Wednesday, February 10, 2010

REQUEST NUMBER: 10-1747

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1747

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/10/2010

TURNAROUND/REPORT DUE: 3/12/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	EPA:906.0	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	

Wednesday, February 10, 2010

REQUEST NUMBER: 10-1747

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	HASL-300:AM-241	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	HASL-300:ISOPU	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	HASL-300:ISOU	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	SW-846:6020	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
		1	RE15-10-8085	W	2/8/2010	

Wednesday, February 10, 2010

REQUEST NUMBER: 10-1747

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
		1	RE15-10-8085	W	2/8/2010	
	SW-846:7470A	1	RE15-10-8085	W	2/8/2010	
	SW-846:7471A	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	SW-846:8321A_MOD	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	SW-846:9012A	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
		1	RE15-10-8085	W	2/8/2010	

Wednesday, February 10, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1747

REQUEST NUMBER: 10-1747

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/12/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7992	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7992	1	POLY	H3	Ice	R
RE15-10-7992	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7992	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7991	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7991	1	POLY	H3	Ice	R
RE15-10-7991	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7991	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7990	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7990	1	POLY	H3	Ice	R
RE15-10-7990	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7990	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7987	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7987	1	POLY	H3	Ice	R
RE15-10-7987	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7987	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7988	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7988	1	POLY	H3	Ice	R
RE15-10-7988	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7988	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7989	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7989	1	POLY	H3	Ice	R
RE15-10-7989	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7989	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8085	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8085	1	POLY	SW-846:6850	Ice	W
RE15-10-8085	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:	Date	Time	Received By:	Date	Time

Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7987 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/08/2010	MEDIA:	OBT3	Alluv
TIME COLLECTED (HH:MM)		0920	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610763	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	✓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	✓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown proper silty sand, roots, some rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-52 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 **dpm**
Beta/Gamma ≤ 1803 **dpm**

HE negative

PID ~~Ambient Reading~~ = **ppm** 13m 2/8/10

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** Larry A Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A Lopez	02/08/10 15:25	(Printed Name) Nicky Martin	2/8/10 325
(Signature) Larry A Lopez		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7988 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/08/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		0940	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610763	↓	FIELD QC TYPE:	NA	↑
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↑
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray tuff and clay

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-52 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 dpm
Beta/Gamma ≤ 1942 dpm

PID ~~Ambient Reading~~ TJM 2/8/10 = ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A. Lopez	02/08/10	(Printed Name) Melissa Martin	2/8/10
(Signature) Larry A. Lopez	15:25	(Signature)	325
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7989 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/08/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1005	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610764	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: moist brown silty sand, some clay, pine needles, leaves

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-28 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 16 dpm
Beta/Gamma ≤ 1969 dpm

PID ~~Ambient Reading~~ = ppm 73m 2/8/10

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** Larry A. López

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A. López	02/08/10	(Printed Name)	2/8/10
(Signature) Larry A. López	15:25	(Signature)	325
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7990 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/08/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1021	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610764	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 dc	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:
Pinkish gray Tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-28, mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 **dpm**
Beta/Gamma ≤ 2050 **dpm**

PID ~~**Ambient Reading**~~ 73m 2/8/10 **= ppm**

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A. Lopez	02/08/10	(Printed Name) [illegible]	2/8/10
(Signature) [signature]	15:25	(Signature) [signature]	325
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7991 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/08/2010	MEDIA:	QBT3	Allh
TIME COLLECTED (HH:MM)		1111	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610765	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

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

SAMPLE DESC: Brown moist silty sand, few tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: 8b 29 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1803 dpm

LC ~~Alpha = ___ dpm~~
~~Beta/Gamma = ___ dpm~~
01-27-10

HE negative
PID ~~Ambient Reading~~ = ppm TZm 2/8/10

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Larry A Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A. Lopez	02/08/10	(Printed Name) [signature]	2/8/10
(Signature) [signature]	15:25	(Signature) [signature]	325
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7992 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/08/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1125	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610765	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray tuff FR RE15-10-8085

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-29 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 **dpm**
Beta/Gamma ≤ 2140 **dpm**

PID ~~**Ambient Reading**~~ = **ppm** 73m 2/8/10

COLLECTED BY (PRINT) TMcFarland **REVIEWED BY (PRINT)** Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A. Lopez	02/08/10	(Printed Name) [illegible]	2/8/10
(Signature) [illegible]	15:25	(Signature) [illegible]	325
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8085 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/08/2010 ~~02/01/2010~~ TZM 2/1/10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1139 ~~1513~~ TZM 2/1/10	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610765 ~~15-610762~~ TZM 2/1/10	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

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

SAMPLE DESC: QC Sample of RE15-10-~~7985~~ 7992 TZM 2/1/10

SAMPLE COMMENTS:
Rinsate

LOCATION DESC:
NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

TZM 2/8/10
Alpha = ____ dpm
Beta/~~Gamma~~ = ____ dpm

TZM 2/8/10
PID ~~Ambient Reading~~ = ppm

COLLECTED BY (PRINT) D M Byers

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A. Lopez	02/08/10	(Printed Name) Melissa Martin	2/8/10
(Signature) Larry A. Lopez	15:25	(Signature) [signature]	3:25
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number): RE15-10-7988
7989
7990
7991
7992
RE15-10-7987

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

The following samples do not require rad screening data for the reasons stated (list sample numbers): RE15-10-8085

Reason: Field Rinsate (FR)

Print Last Name LOPEZ Signature Ramy A. Lopez Date 02/08/2010

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00055	Request or PO Number:	
Client Sample ID:	RE15-10-7987	ARS Sample ID:	ARS2-10-00055-001
Sample Collection Date:	02/08/10 09:20	Date Received:	02/09/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/09/10 16:41

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	23.31	24.00	32.50	24.17		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
GROSS BETA	38.05	15.04	18.18	15.74		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
NA-22	0.06	0.12	0.10	0.12		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
K-40	20.79	7.62	1.59	7.64		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CO-60	0.00	10.38	0.11	10.38		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-134	0.07	0.11	0.08	0.11		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-137	0.06	0.31	0.14	0.31		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
EU-152	0.63	0.52	0.12	0.52		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
PB-212	1.04	0.48	0.19	0.49		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
RA-228	0.98	0.45	0.46	0.45		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-235	1.48	0.76	0.16	0.76		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-238	5.77	4.82	1.87	5.22		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
AM-241	0.00	0.06	0.08	0.06		pCi/g	EPA 901.1M	2/9/2010	NP	N/A

NOTES: % Moisture: 3.51

Matthew L. Eden
Quality Assurance Review

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

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00055
Client Sample ID: RE15-10-7988
Sample Collection Date: 02/08/10 09:40
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00055-002
Date Received: 02/09/10 00:00
Report Date: 02/09/10 16:42

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	1.24	12.17	33.07	13.17		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
GROSS BETA	23.90	12.98	18.20	13.31		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
K-40	22.28	8.95	2.02	8.97		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CO-60	0.00	13.19	0.13	13.19		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-134	0.08	0.12	0.10	0.12		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-137	-0.01	17.26	0.08	17.26		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
EU-152	0.80	0.61	0.13	0.61		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
PB-212	1.71	0.64	0.20	0.64		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
RA-226	0.77	0.61	0.35	0.61		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U 235	1.59	1.04	0.35	1.05		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-238	2.74	2.39	1.12	2.47		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
AM-241	0.28	0.20	0.05	0.20		pCi/g	EPA 901.1M	2/9/2010	NP	N/A

NOTES: % Moisture: 0.82

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00055
Client Sample ID: RE15-10-7989
Sample Collection Date: 02/08/10 10:05
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00055-003
Date Received: 02/09/10 00:00
Report Date: 02/09/10 16:42

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	-0.24	9.83	29.97	9.83		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
GROSS BETA	38.65	15.25	18.95	15.97		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
K-40	25.74	9.13	1.85	9.16		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CO-60	0.00	12.00	0.12	12.09		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-134	0.13	0.14	0.09	0.14		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-137	0.01	0.04	0.08	0.04		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
EU-152	0.00	12.57	0.14	12.57		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
PB-212	1.10	0.50	0.17	0.50		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
RA-226	-0.14	188.17	0.47	188.17		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-235	0.16	0.39	0.39	0.39		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-238	3.88	4.20	1.74	4.29		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
AM-241	0.22	0.32	0.13	0.32		pCi/g	EPA 901.1M	2/9/2010	NP	N/A

NOTES: % Moisture: 2.73

Quality Assurance Review

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

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.
133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00055
Client Sample ID: RE10-10 7990
Sample Collection Date: 02/08/10 10:21
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00055-004
Date Received: 02/09/10 00:00
Report Date: 02/09/10 16:42

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	3.27	13.10	31.64	13.11		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
GROSS BETA	36.06	14.45	18.11	15.11		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
K-40	-0.62	-8.00	2.66	-8.00		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CO-60	0.00	11.67	0.12	11.67		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-134	0.18	0.14	0.09	0.14		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-137	0.21	0.20	0.07	0.20		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
EU-152	0.34	0.46	0.14	0.46		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
PB-212	1.66	0.52	0.10	0.53		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
RA-228	1.60	0.83	0.31	0.83		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-235	1.97	1.25	0.46	1.25		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-238	2.38	2.22	1.08	2.29		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
AM-241	0.34	0.32	0.11	0.32		pCi/g	EPA 901.1M	2/9/2010	NP	N/A

NOTES: % Moisture: 0.96

Matthew L. Eden
Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00055	Request or PO Number:	
Client Sample ID:	RE15-10-7991	ARS Sample ID:	ARS2-10-00055-005
Sample Collection Date:	02/08/10 11:11	Date Received:	02/09/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/09/10 16:42

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	28.25	25.90	32.50	26.13		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
GROSS BETA	42.81	15.63	18.18	16.48		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
NA-22	0.06	0.13	0.10	0.13		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
K-40	-1.46	729.61	1.63	729.61		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CO-60	0.00	10.69	0.11	10.69		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-134	0.06	0.10	0.08	0.10		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-137	-0.01	13.99	0.07	13.99		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
EU-152	0.00	11.12	0.12	11.12		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
PB-212	1.09	0.46	0.15	0.46		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
RA-228	1.78	1.15	0.20	1.15		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-235	0.47	0.80	0.35	0.80		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-238	1.04	3.12	1.42	3.13		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
AM-241	0.00	0.02	0.04	0.02		pCi/g	EPA 901.1M	2/9/2010	NP	N/A

NOTES: % Moisture: 3.38

Matthew L. Eden
Quality Assurance Review

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

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00055	Request or PO Number:	
Client Sample ID:	RE15-10-7992	ARS Sample ID:	ARS2-10-00055-006
Sample Collection Date:	02/08/10 11:25	Date Received:	02/09/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/09/10 16:42

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Cham Recovery
GROSS ALPHA	24.32	24.16	33.19	24.35		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
GROSS BETA	26.74	13.97	18.51	14.34		pCi/g	EPA 900.0M	2/9/2010	NP	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
K-40	-1.99	989.38	2.21	989.38		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CO-60	0.00	14.50	0.15	14.50		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-134	0.21	0.20	0.11	0.20		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
CS-137	0.10	0.16	0.09	0.16		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
EU-152	0.79	0.60	0.17	0.60		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
PB-212	1.69	0.70	0.25	0.70		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
RA-228	0.82	0.49	0.55	0.50		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-235	2.78	1.25	0.23	1.26		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
U-238	5.19	5.21	2.04	5.35		pCi/g	EPA 901.1M	2/9/2010	NP	N/A
AM-241	0.15	0.29	0.13	0.29		pCi/g	EPA 901.1M	2/9/2010	NP	N/A

NOTES: % Moisture: 0.92

Quality Assurance Review

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

LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1747 VALIDATION DATE: 3/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

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

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

Reviewed by: Mary Donivan Level: I Date: 03/30/10

VALIDATOR'S SIGNATURE: DATE: 3/27/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

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

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 952834

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8085

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747-1

GEL Sample ID: 246838001

Date Filtered: 13-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-FEB-10 14:29	per0213107a
	Perchlorate Isotope Ratio						1	14-FEB-10 14:29	per0213107a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-FEB-10 14:29	per0213107a
	Perchlorate-O(18)			0.470	ug/L		1	14-FEB-10 14:29	per0213107a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7992

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837001

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 90.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.55	2.2	0.550	ug/kg	U	1	26-FEB-10 01:46	per0225061a
	Perchlorate Isotope Ratio						1	26-FEB-10 01:46	per0225061a
14797-73-0	Perchlorate-101	.55	2.2	0.550	ug/kg	U	1	26-FEB-10 01:46	per0225061a
	Perchlorate-O(18)			5.40	ug/kg		1	26-FEB-10 01:46	per0225061a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7991

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837002

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.704	2.82	0.704	ug/kg	U	1	26-FEB-10 01:53	per0225062a
	Perchlorate Isotope Ratio						1	26-FEB-10 01:53	per0225062a
14797-73-0	Perchlorate-101	.704	2.82	0.704	ug/kg	U	1	26-FEB-10 01:53	per0225062a
	Perchlorate-O(18)			7.03	ug/kg		1	26-FEB-10 01:53	per0225062a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7990

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837003

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 92

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	26-FEB-10 02:01	per0225063a
	Perchlorate Isotope Ratio						1	26-FEB-10 02:01	per0225063a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	26-FEB-10 02:01	per0225063a
	Perchlorate-O(18)			5.49	ug/kg		1	26-FEB-10 02:01	per0225063a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7987

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837004

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 66

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.762	3.05	0.762	ug/kg	U	1	26-FEB-10 02:08	per0225064a
	Perchlorate Isotope Ratio						1	26-FEB-10 02:08	per0225064a
14797-73-0	Perchlorate-101	.762	3.05	0.762	ug/kg	U	1	26-FEB-10 02:08	per0225064a
	Perchlorate-O(18)			7.89	ug/kg		1	26-FEB-10 02:08	per0225064a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7988

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837005

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	26-FEB-10 02:16	per0225065a
	Perchlorate Isotope Ratio						1	26-FEB-10 02:16	per0225065a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	26-FEB-10 02:16	per0225065a
	Perchlorate-O(18)			5.87	ug/kg		1	26-FEB-10 02:16	per0225065a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7989

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837006

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.681	2.72	0.681	ug/kg	U	1	26-FEB-10 15:45	per0226012a
	Perchlorate Isotope Ratio						1	26-FEB-10 15:45	per0226012a
14797-73-0	Perchlorate-101	.681	2.72	0.681	ug/kg	U	1	26-FEB-10 15:45	per0226012a
	Perchlorate-O(18)			6.66	ug/kg		1	26-FEB-10 15:45	per0226012a

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

*Concentration =

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

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DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1747 VALIDATION DATE: 3/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

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

1. In a CCV associated with the samples, the %D was >20% with a positive bias for PETN. The associated sample results were NDs and, thus, were not qualified.
2. The MS %R was < the laboratory LAL but ≥10% for tetryl. The associated sample results were NDs and, thus, were qualified UJ,HE12e.
3. It should be noted that the MS and MSD parent sample was from another LANL RN and the raw data for the parent sample was not included in the package. No sample data were qualified as a result.
4. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate retention time criteria could not be evaluated. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/30/10

VALIDATOR'S SIGNATURE: DATE: 3/27/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☒	☐	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7992

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837001

Sample Amount 2

Moisture: 9.1

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304061a

Date Analyzed: 05-MAR-10 20:46

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene		500	U
479-45-8	Tetryl	UJ,HE12e	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN		1000	U
88-72-2	o-Nitrotoluene		500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene		500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene		500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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3/27/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7992

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837001

Sample Amount 2

Moisture: 9.1

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250052.wiff

Date Analyzed: 25-FEB-10 21:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7991

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837002

Sample Amount 2

Moisture: 29.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304062a

Date Analyzed: 05-MAR-10 21:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12e	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7991

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837002

Sample Amount 2

Moisture: 29.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250053.wiff

Date Analyzed: 25-FEB-10 22:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7990

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837003

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304063a

Date Analyzed: 05-MAR-10 21:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12e	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7990

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837003

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250054.wiff

Date Analyzed: 25-FEB-10 22:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7987

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837004

Sample Amount 2

Moisture: 34.4

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304067a

Date Analyzed: 05-MAR-10 23:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12e	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7987

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837004

Sample Amount 2

Moisture: 34.4

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250055.wiff

Date Analyzed: 25-FEB-10 22:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7988

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837005

Sample Amount 2

Moisture: 9.2

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304068a

Date Analyzed: 06-MAR-10 00:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12e	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7988

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837005

Sample Amount 2

Moisture: 9.2

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260014.wiff

Date Analyzed: 26-FEB-10 18:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7989

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837006

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304069a

Date Analyzed: 06-MAR-10 00:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12e	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7989

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837006

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260015.wiff

Date Analyzed: 26-FEB-10 18:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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3/27/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1747 VALIDATION DATE: 3/29/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

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

1. In the aqueous MB, Mg and Na were detected. The associated sample result for Na was a detect ≤5X the MB concentrations and, thus, was qualified U,I4. The associated sample result for Mg was an ND and, thus, was not qualified.
2. In the aqueous ICB and/or CCBs, K, Mg, Tl, and Zn were detected. The associated sample result for K was a detect ≤5X the greatest blank concentration and, thus, was qualified U,I4b. All other associated sample results were NDs and, thus were not qualified. In the soil ICB and/or CCBs, Ag, Ba, Cd, Co, Cr, Mn, Pb, Sb, and V were detected. The associated sample results for Cd; the results for Ag in samples RE15-10-7989, -7990, and -7992; and the result for Sb in sample -7992 were detects ≤5X the greatest blank concentrations and, thus, were qualified U,I4b. All other associated sample results were either detects >5X the greatest blank concentrations or were NDs and, thus were not qualified.
3. In the FR blank (sample -8085) associated with all field samples, Al, Ca, Cu, Fe, and Mn were detected. The associated sample results were >5X the FR blank concentration and, thus, were not qualified.
4. The soil MS %Rs were > the laboratory's UAL for Al, Mg, and Ni. The associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %R was < the laboratory's LAL but ≥10% for Mn. However, the associated parent sample result was >4X the spike concentration and, thus, no sample results were qualified, based on professional judgment.
5. It should be noted that the aqueous matrix QC parent samples were from other LANL RNs. No sample results were qualified as a result.

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Reviewed by: Mary Donivan Level: I Date: 03/30/10

VALIDATOR'S SIGNATURE: DATE: 3/29/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

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

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

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

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246838001 **BASIS:** As Received **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-8085 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	75.4	ug/L	J	68	200	200	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/07/10 07:10	100306-4	952951
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/07/10 07:10	100306-4	952951
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/07/10 07:10	100306-4	952951
7440-70-2	Calcium	70.9	ug/L	J	50	200	200	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-50-8	Copper	4.17	ug/L	J	3	10	10	1	P	HSC	03/10/10 11:10	030910-2	952949
7439-89-6	Iron	49.9	ug/L	J	30	100	100	1	P	HSC	03/10/10 11:10	030910-2	952949
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	03/07/10 09:53	100306-3	952951
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/10/10 11:10	030910-2	952949
7439-96-5	Manganese	1.92	ug/L	J	1	5	5	1	MS	BAJ	03/07/10 07:10	100306-4	952951
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/18/10 12:26	021810W1-9	954258
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-09-7	Potassium U,I4b	203	ug/L		50	150	150	1	P	HSC	03/10/10 11:10	030910-2	952949
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-23-5	Sodium U,I4	235	ug/L	J	100	300	300	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	03/07/10 07:10	100306-4	952951
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	03/07/10 10:28	100306-8	952951
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/05/10 04:09	030410-1	952949

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952949	952948	SW846 3005A	50	mL	50	mL	02/22/10	AXG2
952951	952950	SW846 3005A	50	mL	50	mL	02/22/10	AXG2
954258	954255	SW846 7470A Prep	20	mL	20	mL	02/17/10	TXB3

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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837001 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7992 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1830000	ug/Kg	N	7440	21900	21900	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-36-0	Antimony U,I4b	1290	ug/Kg	*	361	1090	1090	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-38-2	Arsenic	0.757	mg/kg	J	0.215	1.08	1.08	2	MS	BAJ	03/08/10 18:03	100308-3	952947
7440-39-3	Barium	21300	ug/Kg		109	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-41-7	Beryllium	0.371	mg/kg		0.0215	0.108	0.108	2	MS	BAJ	03/08/10 18:03	100308-3	952947
7440-43-9	Cadmium U,I4b	886	ug/Kg	*	109	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-70-2	Calcium	399000	ug/Kg		8750	27300	27300	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-47-3	Chromium	8690	ug/Kg	*	164	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-48-4	Cobalt	5190	ug/Kg		164	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-50-8	Copper	6080	ug/Kg	*	328	1090	1090	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7439-89-6	Iron	9330000	ug/Kg		8750	27300	27300	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7439-92-1	Lead	5550	ug/Kg		273	1090	1090	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7439-95-4	Magnesium J+,I6b	352000	ug/Kg	N	9300	32800	32800	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7439-96-5	Manganese	272000	ug/Kg		219	1090	1090	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7439-97-6	Mercury	19.6	ug/kg		4.35	12.8	12.8	1	AV	JXL1	02/26/10 11:08	022610S1-4	957797
7440-02-0	Nickel J+,I6b	17	mg/kg	*N	0.105	0.42	0.42	2	MS	PRB	03/10/10 20:36	100310-2	963319
7440-09-7	Potassium	408000	ug/Kg		7000	27300	27300	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7782-49-2	Selenium	1.08	mg/kg	U	0.538	1.08	1.08	2	MS	BAJ	03/08/10 18:03	100308-3	952947
7440-22-4	Silver U,I4b	501	ug/Kg	J	109	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-23-5	Sodium	214000	ug/Kg		7660	27300	27300	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-28-0	Thallium	0.215	mg/kg	U	0.0646	0.215	0.215	2	MS	BAJ	03/08/10 18:03	100308-3	952947
7440-61-1	Uranium	0.548	mg/kg		0.0139	0.042	0.042	2	MS	PRB	03/10/10 20:36	100310-2	963319
7440-62-2	Vanadium	5660	ug/Kg	*E	109	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-66-6	Zinc	46800	ug/Kg		361	1090	1090	1	P	JWJ	02/27/10 19:37	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.503	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.511	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.516	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.524	g	50	mL	03/10/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837002 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7991 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 71

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	3450000	ug/Kg	N	8780	25800	25800	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-36-0	Antimony	1290	ug/Kg	U*	426	1290	1290	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-38-2	Arsenic	1.62	mg/kg		0.281	1.41	1.41	2	MS	BAJ	03/08/10 18:21	100308-3	952947
7440-39-3	Barium	44300	ug/Kg		129	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-41-7	Beryllium	0.512	mg/kg		0.0281	0.141	0.141	2	MS	BAJ	03/08/10 18:21	100308-3	952947
7440-43-9	Cadmium U,I4b	436	ug/Kg	J*	129	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-70-2	Calcium	1170000	ug/Kg		10300	32300	32300	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-47-3	Chromium	3690	ug/Kg	*	194	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-48-4	Cobalt	12900	ug/Kg		194	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-50-8	Copper	6890	ug/Kg	*	388	1290	1290	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7439-89-6	Iron	11400000	ug/Kg		10300	32300	32300	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7439-92-1	Lead	19300	ug/Kg		323	1290	1290	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7439-95-4	Magnesium J+,I6b	559000	ug/Kg	N	11000	38800	38800	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7439-96-5	Manganese	369000	ug/Kg		258	1290	1290	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7439-97-6	Mercury	21.5	ug/kg		5.67	16.7	16.7	1	AV	JXL1	02/26/10 11:10	022610S1-4	957797
7440-02-0	Nickel J+,I6b	3.23	mg/kg	*N	0.132	0.528	0.528	2	MS	PRB	03/10/10 20:58	100310-2	963319
7440-09-7	Potassium	864000	ug/Kg		8270	32300	32300	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7782-49-2	Selenium	1.41	mg/kg	U	0.703	1.41	1.41	2	MS	BAJ	03/08/10 18:21	100308-3	952947
7440-22-4	Silver	798	ug/Kg		129	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-23-5	Sodium	430000	ug/Kg		9040	32300	32300	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-28-0	Thallium	0.281	mg/kg	U	0.0843	0.281	0.281	2	MS	BAJ	03/08/10 18:21	100308-3	952947
7440-61-1	Uranium	2.8	mg/kg		0.0174	0.0528	0.0528	2	MS	PRB	03/10/10 20:58	100310-2	963319
7440-62-2	Vanadium	6190	ug/Kg	*E	129	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-66-6	Zinc	46400	ug/Kg		426	1290	1290	1	P	JWJ	02/27/10 20:02	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.545	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.501	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.507	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.533	g	50	mL	03/10/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837003 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7990 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 92

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1940000	ug/Kg	N	7330	21600	21600	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-36-0	Antimony	1080	ug/Kg	U*	356	1080	1080	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-38-2	Arsenic	0.839	mg/kg	J	0.217	1.08	1.08	2	MS	BAJ	03/08/10 18:32	100308-3	952947
7440-39-3	Barium	30500	ug/Kg		108	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-41-7	Beryllium	0.283	mg/kg		0.0217	0.108	0.108	2	MS	BAJ	03/08/10 18:32	100308-3	952947
7440-43-9	Cadmium U,I4b	210	ug/Kg	J*	108	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-70-2	Calcium	543000	ug/Kg		8630	27000	27000	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-47-3	Chromium	5270	ug/Kg	*	162	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-48-4	Cobalt	4040	ug/Kg		162	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-50-8	Copper	4570	ug/Kg	*	323	1080	1080	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7439-89-6	Iron	8710000	ug/Kg		8630	27000	27000	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7439-92-1	Lead	5860	ug/Kg		270	1080	1080	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7439-95-4	Magnesium J+,I6b	370000	ug/Kg	N	9170	32300	32300	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7439-96-5	Manganese	290000	ug/Kg		216	1080	1080	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7439-97-6	Mercury	11.7	ug/kg	J	4.14	12.2	12.2	1	AV	JXL1	02/26/10 11:12	022610S1-4	957797
7440-02-0	Nickel J+,I6b	11.3	mg/kg	*N	0.103	0.413	0.413	2	MS	PRB	03/10/10 21:00	100310-2	963319
7440-09-7	Potassium	400000	ug/Kg		6900	27000	27000	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7782-49-2	Selenium	1.08	mg/kg	U	0.542	1.08	1.08	2	MS	BAJ	03/08/10 18:32	100308-3	952947
7440-22-4	Silver U,I4b	147	ug/Kg	J	108	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-23-5	Sodium	169000	ug/Kg		7550	27000	27000	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-28-0	Thallium	0.217	mg/kg	U	0.0651	0.217	0.217	2	MS	BAJ	03/08/10 18:32	100308-3	952947
7440-61-1	Uranium	1.47	mg/kg		0.0136	0.0413	0.0413	2	MS	PRB	03/10/10 21:00	100310-2	963319
7440-62-2	Vanadium	6710	ug/Kg	*E	108	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-66-6	Zinc	37500	ug/Kg		356	1080	1080	1	P	JWJ	02/27/10 20:06	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.504	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.501	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.535	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.526	g	50	mL	03/10/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837004 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7987 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 66

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	5640000	ug/Kg	N	9320	27400	27400	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-36-0	Antimony	1370	ug/Kg	U*	452	1370	1370	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-38-2	Arsenic	1.85	mg/kg		0.279	1.4	1.4	2	MS	BAJ	03/08/10 18:36	100308-3	952947
7440-39-3	Barium	91700	ug/Kg		137	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-41-7	Beryllium	0.777	mg/kg		0.0279	0.14	0.14	2	MS	BAJ	03/08/10 18:36	100308-3	952947
7440-43-9	Cadmium U,I4b	425	ug/Kg	J*	137	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-70-2	Calcium	2060000	ug/Kg		11000	34300	34300	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-47-3	Chromium	8220	ug/Kg	*	206	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-48-4	Cobalt	3690	ug/Kg		206	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-50-8	Copper	9880	ug/Kg	*	411	1370	1370	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7439-89-6	Iron	10200000	ug/Kg		11000	34300	34300	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7439-92-1	Lead	18900	ug/Kg		343	1370	1370	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7439-95-4	Magnesium J+,I6b	1200000	ug/Kg	N	11700	41100	41100	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7439-96-5	Manganese	298000	ug/Kg		274	1370	1370	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7439-97-6	Mercury	7.06	ug/kg	J	5.56	16.4	16.4	1	AV	JXL1	02/26/10 11:14	022610S1-4	957797
7440-02-0	Nickel J+,I6b	5.24	mg/kg	*N	0.14	0.562	0.562	2	MS	PRB	03/10/10 21:03	100310-2	963319
7440-09-7	Potassium	1150000	ug/Kg		8780	34300	34300	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7782-49-2	Selenium	1.4	mg/kg	U	0.698	1.4	1.4	2	MS	BAJ	03/08/10 18:36	100308-3	952947
7440-22-4	Silver	686	ug/Kg	U	137	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-23-5	Sodium	42100	ug/Kg		9600	34300	34300	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-28-0	Thallium	0.140	mg/kg	J	0.0838	0.279	0.279	2	MS	BAJ	03/08/10 18:36	100308-3	952947
7440-61-1	Uranium	13.7	mg/kg		0.0185	0.0562	0.0562	2	MS	PRB	03/10/10 21:03	100310-2	963319
7440-62-2	Vanadium	18700	ug/Kg	*E	137	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-66-6	Zinc	29900	ug/Kg		452	1370	1370	1	P	JWJ	02/27/10 20:09	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.556	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.546	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.559	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.543	g	50	mL	03/10/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837005 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7988 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	4920000	ug/Kg	N	7480	22000	22000	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7440-36-0	Antimony	1100	ug/Kg	U*	363	1100	1100	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7440-38-2	Arsenic	1.23	mg/kg		0.219	1.1	1.1	2	MS	BAJ	03/08/10 18:39	100308-3	952947
7440-39-3	Barium	52200	ug/Kg		110	550	550	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7440-41-7	Beryllium	0.379	mg/kg		0.0219	0.11	0.11	2	MS	BAJ	03/08/10 18:39	100308-3	952947
7440-43-9	Cadmium U,I4b	247	ug/Kg	J*	110	550	550	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7440-70-2	Calcium	1220000	ug/Kg		8800	27500	27500	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7440-47-3	Chromium	10500	ug/Kg	*	165	550	550	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7440-48-4	Cobalt	4410	ug/Kg		165	550	550	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7440-50-8	Copper	5560	ug/Kg	*	330	1100	1100	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7439-89-6	Iron	10700000	ug/Kg		8800	27500	27500	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7439-92-1	Lead	5850	ug/Kg		275	1100	1100	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7439-95-4	Magnesium J+,I6b	915000	ug/Kg	N	9350	33000	33000	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7439-96-5	Manganese	195000	ug/Kg		220	1100	1100	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7439-97-6	Mercury	9.93	ug/kg	J	4.17	12.3	12.3	1	AV	JXL1	02/26/10 11:16	022610S1-4	957797
7440-02-0	Nickel J+,I6b	12.3	mg/kg	*N	0.109	0.437	0.437	2	MS	PRB	03/10/10 21:05	100310-2	963319
7440-09-7	Potassium	819000	ug/Kg		7040	27500	27500	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7782-49-2	Selenium	1.1	mg/kg	U	0.549	1.1	1.1	2	MS	BAJ	03/08/10 18:39	100308-3	952947
7440-22-4	Silver	550	ug/Kg	U	110	550	550	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7440-23-5	Sodium	178000	ug/Kg		7700	27500	27500	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7440-28-0	Thallium	0.219	mg/kg	U	0.0658	0.219	0.219	2	MS	BAJ	03/08/10 18:39	100308-3	952947
7440-61-1	Uranium	0.905	mg/kg		0.0144	0.0437	0.0437	2	MS	PRB	03/10/10 21:05	100310-2	963319
7440-62-2	Vanadium	10200	ug/Kg	*E	110	550	550	1	P	JWJ	02/27/10 20:13	022710B-1	952945
7440-66-6	Zinc	38800	ug/Kg		363	1100	1100	1	P	JWJ	02/27/10 20:13	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.501	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.502	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.539	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.504	g	50	mL	03/10/10	AXG2

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3/29/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837006 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7989 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	7090000	ug/Kg	N	8320	24500	24500	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-36-0	Antimony	1220	ug/Kg	U*	404	1220	1220	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-38-2	Arsenic	2.05	mg/kg		0.234	1.17	1.17	2	MS	BAJ	03/08/10 18:43	100308-3	952947
7440-39-3	Barium	88700	ug/Kg		122	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-41-7	Beryllium	0.627	mg/kg		0.0234	0.117	0.117	2	MS	BAJ	03/08/10 18:43	100308-3	952947
7440-43-9	Cadmium U,I4b	402	ug/Kg	J*	122	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-70-2	Calcium	2030000	ug/Kg		9780	30600	30600	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-47-3	Chromium	6240	ug/Kg	*	183	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-48-4	Cobalt	5950	ug/Kg		183	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-50-8	Copper	12700	ug/Kg	*	367	1220	1220	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7439-89-6	Iron	10200000	ug/Kg		9780	30600	30600	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7439-92-1	Lead	19200	ug/Kg		306	1220	1220	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7439-95-4	Magnesium J+,I6b	1340000	ug/Kg	N	10400	36700	36700	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7439-96-5	Manganese	288000	ug/Kg		245	1220	1220	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7439-97-6	Mercury	10.8	ug/kg	J	5.06	14.9	14.9	1	AV	JXL1	02/26/10 11:18	022610S1-4	957797
7440-02-0	Nickel J+,I6b	5.41	mg/kg	*N	0.12	0.48	0.48	2	MS	PRB	03/10/10 21:07	100310-2	963319
7440-09-7	Potassium	1200000	ug/Kg		7830	30600	30600	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7782-49-2	Selenium	1.17	mg/kg	U	0.585	1.17	1.17	2	MS	BAJ	03/08/10 18:43	100308-3	952947
7440-22-4	Silver U,I4b	356	ug/Kg	J	122	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-23-5	Sodium	69300	ug/Kg		8560	30600	30600	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-28-0	Thallium	0.103	mg/kg	J	0.0702	0.234	0.234	2	MS	BAJ	03/08/10 18:43	100308-3	952947
7440-61-1	Uranium	9.09	mg/kg		0.0158	0.048	0.048	2	MS	PRB	03/10/10 21:07	100310-2	963319
7440-62-2	Vanadium	17000	ug/Kg	*E	122	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-66-6	Zinc	26700	ug/Kg		404	1220	1220	1	P	JWJ	02/27/10 20:17	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.557	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.582	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.549	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.568	g	50	mL	03/10/10	AXG2

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3/29/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1747 VALIDATION DATE: 3/29/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

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

1. It should be noted that the aqueous matrix QC analysis were performed on a parent sample from another LANL RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/30/10

VALIDATOR'S SIGNATURE: DATE: 3/29/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

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

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

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

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 6, 2010

Client SDG: 10-1747-1

Client Sample ID:	RE15-10-8085	Project:	LANL01004
Sample ID:	246838001	Client ID:	LANL010
Matrix:	W		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/17/10	1104	953089	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/16/10	1532	953087

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
3/29/10

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7992	Project:	LANL01004
Sample ID:	246837001	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	9.14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.8	275	ug/kg	1	AXC2 02/18/10	1058	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
3/29/10

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7991	Project:	LANL01004
Sample ID:	246837002	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	29%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	92.1	338	ug/kg	1	AXC2 02/18/10	1102	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
3/29/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7990	Project:	LANL01004
Sample ID:	246837003	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.4	252	ug/kg	1	AXC2 02/18/10	1102	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
3/29/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7987	Project:	LANL01004
Sample ID:	246837004	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	34.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	181	97.8	360	ug/kg	1	AXC2 02/18/10	1103	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
3/29/10

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7988	Project:	LANL01004
Sample ID:	246837005	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	9.23%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.9	275	ug/kg	1	AXC2 02/18/10	1104	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7989	Project:	LANL01004
Sample ID:	246837006	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	26.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	89.1	327	ug/kg	1	AXC2 02/18/10	1105	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1747 VALIDATION DATE: 3/29/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

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

1. All gamma spec sample results that were rejected by the laboratory due to interference or low abundance were qualified R,R5a. In the QC samples, the laboratory also rejected several results. No sample data were qualified as a result.
2. The alpha spec Am-243 tracer %R in sample RE15-10-7989 and the alpha spec U-232 tracer %R in sample -7992 were < the laboratory LAL. The associated U-233/234 and U-238 sample results were detects and, thus, were qualified J+,R3b. All other associated sample results were NDs and, thus, were not qualified.
3. It should be noted that an MS was not analyzed for tritium. However, an LCS was analyzed and met acceptance criteria, thus, no sample data were qualified.
4. It should be noted that the matrix QC parent samples for gamma spec and tritium were from other LANL RNs. No sample results were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/30/10

VALIDATOR'S SIGNATURE: DATE: 3/29/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7992
Sample ID: 246837001
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 9.14%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00181		0.024	+/-0.00781	0.050	pCi/g		CXM2	02/27/10	1956	953337	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00118		0.0192	+/-0.00611	0.050	pCi/g		CXM2	02/27/10	1956	953338	3
Plutonium-239/240	U	-0.00118		0.0145	+/-0.00311	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.776	J+,R3b	0.144	+/-0.0883	0.100	pCi/g		CXM2	02/27/10	1644	953339	4
Uranium-235/236	U	0.0141		0.0916	+/-0.010	0.100	pCi/g						
Uranium-238		0.786	J+,R3b	0.0981	+/-0.0895	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0173		0.175	+/-0.0513	0.200	pCi/g		MXR1	02/23/10	1205	952641	5
Bismuth-211	UI	3.57	R,R5a	0.281	+/-0.303		pCi/g						
Bismuth-214		1.11		0.0999	+/-0.0911	0.200	pCi/g						
Cadmium-109	UI	3.01	R,R5a	1.08	+/-0.393		pCi/g						
Cerium-139	U	0.00164		0.0417	+/-0.0118	0.050	pCi/g						
Cesium-134	UI	0.152	R,R5a	0.0838	+/-0.0303	0.100	pCi/g						
Cesium-137	U	-0.0187		0.0558	+/-0.0175	0.100	pCi/g						
Cobalt-60	U	0.0015		0.0561	+/-0.0171	0.100	pCi/g						
Europium-152	U	-0.0537		0.129	+/-0.0409	0.200	pCi/g						
Lanthanum-140	U	-0.063		0.105	+/-0.0361		pCi/g						
Lead-212		1.77		0.0791	+/-0.134	0.100	pCi/g						
Lead-214		1.24		0.098	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.0371		0.0579	+/-0.0215	0.100	pCi/g						
Potassium-40		35.9		0.412	+/-1.78	1.00	pCi/g						
Radium-223	U	0.0481		0.907	+/-0.305		pCi/g						
Radium-224	UI	4.86	R,R5a	0.900	+/-0.697		pCi/g						
Radium-226		1.11		0.0999	+/-0.0911		pCi/g						
Radium-228		1.94		0.184	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.134		0.436	+/-0.136	0.800	pCi/g						

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Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7992
Sample ID: 246837001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	0.0109	0.0701	+/-0.0209	0.080	pCi/g						
Strontium-85	U	0.0279	0.0562	+/-0.0175		pCi/g						
Thallium-208		0.541	0.050	+/-0.0489	0.080	pCi/g						
Thorium-227	U	-0.132	0.555	+/-0.167		pCi/g						
Thorium-231	U	0.0481	0.907	+/-0.305		pCi/g						
Thorium-234	U	0.763	1.69	+/-0.482	2.00	pCi/g						
Tin-113	U	-0.0111	0.0592	+/-0.0172	0.100	pCi/g						
Uranium-235	U	0.0111	0.298	+/-0.0849	0.500	pCi/g						
Yttrium-88	U	-0.0252	0.0438	+/-0.0157	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		377	180	+/-65.7	250	pCi/L		KXK2	02/23/10	0712	953111	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	48.5 *	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7991
Sample ID: 246837002
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 29%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.0018		0.021	+/-0.00707	0.050	pCi/g		CXM2	02/27/10	1956	953337	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00236		0.0193	+/-0.00553	0.050	pCi/g		CXM2	02/27/10	1956	953338	3
Plutonium-239/240	U	-0.00236		0.0145	+/-0.00373	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.721		0.0983	+/-0.0738	0.100	pCi/g		CXM2	02/27/10	1644	953339	4
Uranium-235/236		0.0674		0.0627	+/-0.0199	0.100	pCi/g						
Uranium-238		0.997		0.0671	+/-0.0945	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0291		0.523	+/-0.173	0.200	pCi/g		MXR1	02/23/10	1205	952641	5
Bismuth-211	UI	4.11	R,R5a	0.416	+/-0.357		pCi/g						
Bismuth-214		1.09		0.149	+/-0.119	0.200	pCi/g						
Cadmium-109	UI	3.99	R,R5a	1.78	+/-0.896		pCi/g						
Cerium-139	U	0.0158		0.0683	+/-0.0203	0.050	pCi/g						
Cesium-134	U	0.0962		0.107	+/-0.0285	0.100	pCi/g						
Cesium-137	U	0.00563		0.0789	+/-0.023	0.100	pCi/g						
Cobalt-60	U	0.012		0.0917	+/-0.0278	0.100	pCi/g						
Europium-152	U	0.0155		0.215	+/-0.083	0.200	pCi/g						
Lanthanum-140	U	-0.104		0.125	+/-0.0472		pCi/g						
Lead-212		1.78		0.120	+/-0.126	0.100	pCi/g						
Lead-214		1.43		0.145	+/-0.130	0.100	pCi/g						
Mercury-203	U	0.016		0.0967	+/-0.0279	0.100	pCi/g						
Potassium-40		37.8		0.666	+/-2.18	1.00	pCi/g						
Radium-223	U	-0.716		1.40	+/-0.506		pCi/g						
Radium-224	UI	5.07	R,R5a	1.36	+/-0.786		pCi/g						
Radium-226		1.09		0.149	+/-0.119		pCi/g						
Radium-228		1.82		0.269	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	-0.103		0.640	+/-0.201	0.800	pCi/g						
Sodium-22	U	-0.0286		0.096	+/-0.0311	0.080	pCi/g						

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Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7991
Sample ID: 246837002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.127	R,R5a	0.0905	+/-0.0268		pCi/g						
Thallium-208		0.510		0.0704	+/-0.0545	0.080	pCi/g						
Thorium-227	U	-0.409		0.796	+/-0.245		pCi/g						
Thorium-231	U	-0.716		1.40	+/-0.506		pCi/g						
Thorium-234	U	2.75		4.04	+/-1.32	2.00	pCi/g						
Tin-113	U	-0.0183		0.0955	+/-0.029	0.100	pCi/g						
Uranium-235	U	-0.384		0.441	+/-0.146	0.500	pCi/g						
Yttrium-88	U	-0.00429		0.0544	+/-0.0172	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium	U	36.7		180	+/-53.5	250	pCi/L		KXK2	02/23/10	0849	953111	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	75.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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3/29/10

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7990
Sample ID: 246837003
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00395		0.0342	+/-0.0132	0.050	pCi/g		CXM2	02/27/10	1956	953337	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00242		0.0198	+/-0.00726	0.050	pCi/g		CXM2	02/27/10	1945	953338	3
Plutonium-239/240	U	0.00363		0.0149	+/-0.00271	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.779		0.089	+/-0.0758	0.100	pCi/g		CXM2	02/27/10	1644	953339	4
Uranium-235/236		0.0915		0.0567	+/-0.0219	0.100	pCi/g						
Uranium-238		0.864		0.0607	+/-0.0822	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0246		0.105	+/-0.0295	0.200	pCi/g		MXR1	02/23/10	1206	952641	5
Bismuth-211	UI	3.34	R,R5a	0.338	+/-0.289		pCi/g						
Bismuth-214		1.06		0.129	+/-0.0992	0.200	pCi/g						
Cadmium-109	UI	2.35	R,R5a	1.07	+/-0.445		pCi/g						
Cerium-139	U	-0.0149		0.0476	+/-0.0142	0.050	pCi/g						
Cesium-134	UI	0.198	R,R5a	0.123	+/-0.0509	0.100	pCi/g						
Cesium-137	U	0.00323		0.0763	+/-0.0231	0.100	pCi/g						
Cobalt-60	U	-0.00677		0.0783	+/-0.0236	0.100	pCi/g						
Europium-152	U	-0.0785		0.149	+/-0.0495	0.200	pCi/g						
Lanthanum-140	U	-0.0596		0.134	+/-0.0463		pCi/g						
Lead-212		1.58		0.0936	+/-0.0974	0.100	pCi/g						
Lead-214		1.16		0.118	+/-0.105	0.100	pCi/g						
Mercury-203	UI	0.0737	R,R5a	0.0594	+/-0.030	0.100	pCi/g						
Potassium-40		33.0		0.416	+/-1.81	1.00	pCi/g						
Radium-223	U	0.459		1.11	+/-0.343		pCi/g						
Radium-224	UI	4.17	R,R5a	1.07	+/-0.618		pCi/g						
Radium-226		1.06		0.129	+/-0.0992		pCi/g						
Radium-228		1.48		0.233	+/-0.185	0.500	pCi/g						
Ruthenium-106	U	0.310		0.708	+/-0.202	0.800	pCi/g						
Sodium-22	U	-0.00253		0.0987	+/-0.0306	0.080	pCi/g						

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7990
Sample ID: 246837003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0223	0.0669	+/-0.0215		pCi/g						
Thallium-208		0.537	0.0694	+/-0.0527	0.080	pCi/g						
Thorium-227	U	-0.164	0.606	+/-0.189		pCi/g						
Thorium-231	U	0.459	1.11	+/-0.343		pCi/g						
Thorium-234		1.33	1.01	+/-0.414	2.00	pCi/g						
Tin-113	U	-0.0251	0.0751	+/-0.0227	0.100	pCi/g						
Uranium-235	U	-0.0949	0.335	+/-0.0988	0.500	pCi/g						
Yttrium-88	U	-0.00659	0.057	+/-0.0183	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1290	180	+/-117	250	pCi/L		KXK2	02/23/10	1025	953111	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	55.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7987
Sample ID: 246837004
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 34.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0185		0.0231	+/-0.00997	0.050	pCi/g		CXM2	02/27/10	1956	953337	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00543		0.0222	+/-0.00334	0.050	pCi/g		CXM2	02/27/10	1945	953338	3
Plutonium-239/240		0.0367		0.0167	+/-0.00757	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		4.53		0.129	+/-0.365	0.100	pCi/g		CXM2	03/02/10	1358	953339	4
Uranium-235/236		0.340		0.082	+/-0.0526	0.100	pCi/g						
Uranium-238		13.3		0.0878	+/-1.01	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.109		0.249	+/-0.0782	0.200	pCi/g		MXR1	02/23/10	1206	952641	6
Bismuth-211	UI	3.96	R,R5a	0.312	+/-0.319		pCi/g						
Bismuth-214		1.19		0.104	+/-0.0985	0.200	pCi/g						
Cadmium-109	UI	2.18	R,R5a	1.68	+/-0.527		pCi/g						
Cerium-139	U	-0.00758		0.050	+/-0.0147	0.050	pCi/g						
Cesium-134	U	0.0633		0.0797	+/-0.0252	0.100	pCi/g						
Cesium-137		0.527		0.0593	+/-0.0433	0.100	pCi/g						
Cobalt-60	U	-0.00562		0.0534	+/-0.0165	0.100	pCi/g						
Europium-152	U	-0.0421		0.154	+/-0.0538	0.200	pCi/g						
Lanthanum-140	U	-0.000272		0.118	+/-0.0408		pCi/g						
Lead-212		1.70		0.0901	+/-0.125	0.100	pCi/g						
Lead-214		1.38		0.111	+/-0.117	0.100	pCi/g						
Mercury-203	U	0.0506		0.0691	+/-0.0204	0.100	pCi/g						
Potassium-40		26.7		0.448	+/-1.40	1.00	pCi/g						
Radium-223	U	-0.00621		1.05	+/-0.354		pCi/g						
Radium-224	UI	4.48	R,R5a	1.02	+/-0.644		pCi/g						
Radium-226		1.19		0.104	+/-0.0985		pCi/g						
Radium-228		1.46		0.195	+/-0.181	0.500	pCi/g						
Ruthenium-106	U	-0.0302		0.473	+/-0.143	0.800	pCi/g						
Sodium-22	U	0.00857		0.0667	+/-0.0199	0.080	pCi/g						

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7987
Sample ID: 246837004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.148	R,R5a	0.0737	+/-0.0228		pCi/g						
Thallium-208		0.537		0.0529	+/-0.0466	0.080	pCi/g						
Thorium-227	U	-0.129		0.637	+/-0.197		pCi/g						
Thorium-231	U	-0.00621		1.05	+/-0.354		pCi/g						
Thorium-234		7.60		2.08	+/-1.12	2.00	pCi/g						
Tin-113	U	0.0508		0.0738	+/-0.021	0.100	pCi/g						
Uranium-235	U	0.0436		0.378	+/-0.113	0.500	pCi/g						
Yttrium-88	U	-0.00141		0.0497	+/-0.0153	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		245		181	+/-60.5	250	pCi/L		KXK2	02/23/10	1201	953111	7

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	71.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7988
Sample ID: 246837005
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 9.23%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00189		0.0195	+/-0.00152	0.050	pCi/g		CXM2	02/27/10	1636	953337	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00122		0.020	+/-0.00173	0.050	pCi/g		CXM2	02/27/10	1945	953338	3
Plutonium-239/240	U	0.00122		0.015	+/-0.00366	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.872		0.0922	+/-0.0838	0.100	pCi/g		CXM2	02/27/10	1644	953339	4
Uranium-235/236	U	0.0451		0.0588	+/-0.0146	0.100	pCi/g						
Uranium-238		0.719		0.0629	+/-0.0721	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.033		0.0768	+/-0.0239	0.200	pCi/g		MXR1	02/23/10	1207	952641	5
Bismuth-211	UI	3.69	R,R5a	0.292	+/-0.284		pCi/g						
Bismuth-214		1.21		0.108	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	3.90	R,R5a	0.682	+/-0.368		pCi/g						
Cerium-139	U	0.00352		0.0409	+/-0.0118	0.050	pCi/g						
Cesium-134	UI	0.122	R,R5a	0.102	+/-0.0274	0.100	pCi/g						
Cesium-137	U	-0.0123		0.0749	+/-0.0215	0.100	pCi/g						
Cobalt-60	U	0.00286		0.0658	+/-0.0198	0.100	pCi/g						
Europium-152	U	0.00986		0.143	+/-0.0464	0.200	pCi/g						
Lanthanum-140	U	-0.0529		0.124	+/-0.0411		pCi/g						
Lead-212		1.63		0.0791	+/-0.106	0.100	pCi/g						
Lead-214		1.28		0.102	+/-0.104	0.100	pCi/g						
Mercury-203	U	0.0333		0.0624	+/-0.0202	0.100	pCi/g						
Potassium-40		35.8		0.443	+/-1.80	1.00	pCi/g						
Radium-223	U	-0.687		0.943	+/-0.297		pCi/g						
Radium-224	UI	4.06	R,R5a	0.901	+/-0.536		pCi/g						
Radium-226		1.21		0.108	+/-0.107		pCi/g						
Radium-228		1.41		0.217	+/-0.164	0.500	pCi/g						
Ruthenium-106	U	0.0506		0.527	+/-0.152	0.800	pCi/g						
Sodium-22	U	-0.0168		0.0749	+/-0.0235	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7988
Sample ID: 246837005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0402	0.0581	+/-0.0181		pCi/g						
Thallium-208		0.558	0.0571	+/-0.0536	0.080	pCi/g						
Thorium-227	U	0.0993	0.550	+/-0.166		pCi/g						
Thorium-231	U	-0.687	0.943	+/-0.297		pCi/g						
Thorium-234		1.75	0.737	+/-0.398	2.00	pCi/g						
Tin-113	U	-0.00464	0.0698	+/-0.0206	0.100	pCi/g						
Uranium-235	U	0.0942	0.294	+/-0.0833	0.500	pCi/g						
Yttrium-88	U	-0.00262	0.0516	+/-0.016	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		340	181	+/-64.2	250	pCi/L		KXK2	02/23/10	1337	953111	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	75.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	76.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7989
Sample ID: 246837006
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 26.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0139		0.0314	+/-0.00532	0.050	pCi/g		CXM2	02/27/10	1636	953337	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00248		0.0203	+/-0.00249	0.050	pCi/g		CXM2	02/27/10	1945	953338	3
Plutonium-239/240	U	0.0137		0.0153	+/-0.00454	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.95		0.0936	+/-0.162	0.100	pCi/g		CXM2	02/27/10	1644	953339	4
Uranium-235/236		0.138		0.0597	+/-0.0277	0.100	pCi/g						
Uranium-238		3.68		0.0639	+/-0.285	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0719		0.315	+/-0.101	0.200	pCi/g		MXR1	02/23/10	1213	952641	5
Bismuth-211	UI	3.54	R,R5a	0.370	+/-0.343		pCi/g						
Bismuth-214		1.17		0.129	+/-0.108	0.200	pCi/g						
Cadmium-109	UI	2.53	R,R5a	1.54	+/-0.629		pCi/g						
Cerium-139	U	-0.0134		0.0552	+/-0.017	0.050	pCi/g						
Cesium-134	U	0.0841		0.102	+/-0.0332	0.100	pCi/g						
Cesium-137		0.225		0.0825	+/-0.0379	0.100	pCi/g						
Cobalt-60	U	-0.0137		0.0762	+/-0.0241	0.100	pCi/g						
Europium-152	U	0.0308		0.189	+/-0.0597	0.200	pCi/g						
Lanthanum-140	U	-0.0849		0.138	+/-0.0483		pCi/g						
Lead-212		1.49		0.094	+/-0.111	0.100	pCi/g						
Lead-214		1.23		0.129	+/-0.124	0.100	pCi/g						
Mercury-203	U	-0.00227		0.0739	+/-0.0217	0.100	pCi/g						
Potassium-40		27.5		0.676	+/-1.62	1.00	pCi/g						
Radium-223	U	-0.60		1.26	+/-0.394		pCi/g						
Radium-224	UI	5.23	R,R5a	1.07	+/-0.825		pCi/g						
Radium-226		1.17		0.129	+/-0.108		pCi/g						
Radium-228		1.36		0.229	+/-0.179	0.500	pCi/g						
Ruthenium-106	U	0.0645		0.624	+/-0.183	0.800	pCi/g						
Sodium-22	U	-0.0353		0.0841	+/-0.0273	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7989
Sample ID: 246837006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	-0.257	0.0649	+/-0.0312		pCi/g						
Thallium-208		0.380	0.0727	+/-0.0459	0.080	pCi/g						
Thorium-227	U	0.0352	0.688	+/-0.199		pCi/g						
Thorium-231	U	-0.60	1.26	+/-0.394		pCi/g						
Thorium-234		6.94	2.48	+/-1.57	2.00	pCi/g						
Tin-113	U	0.0123	0.0862	+/-0.0255	0.100	pCi/g						
Uranium-235	U	0.317	0.425	+/-0.129	0.500	pCi/g						
Yttrium-88	U	0.00262	0.0673	+/-0.0206	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		438	181	+/-68.8	250	pCi/L		KXK2	02/23/10	1514	953111	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	47.5 *	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	94.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	77.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

LMF
3/29/10

Wednesday, February 10, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1747

REQUEST NUMBER: 10-1747

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/12/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246837, 246838

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7992	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7992	1	POLY	H3	Ice	R
RE15-10-7992	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7992	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7991	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7991	1	POLY	H3	Ice	R
RE15-10-7991	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7991	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7990	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7990	1	POLY	H3	Ice	R
RE15-10-7990	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7990	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7987	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7987	1	POLY	H3	Ice	R
RE15-10-7987	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7987	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7988	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7988	1	POLY	H3	Ice	R
RE15-10-7988	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7988	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7989	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7989	1	POLY	H3	Ice	R
RE15-10-7989	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7989	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8085	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8085	1	POLY	SW-846:6850	Ice	W
RE15-10-8085	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:	Date	Time	Received By:	Date	Time

2/10/10 1400 10-1747 Page 2 of

Printed Name	Signature	Printed Name	Signature
		Patricia Dorze-Dent	P.D. Dent 2-11-10 09:20
Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, February 10, 2010

REQUEST NUMBER: 10-1747

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-1747
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/10/2010
TURNAROUND/REPORT DUE: 3/12/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	EPA:906.0	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	

Wednesday, February 10, 2010

REQUEST NUMBER: 10-1747

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	HASL-300:AM-241	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	HASL-300:ISOPU	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	HASL-300:ISOU	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	SW-846:6020	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
		1	RE15-10-8085	W	2/8/2010	

Wednesday, February 10, 2010

REQUEST NUMBER: 10-1747

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
		1	RE15-10-8085	W	2/8/2010	
	SW-846:7470A	1	RE15-10-8085	W	2/8/2010	
	SW-846:7471A	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	SW-846:8321A_MOD	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	SW-846:9012A	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
		1	RE15-10-8085	W	2/8/2010	

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 17, 2010

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

Re: LANL ER Project
Work Orders: 246837 246838
SDG: 10-1747

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 11, 2010, and analyzed for Explosives by LCMSMS, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1747
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 246837 and 246838
SDG: 10-1747

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Standards 622
Raw Data 635
Miscellaneous 940

Metals Analysis **983**
Case Narrative 984
Sample Data Summary 990

Quality Control Summary 992
Standards 1062
Raw Data 1075
Miscellaneous 1549

General Chemistry Analysis 1581
Case Narrative 1582
Sample Data Summary 1587
Quality Control Summary 1595
Instrument QC Data Summary 1598
Cyanide, Total 1600

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Sample Data Summary 1617
Quality Control Summary 1620
Instrument QC Data Summary 1623
Cyanide, Total 1625

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Sample Data Summary 1648
Quality Control Data 1668
Raw Data 1676
Background and Efficiency Data 2192
Standards Data 2291
Runlogs 2326

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 246837 and 246838
SDG # : 10-1747

February 17, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 11, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 8,10-13,15C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987
246837005	RE15-10-7988
246837006	RE15-10-7989
246838001	RE15-10-8085

Case Narrative

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

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

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

for Francis

Valerie Davis
Project Manager

List of current GEL Certifications as of 17 February 2010

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

Chain of Custody and Supporting Documentation

Wednesday, February 10, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1747

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1747

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/12/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246837, 246838

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7992	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7992	1	POLY	H3	Ice	R
RE15-10-7992	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7992	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7991	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7991	1	POLY	H3	Ice	R
RE15-10-7991	1	POLY	Met+U+CLO4+CN	Ice	R
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RE15-10-7990	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7990	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7987	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7987	1	POLY	H3	Ice	R
RE15-10-7987	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7987	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7988	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7988	1	POLY	H3	Ice	R
RE15-10-7988	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7988	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7989	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7989	1	POLY	H3	Ice	R
RE15-10-7989	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7989	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8085	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8085	1	POLY	SW-846:6850	Ice	W
RE15-10-8085	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:	Date	Time	Received By:	Date	Time

Printed Name	Signature	Printed Name	Signature
	2/10/10 1400		
Printed Name	Signature	Printed Name	Signature
		Patricia Dozier-Dent	P.D.-Dent 2-11-10 09:20
Printed Name	Signature	Printed Name	Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name	Signature

Wednesday, February 10, 2010

REQUEST NUMBER: 10-1747

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1747

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/10/2010

TURNAROUND/REPORT DUE: 3/12/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	EPA:906.0	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	

Wednesday, February 10, 2010

REQUEST NUMBER: 10-1747

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	HASL-300:AM-241	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	HASL-300:ISOPU	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	HASL-300:ISOU	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	SW-846:6020	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
		1	RE15-10-9995	W	2/8/2010	

Wednesday, February 10, 2010

REQUEST NUMBER: 10-1747

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
		1	RE15-10-8085	W	2/8/2010	
	SW-846:7470A	1	RE15-10-8085	W	2/8/2010	
	SW-846:7471A	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	SW-846:8321A_MOD	1	RE15-10-7987	R	2/8/2010	
		1	RE15-10-7988	R	2/8/2010	
		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
	SW-846:9012A	1	RE15-10-7987	R	2/8/2010	
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		1	RE15-10-7989	R	2/8/2010	
		1	RE15-10-7990	R	2/8/2010	
		1	RE15-10-7991	R	2/8/2010	
		1	RE15-10-7992	R	2/8/2010	
		1	RE15-10-8085	W	2/8/2010	

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1747**
Received By: Patricia Dover-Dent	**Date Received: February 11, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **40 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **1-6** **8, 10-13,15**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 9959 1C	**7209 7849 9948 2C**	**7209 7849 9890 10C**
7209 7850 0095 1C	**7209 7850 0030 2C**	**7209 7850 0051 8C**
7209 7850 0007 1C	**7209 7849 9992 4C**	**7209 7849 9878 12C**
7209 7850 0084 1C	**7209 7849 9926 3C**	**7209 7849 9867 11C**
7209 7849 9981 2C	**7209 7850 0073 6C**	**7209 7849 9904 15C**
7209 7849 9937 1C	**7209 7850 0040 5C**	**7209 7849 9889 13C**
7209 7849 9915 2C	**7209 7849 9970 6C**	
7209 7850 0062 2C	**7209 7849 9960 6C**	

PM (or PMA) review: Initials MS Date 2/12/10

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
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TRK# 0201 7209 7849 9959

THU - 11FEB A1
PRIORITY OVERNIGHT

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1# 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
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TA00 BLDG 1237 DPU 03

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Mstr# 7209 7849 9992 0201

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Mstr# 7209 7849 9970 0201

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150148-434 NAIT V3.09-09

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ACTWGT: 49.0 LB MAN
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PRIORITY OVERNIGH

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150148-434 NAIT V3.09-09

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SHIP DATE: 10FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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1 of 2
TRK# 0201 7209 7849 9915
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ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2449

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Mstr# 7209 7850 0051 0201

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PRIORITY OVERNIGH

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UNITED STATES US

SHIP DATE: 10FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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MPS# 0263 7209 7849 9948
Mstr# 7209 7849 9937 0201

THU - 11FEB A1
PRIORITY OVERNIGHT

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156148-434 NAIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
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UNITED STATES US

SHIP DATE: 10FEB10
ACTWGT: 51.0 LB MAN
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1 of 2
TRK# 0201 7209 7850 0030
MASTER ##

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ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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TRK# 0201 7209 7849 9992
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ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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Mstr# 7209 7849 9915 0201

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ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

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1 of 2

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156148-434 NAIT V3 06-09

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THU - 11FEB A1
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156148-434 NAIT V3 09-08

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SHIP DATE: 10FEB10
ACTWGT: 43.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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UNITED STATES US

SHIP DATE: 10FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

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UNITED STATES US

SHIP DATE: 10FEB10
ACTWGT: 73.0 LB MAN
CAD: 0014176/CAFE2449

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1 of 2
TRK# 0201 7209 7849 9890
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1 of 2
TRK# 0201 7209 7850 0051
HH MASTER HH

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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 10FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449

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1 of 2
TRK# 0201 7209 7849 9878
MASTER

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JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 10FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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Mstr# 7209 7849 9890 0201

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UNITED STATES US

SHIP DATE: 10FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2
MPS# 0263 7209 7849 9867
Mstr# 7209 7849 9856 0201

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ACTWGT: 62.0 LB MAN
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2940

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

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

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1747

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	952999
Prep Batch Number:	952998

Sample Analysis

Sample ID	**Client ID**
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987
246837005	RE15-10-7988
246837006	RE15-10-7989
1202042690	Interference Check Sample (ICS)
1202042686	Method Blank (MB)
1202042687	Laboratory Control Sample (LCS)
1202042688	246735002(RE16-10-3883) Matrix Spike (MS)
1202042689	246735002(RE16-10-3883) Matrix Spike Duplicate (MSD)

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

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Preparation/Analytical Method Verification

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

Calibration Information

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

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

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

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

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

Quality Control (QC) Information

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

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 246735002 (RE16-10-3883) from SDG 10-1743 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 246837006 (RE15-10-7989) required re-analysis due to the bracketing CRI not being analyzed. Overnight the computer lost communication with the LC causing the sequence to terminate. The re-analysis passed acceptance criteria and is reported.

Miscellaneous Information

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

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

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

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

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

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

System Configuration

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

Chromatographic Columns

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

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Herbert K Maier **Date:** 03/03/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7992

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837001

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 90.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.55	2.2	0.550	ug/kg	U	1	26-FEB-10 01:46	per0225061a
	Perchlorate Isotope Ratio						1	26-FEB-10 01:46	per0225061a
14797-73-0	Perchlorate-101	.55	2.2	0.550	ug/kg	U	1	26-FEB-10 01:46	per0225061a
	Perchlorate-O(18)			5.40	ug/kg		1	26-FEB-10 01:46	per0225061a

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

*Concentration =

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

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7991

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837002

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.704	2.82	0.704	ug/kg	U	1	26-FEB-10 01:53	per0225062a
	Perchlorate Isotope Ratio						1	26-FEB-10 01:53	per0225062a
14797-73-0	Perchlorate-101	.704	2.82	0.704	ug/kg	U	1	26-FEB-10 01:53	per0225062a
	Perchlorate-O(18)			7.03	ug/kg		1	26-FEB-10 01:53	per0225062a

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

*Concentration =

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

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7990

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837003

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 92

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	26-FEB-10 02:01	per0225063a
	Perchlorate Isotope Ratio						1	26-FEB-10 02:01	per0225063a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	26-FEB-10 02:01	per0225063a
	Perchlorate-O(18)			5.49	ug/kg		1	26-FEB-10 02:01	per0225063a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7987

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837004

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 66

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.762	3.05	0.762	ug/kg	U	1	26-FEB-10 02:08	per0225064a
	Perchlorate Isotope Ratio						1	26-FEB-10 02:08	per0225064a
14797-73-0	Perchlorate-101	.762	3.05	0.762	ug/kg	U	1	26-FEB-10 02:08	per0225064a
	Perchlorate-O(18)			7.89	ug/kg		1	26-FEB-10 02:08	per0225064a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7988

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837005

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	26-FEB-10 02:16	per0225065a
	Perchlorate Isotope Ratio						1	26-FEB-10 02:16	per0225065a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	26-FEB-10 02:16	per0225065a
	Perchlorate-O(18)			5.87	ug/kg		1	26-FEB-10 02:16	per0225065a

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

*Concentration =

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7989

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837006

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.681	2.72	0.681	ug/kg	U	1	26-FEB-10 15:45	per0226012a
	Perchlorate Isotope Ratio						1	26-FEB-10 15:45	per0226012a
14797-73-0	Perchlorate-101	.681	2.72	0.681	ug/kg	U	1	26-FEB-10 15:45	per0226012a
	Perchlorate-O(18)			6.66	ug/kg		1	26-FEB-10 15:45	per0226012a

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

*Concentration =

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

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QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1747

Extract Batch Code: 952998

Date Filtered: 23–FEB–10

Matrix: SOIL

Sample ID: 1202042687

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.21	ug/kg	110		70 – 130
Perchlorate Isotope Ratio		3.17				–
Perchlorate–101	2.00	2.17	ug/kg	109		70 – 130
Perchlorate–O(18)		5.12	ug/kg			–

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

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1747

Extract Batch Code: 952998

Date Filtered: 23–FEB–10

Matrix: SOIL

Sample ID: 1202042690

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.32	ug/kg	116		70 – 130
Perchlorate Isotope Ratio		3.1				
Perchlorate–101	2.00	2.33	ug/kg	117		70 – 130
Perchlorate–O(18)		5.3	ug/kg			

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

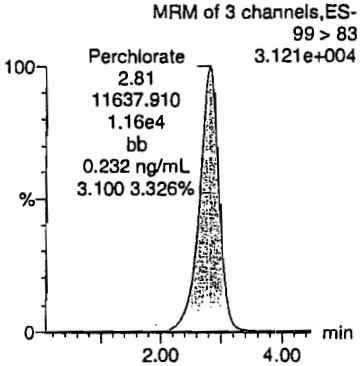
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225048a
Date: 26-Feb-2010
Time: 00:07:57
ID: 1202042690
Vial: 2:1,C

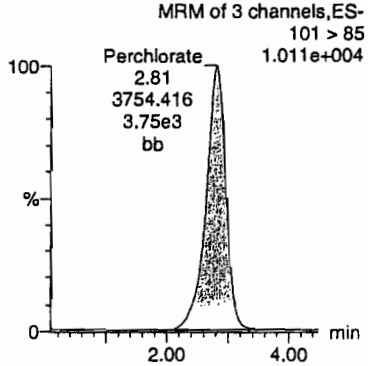
|LANL|952999|SOLID|ICS|1|

CW 02-25-10

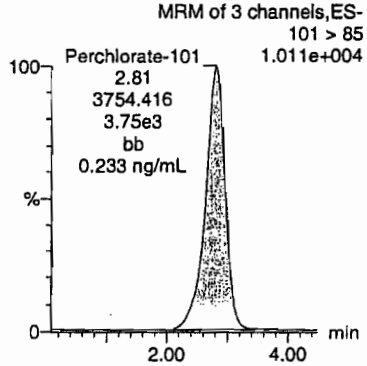
Perchlorate



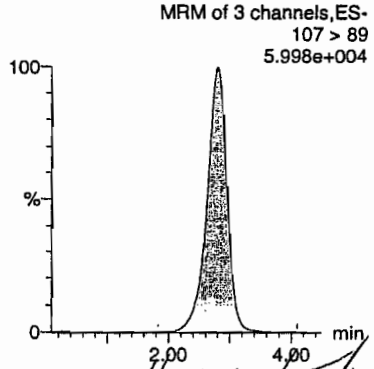
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202042690	Perchlorate	99 > 83	2.81	11637.910	11637.910	bb			0.2321	116.06	16.06	3773.0...	3.10
1202042690	Perchlorate-101	101 > 85	2.81	3754.416	3754.416	bb			0.2334	116.68	16.68	523.376	
1202042690	Perchlorate-O(18)	107 > 89	2.79	22387.570	22387.570	bb			0.5295	105.90	5.90	14529....	

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

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1747

Extract Batch Code: 952998

Date Extracted: 23–FEB–10

GEL MS/PS ID: 1202042688

Client ID: RE16–10–3883

GEL MSD/PSD ID: 1202042689

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.45	0.124	ug/kg	2.83	110	2.79	109	1.53	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.06		3.19		0		–
Perchlorate–101	2.45	0.104	ug/kg	2.88	113	2.73	107	5.57	30	75 – 125
Perchlorate–O(18)	0	6.35	ug/kg	6.43		6.28		2.4		–

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

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1747

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	25–FEB–10	per0225001a	IPB001
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225001a	IPB001
Perchlorate	0.00	0	NA	25–FEB–10	per0225002a	IPB001
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225002a	IPB001
Perchlorate	0.00	0	NA	26–FEB–10	per0226001a	IPB001
Perchlorate–101	0.00	0	NA	26–FEB–10	per0226001a	IPB001
Perchlorate	0.00	0	NA	26–FEB–10	per0226002a	IPB001
Perchlorate–101	0.00	0	NA	26–FEB–10	per0226002a	IPB001

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

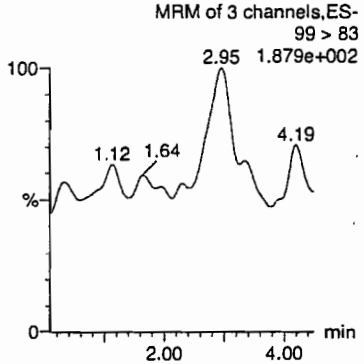
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022510a.mdb 26 Feb 2010 09:10:03
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022510a.cdb 26 Feb 2010 09:11:04

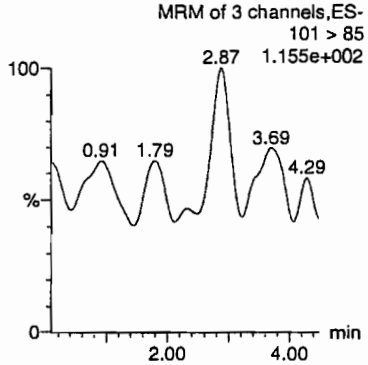
Name: per0225001a
Date: 25-Feb-2010
Time: 18:13:03
ID: IPB001
Vial: 1:1,A

02-26-10

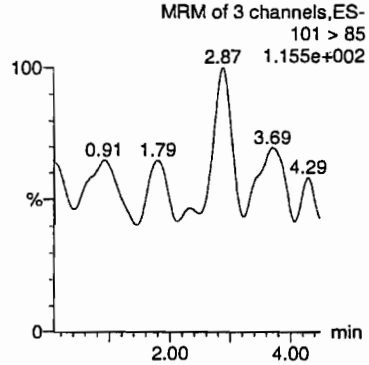
Perchlorate



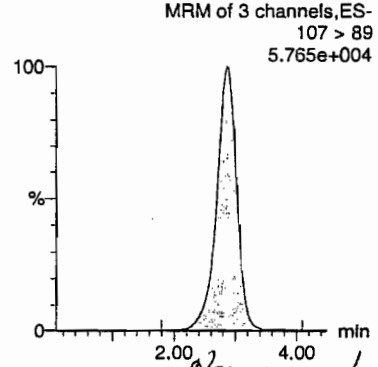
Perchlorate



Perchlorate-101



Perchlorate-O(18)



AMC 02/26/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.86	22049.646	22049.646	bb			0.5215	104.30	4.30	3848.2...	

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

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

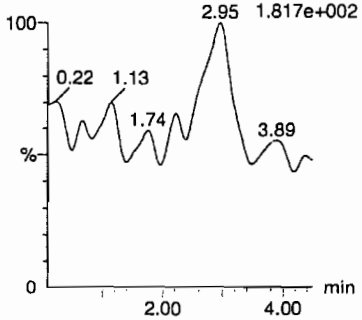
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

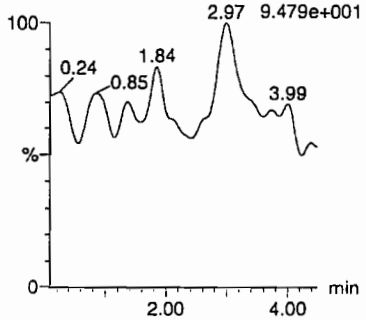
Name: per0225002a
Date: 25-Feb-2010
Time: 18:20:49
ID: IPB001
Vial: 1:1,A

cmj 02-26-10

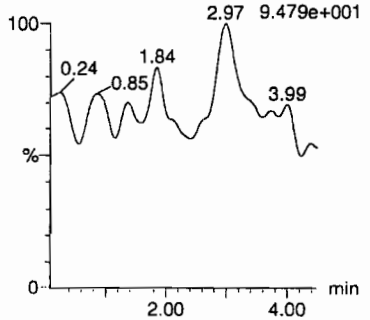
Perchlorate



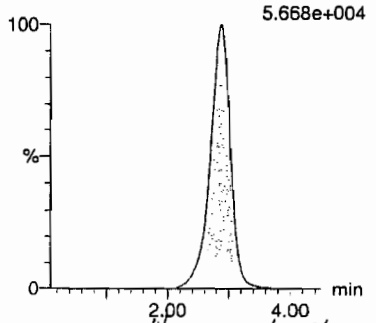
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/26/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.86	21834.596	21834.596	bb			0.5164	103.29	3.29	4979.0...	

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

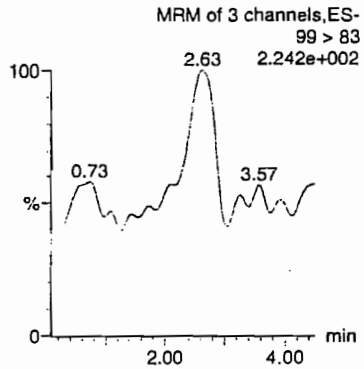
Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022610a.mdb 27 Feb 2010 11:35:41
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022610a.cdb 27 Feb 2010 11:36:46

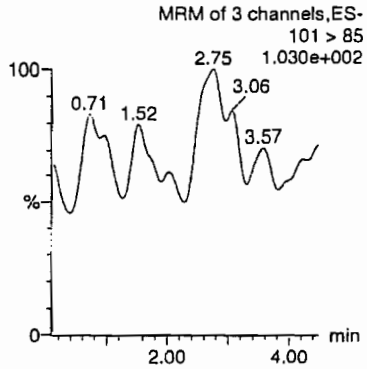
Name: per0226001a
Date: 26-Feb-2010
Time: 14:22:44
ID: IPB001
Vial: 1:1,A

02-27-10

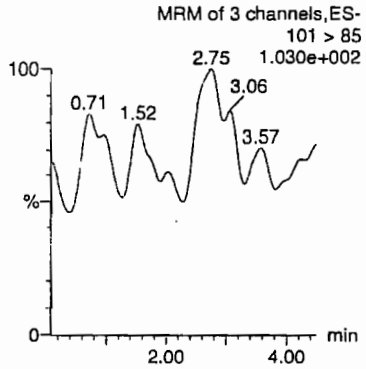
Perchlorate



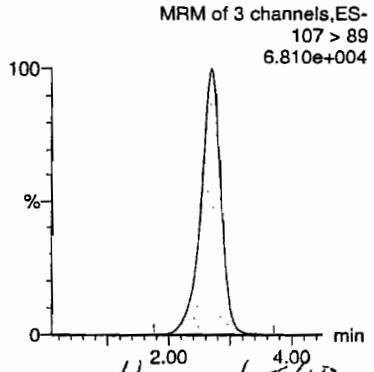
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HJM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.70	25656.617	25656.617	bb			0.5417	108.35	8.35	8398.2...	

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

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

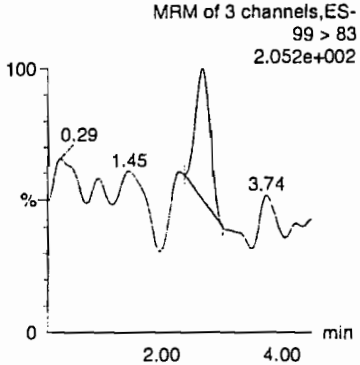
Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

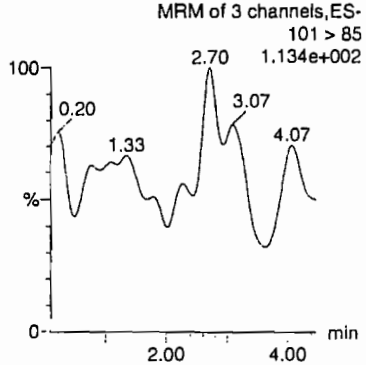
Name: per0226002a
Date: 26-Feb-2010
Time: 14:30:16
ID: IPB001
Vial: 1:1,A

CWW 02-27-10

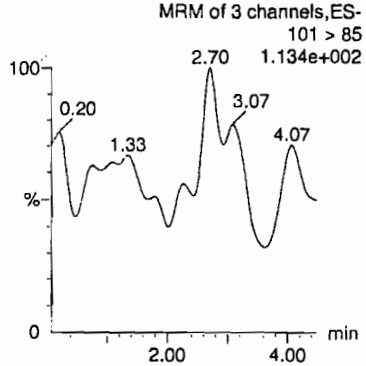
Perchlorate



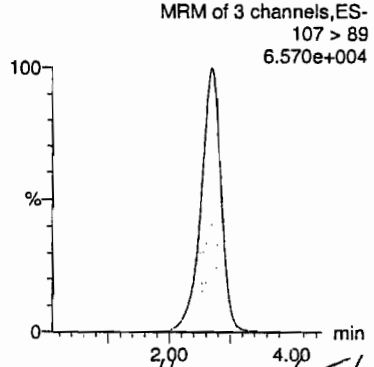
Perchlorate



Perchlorate-101



Perchlorate-O(18)



CH 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	2.68	29.927	29.927	bb			0.0006			14.731	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.69	24881.035	24881.035	bb			0.5254	105.07	5.07	8017.4...	

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

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1747

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	25–FEB–10	per0225008a	IPB002
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225008a	IPB002
Perchlorate	0.00	0	NA	25–FEB–10	per0225010a	IPB003
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225010a	IPB003
Perchlorate	0.00	0	NA	25–FEB–10	per0225022a	IPB004
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225022a	IPB004
Perchlorate	0.00	0	NA	25–FEB–10	per0225033a	IPB005
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225033a	IPB005
Perchlorate	0.00	0	NA	25–FEB–10	per0225044a	IPB006
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225044a	IPB006
Perchlorate	0.00	0	NA	26–FEB–10	per0225056a	IPB007
Perchlorate–101	0.00	0	NA	26–FEB–10	per0225056a	IPB007
Perchlorate	0.00	0	NA	26–FEB–10	per0225067a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	26-FEB-10	per0225067a	IPB008
Perchlorate	0.00	0	NA	26-FEB-10	per0226008a	IPB002
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226008a	IPB002
Perchlorate	0.00	0	NA	26-FEB-10	per0226010a	IPB003
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226010a	IPB003
Perchlorate	0.00	0	NA	26-FEB-10	per0226020a	IPB004
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226020a	IPB004

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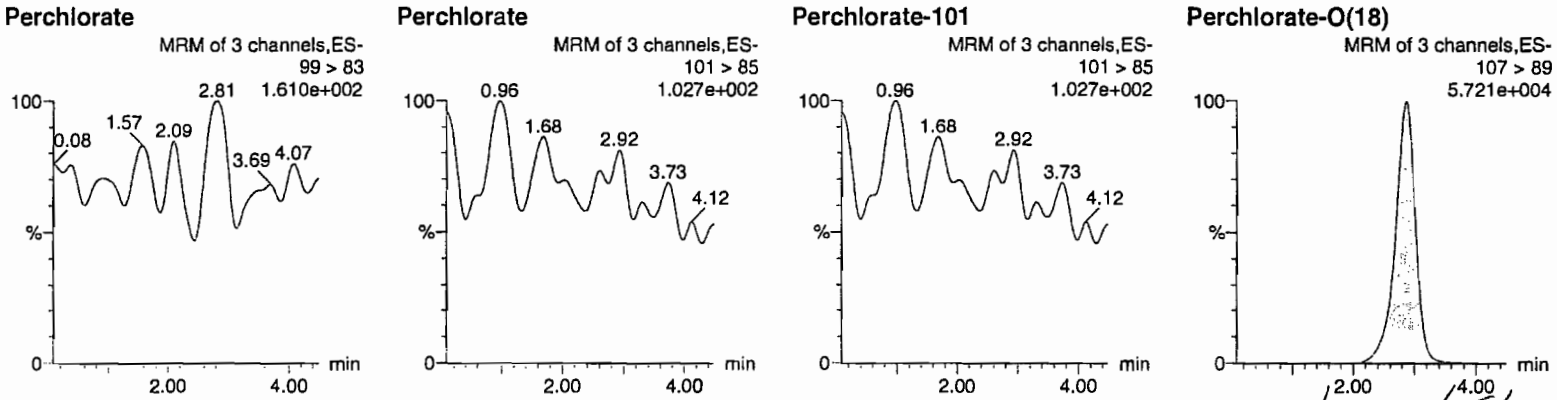
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225008a
Date: 25-Feb-2010
Time: 19:05:59
ID: IPB002
Vial: 1:1,A

CW 02-26-10



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	2.86	21745.854	21745.854	bb			0.5143	102.87	2.87	32982....	

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

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

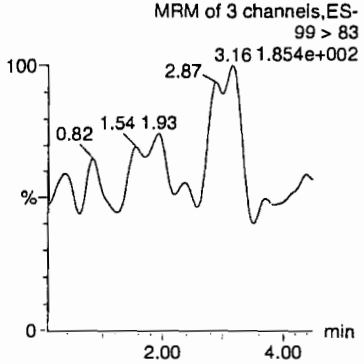
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

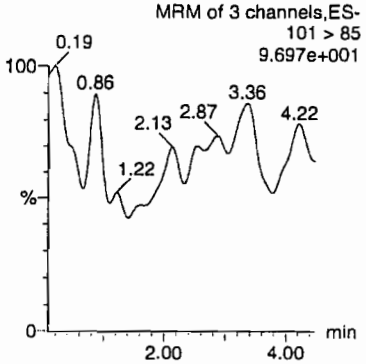
Name: per0225010a
Date: 25-Feb-2010
Time: 19:21:04
ID: IPB003
Vial: 1:1,A

[illegible] 02-26-10

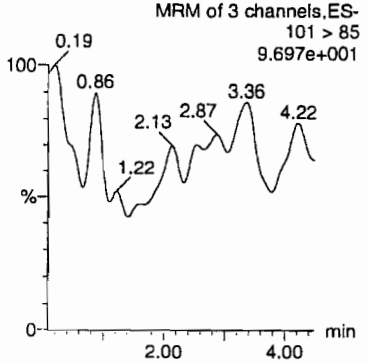
Perchlorate



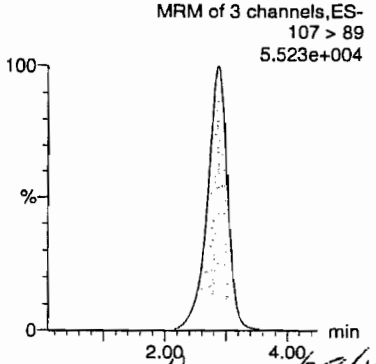
Perchlorate



Perchlorate-101



Perchlorate-O(18)



[illegible] 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	2.86	21138.484	21138.484	bb			0.5000	99.99	-0.01	4510.9...	

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

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

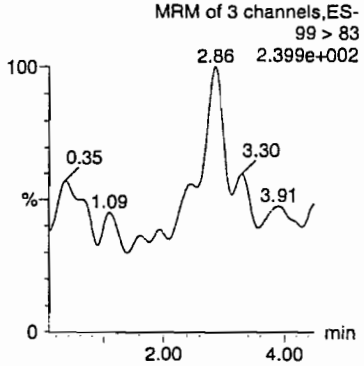
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

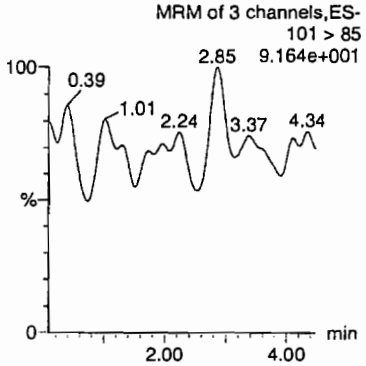
Name: per0225022a
Date: 25-Feb-2010
Time: 20:51:35
ID: IPB004
Vial: 1:1,A

02-26-10

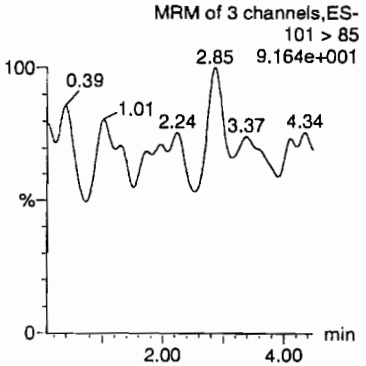
Perchlorate



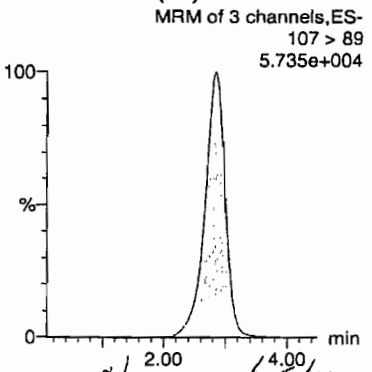
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.84	21807.609	21807.609	bb			0.5158	103.16	3.16	3722.7...	

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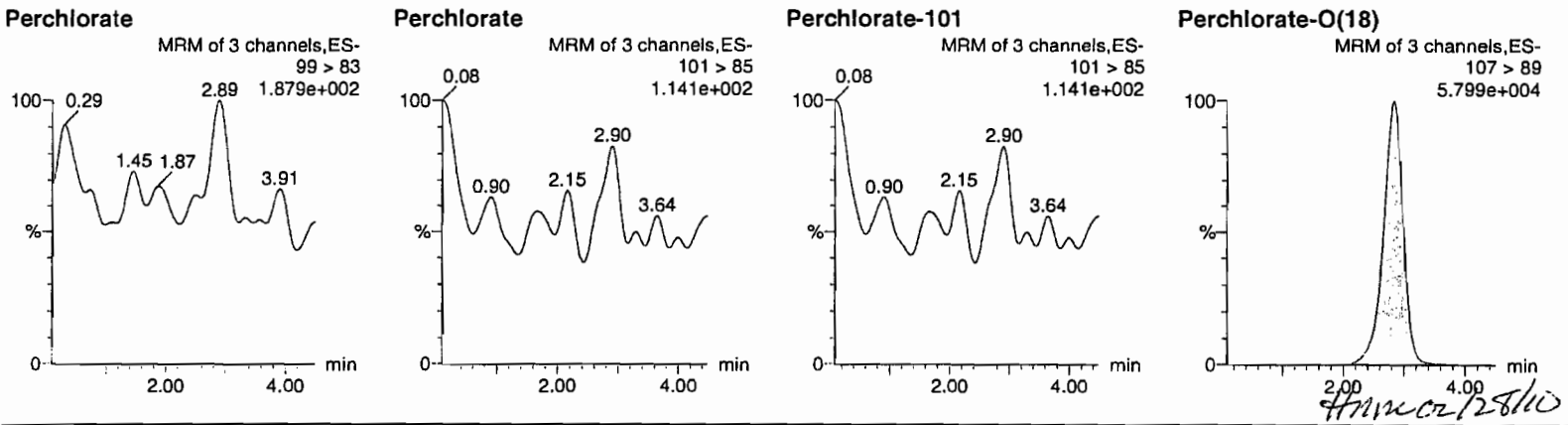
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225033a
Date: 25-Feb-2010
Time: 22:14:33
ID: IPB005
Vial: 1:1,A

CWW
02-26-10



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	2.82	21791.963	21791.963	bb			0.5154	103.08	3.08	22188....	

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

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

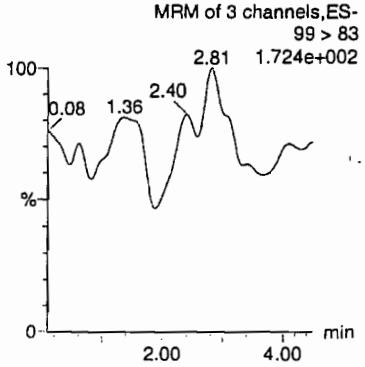
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

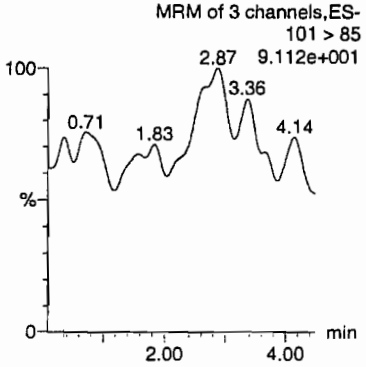
Name: per0225044a
Date: 25-Feb-2010
Time: 23:37:35
ID: IPB006
Vial: 1:1,A

02-26-10

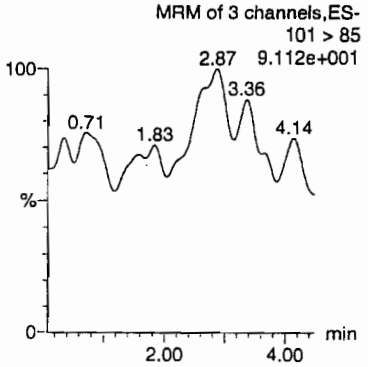
Perchlorate



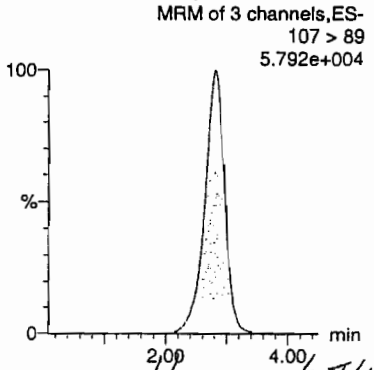
Perchlorate



Perchlorate-101



Perchlorate-O(18)



02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	2.81	22167.750	22167.750	bb			0.5243	104.86	4.86	4261.7...	

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

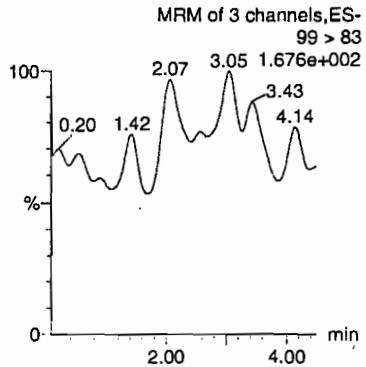
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

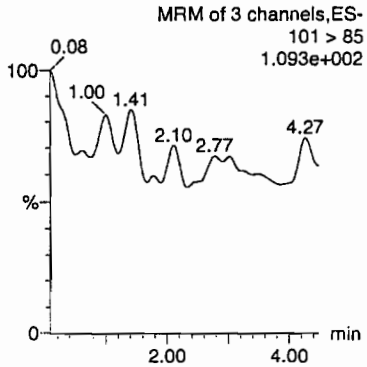
Name: per0225056a
Date: 26-Feb-2010
Time: 01:08:27
ID: IPB007
Vial: 1:1,A

Cwj 02-26-10

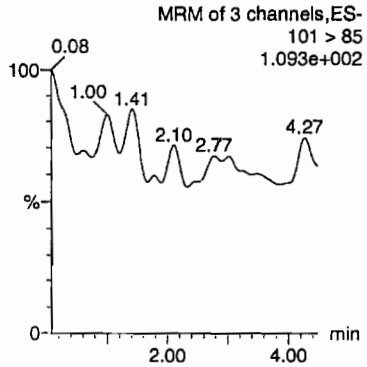
Perchlorate



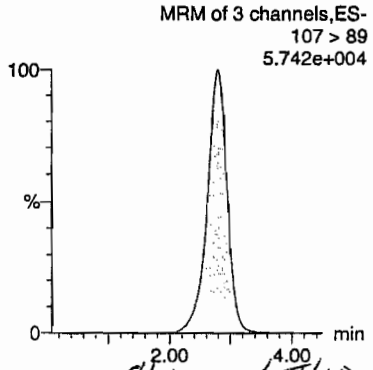
Perchlorate



Perchlorate-101



Perchlorate-O(18)



AMM 02/27/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	2.79	21755.625	21755.625	bb			0.5146	102.91	2.91	24705....	

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

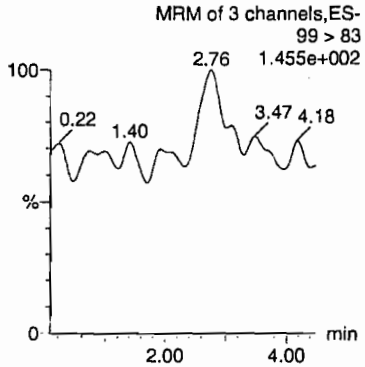
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

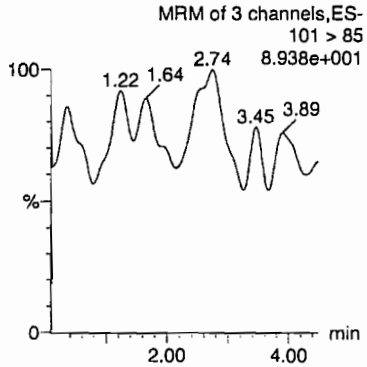
Name: per0225067a
Date: 26-Feb-2010
Time: 02:31:43
ID: IPB008
Vial: 1:1,A

CWW 02-26-10

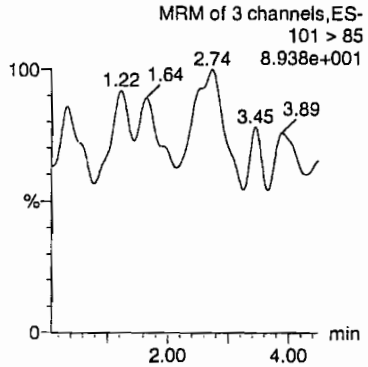
Perchlorate



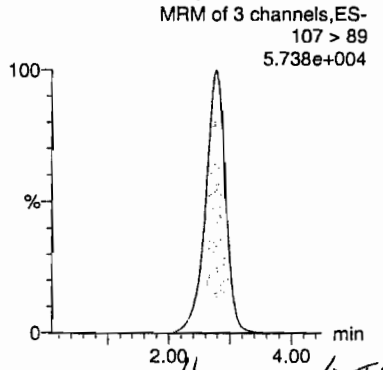
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	2.77	21564.875	21564.875	bb			0.5100	102.01	2.01	919.043	

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

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

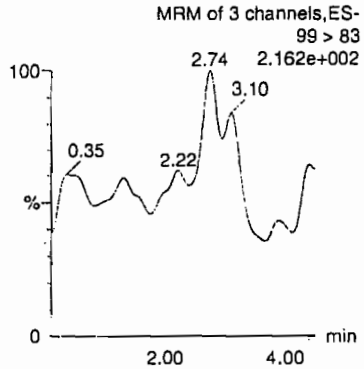
Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

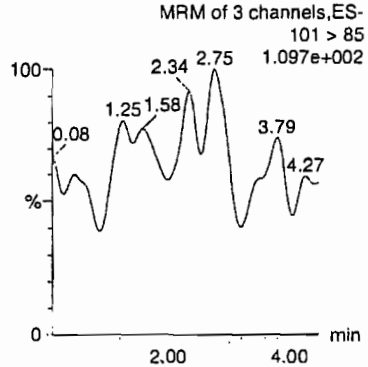
Name: per0226008a
Date: 26-Feb-2010
Time: 15:15:36
ID: IPB002
Vial: 1:1,A

02-27-10

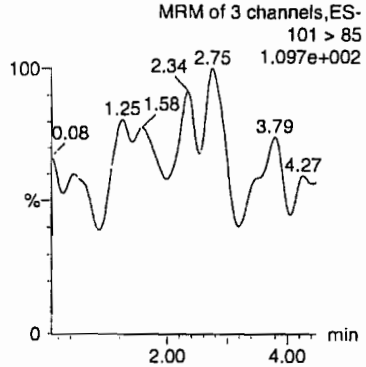
Perchlorate



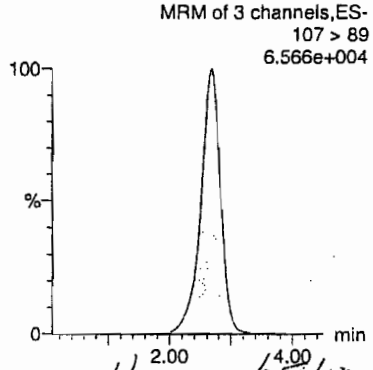
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmmcoz/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	2.69	24805.863	24805.863	bb			0.5238	104.75	4.75	14221....	

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

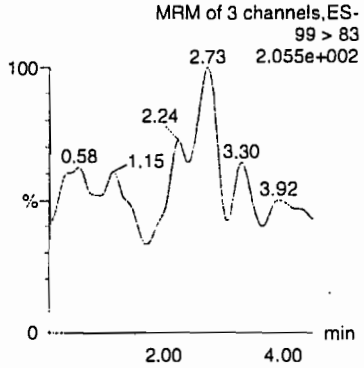
Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

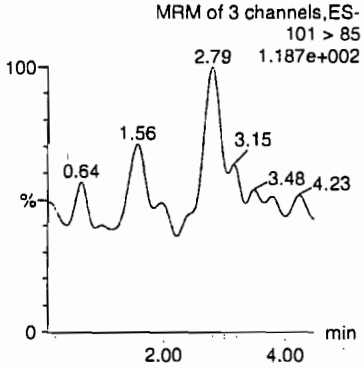
Name: per0226010a
Date: 26-Feb-2010
Time: 15:30:41
ID: IPB003
Vial: 1:1,A

CWO
02-27-10

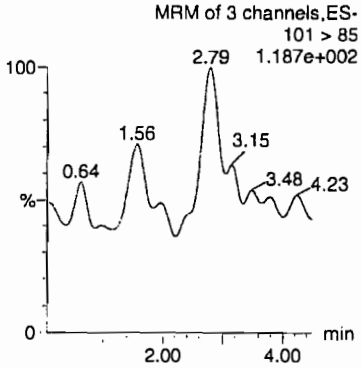
Perchlorate



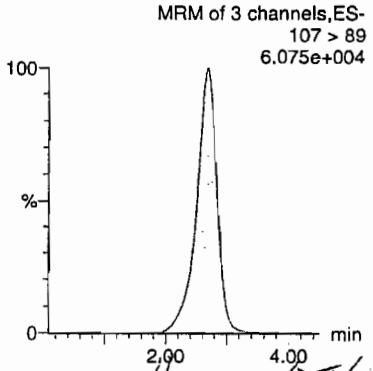
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM-02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	2.69	23705.783	23705.783	bb			0.5005	100.11	0.11	4190.1...	

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The GEL Group, LLC Analyst: Charlers W. Wilson

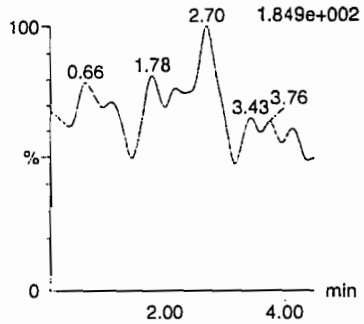
Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

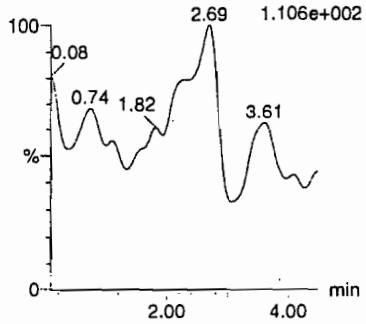
Name: per0226020a
Date: 26-Feb-2010
Time: 16:46:04
ID: IPB004
Vial: 1:1,A

CWJ
02-27-10

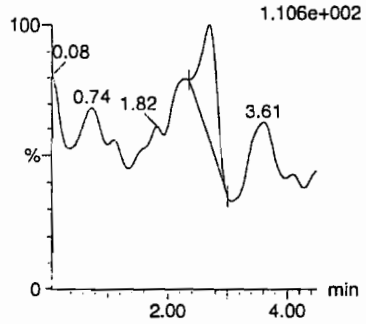
Perchlorate



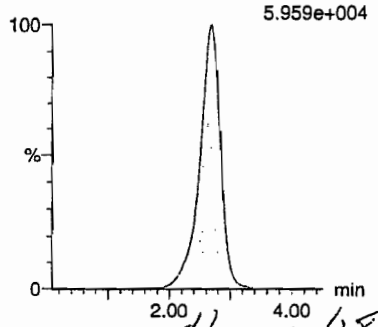
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85	2.69	15.220	15.220	bb			0.0009			9.775	
IPB004	Perchlorate-O(18)	107 > 89	2.68	23481.873	23481.873	bb			0.4958	99.16	-0.84	3900.1...	

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Nairb.ref

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

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

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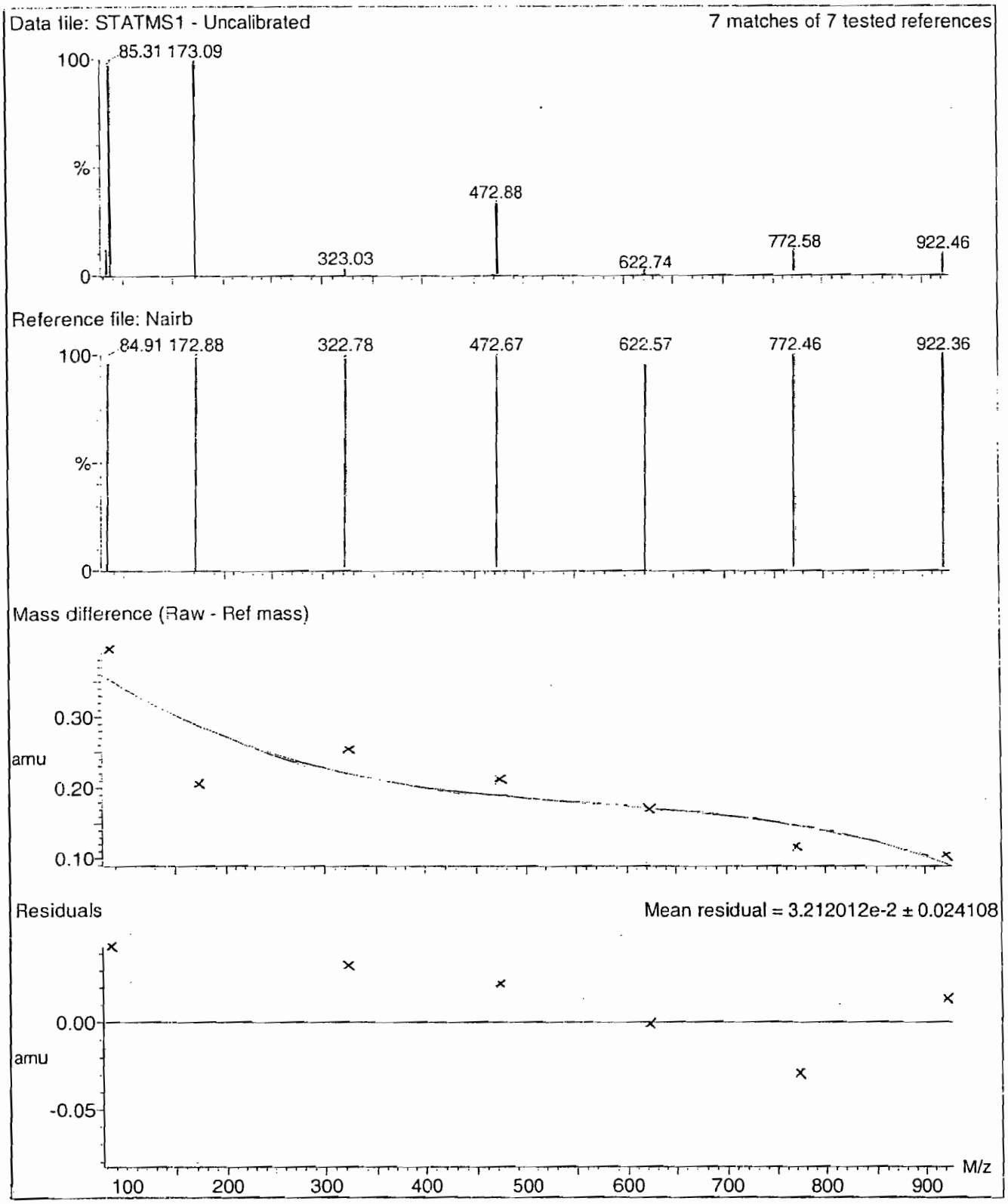
QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08



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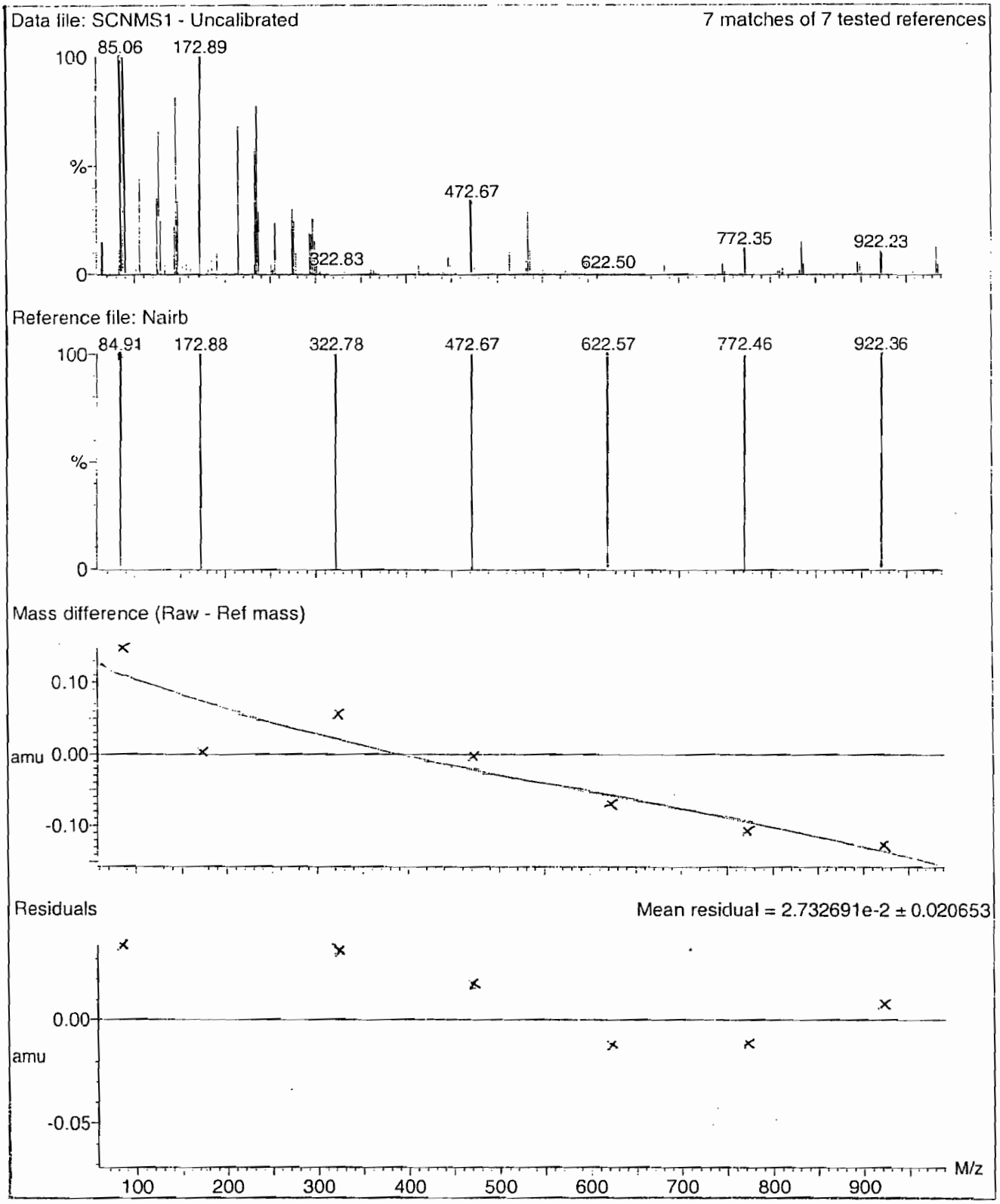
Calibration Report - MS1 Scanning

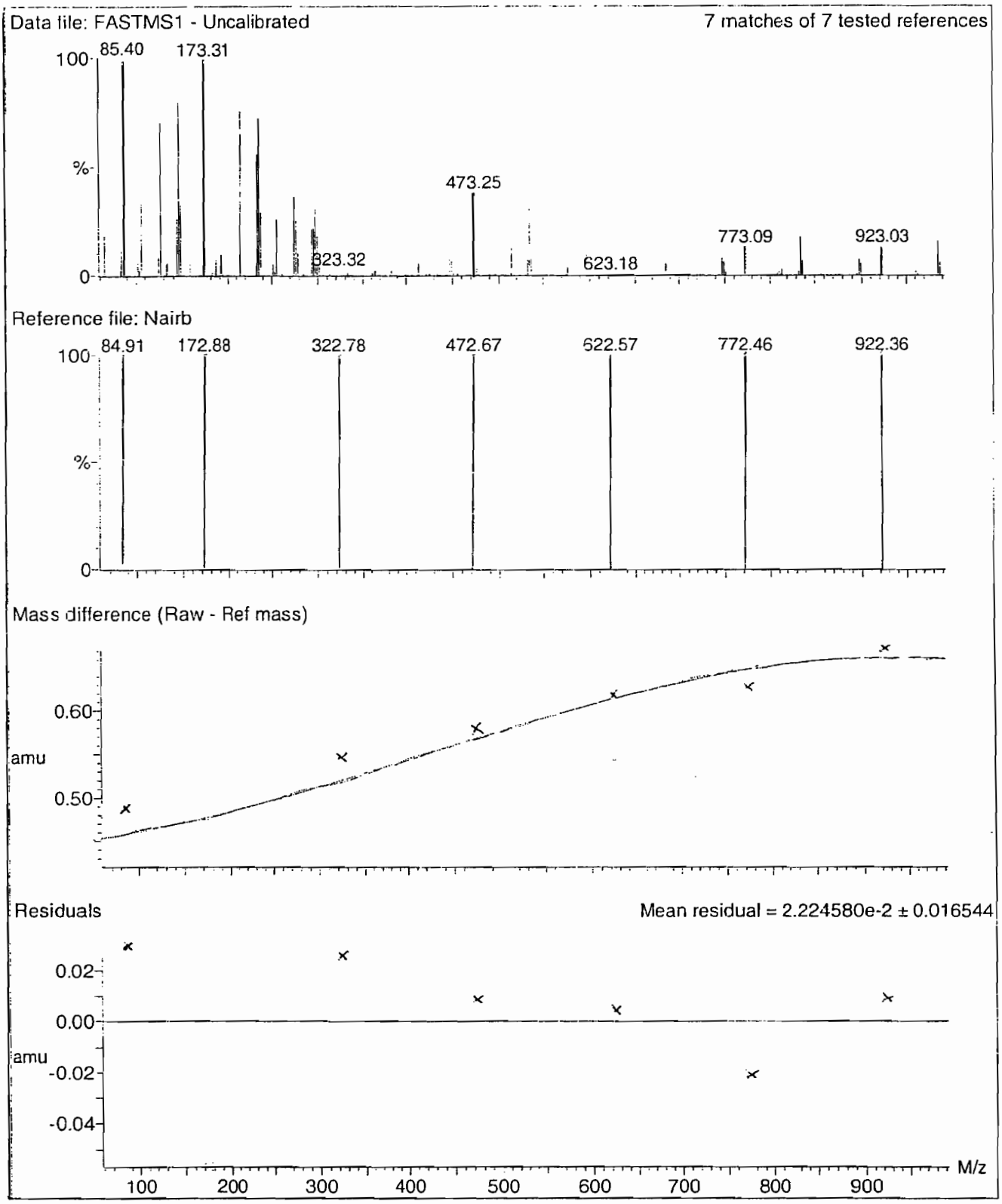
Printed: Tue Jan 08 12:20:09 2008



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

Calibration Report - MS1 Scan Speed Compensation

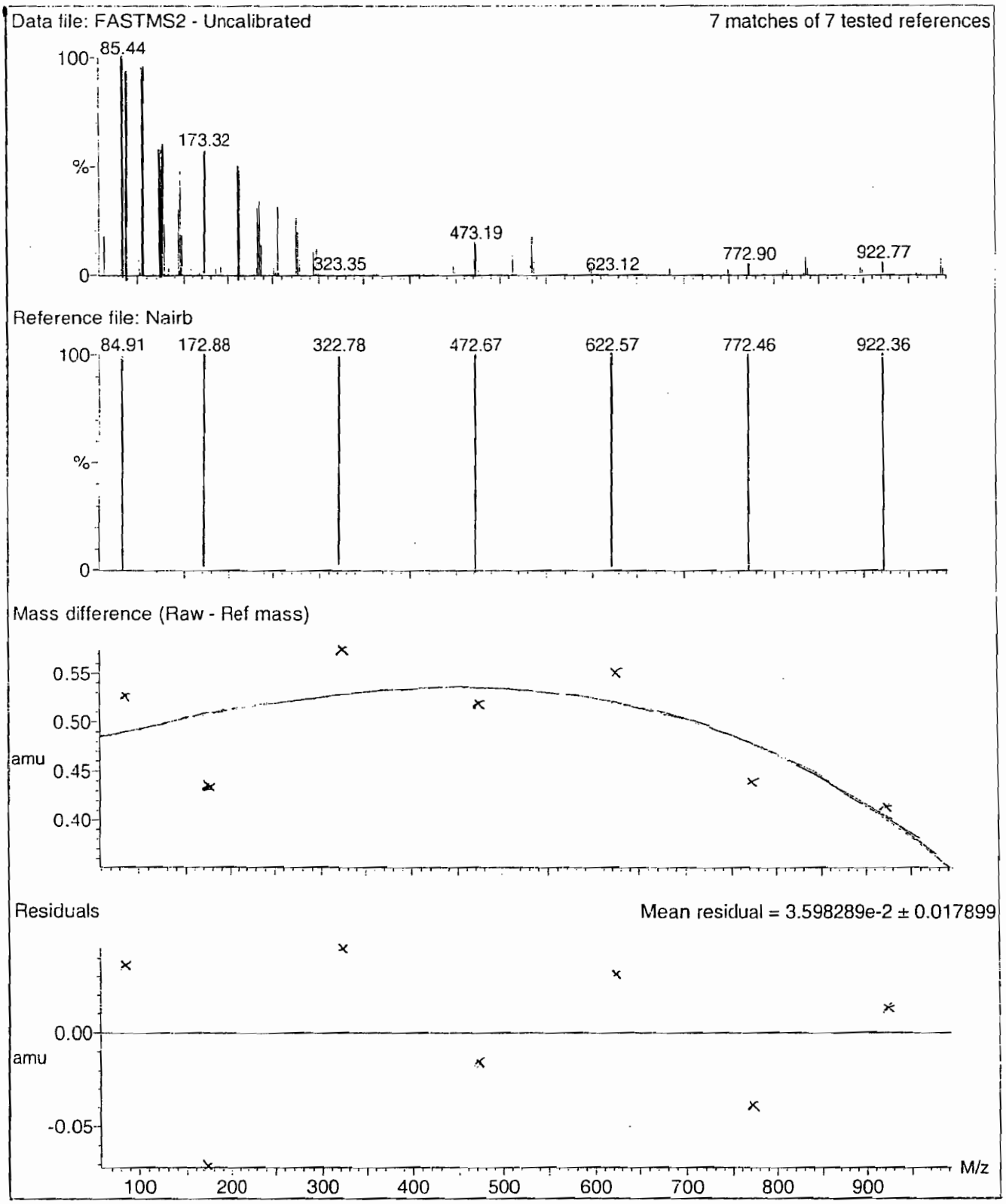
Printed: Tue Jan 08 12:21:04 2008



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

Calibration Report - MS2 Scan Speed Compensation

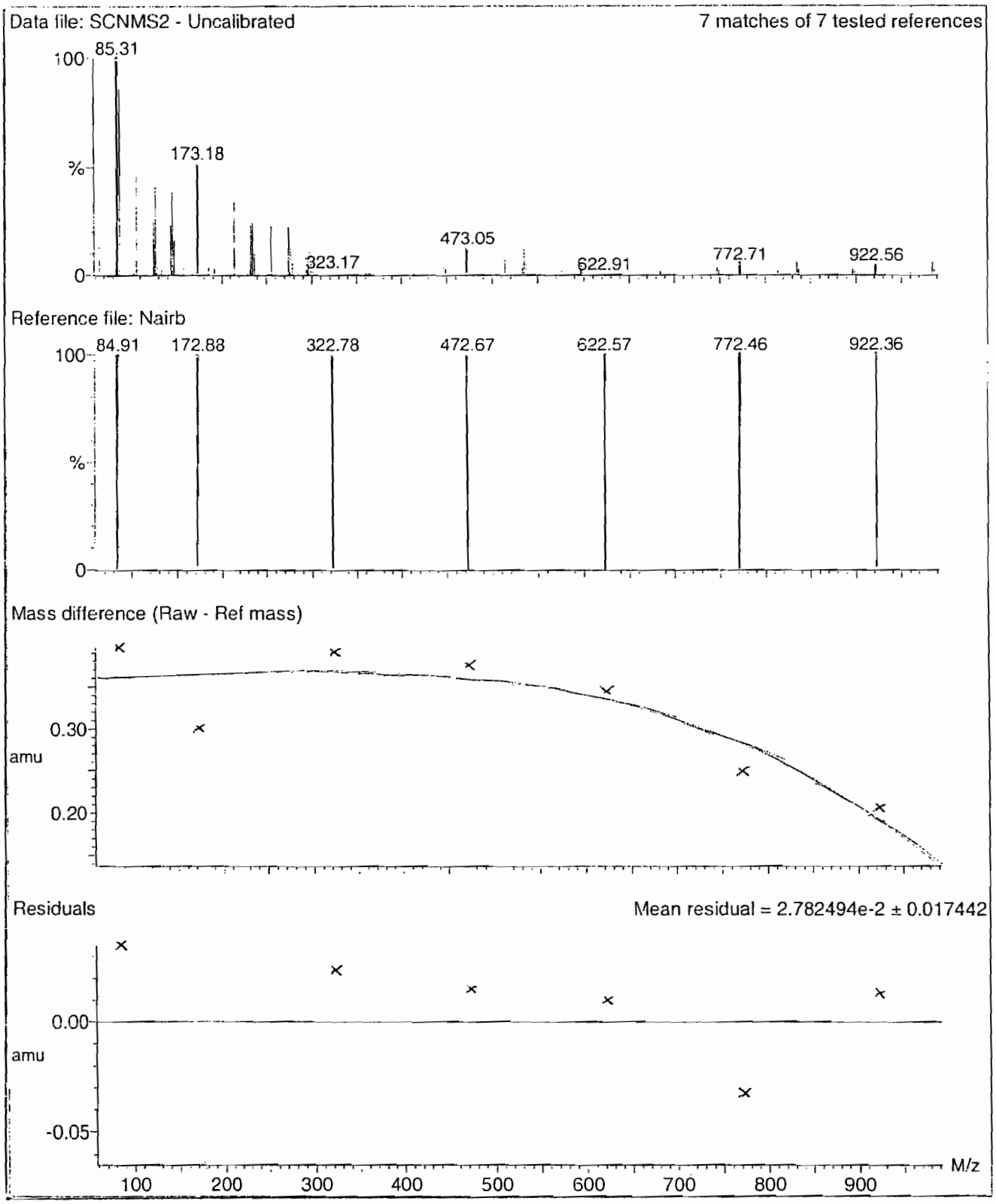
Printed: Tue Jan 08 12:23:51 2008



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

Calibration Report - MS2 Scanning

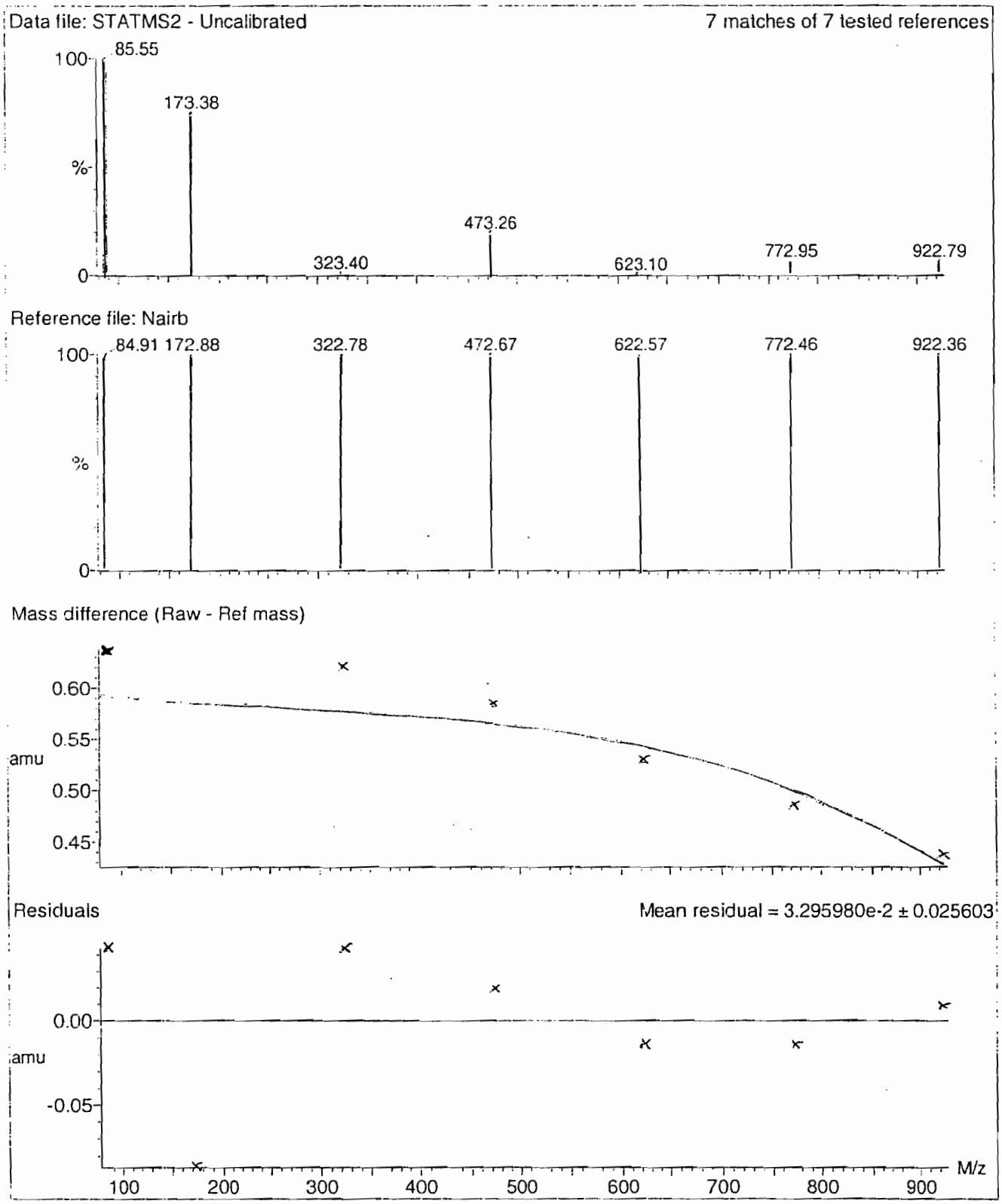
Printed: Tue Jan 08 12:22:56 2008



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

Calibration Report - MS2 Static

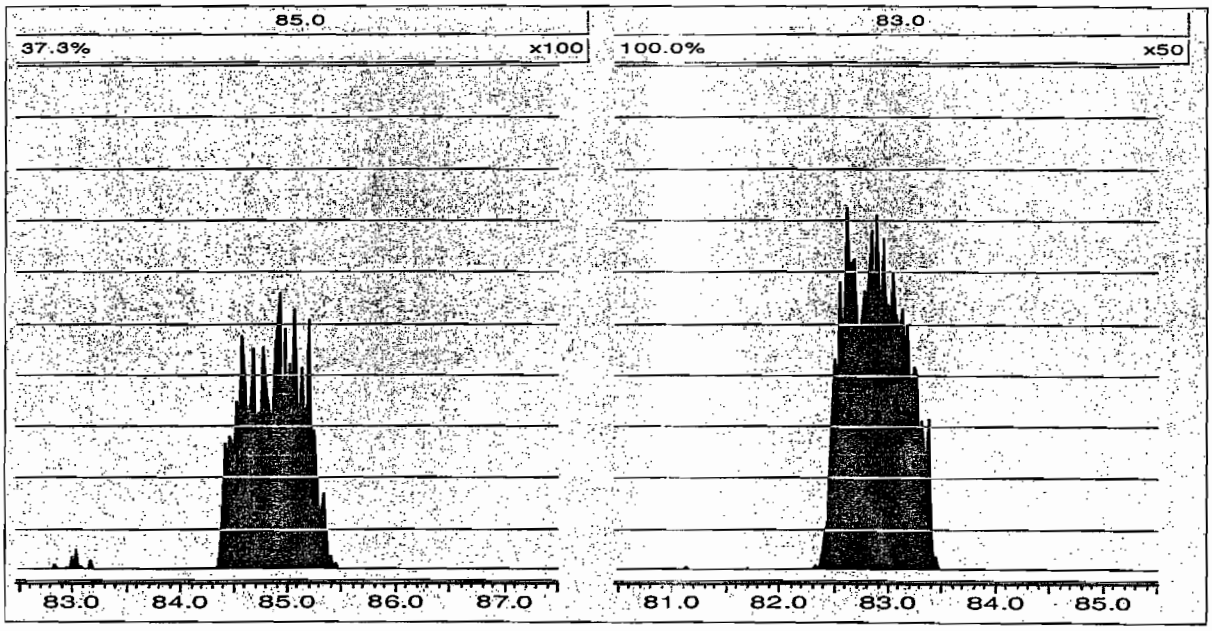
Printed: Tue Jan 08 12:21:59 2008



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

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

Printed: Thursday, February 25, 2010 13:11:01 Eastern Standard Time



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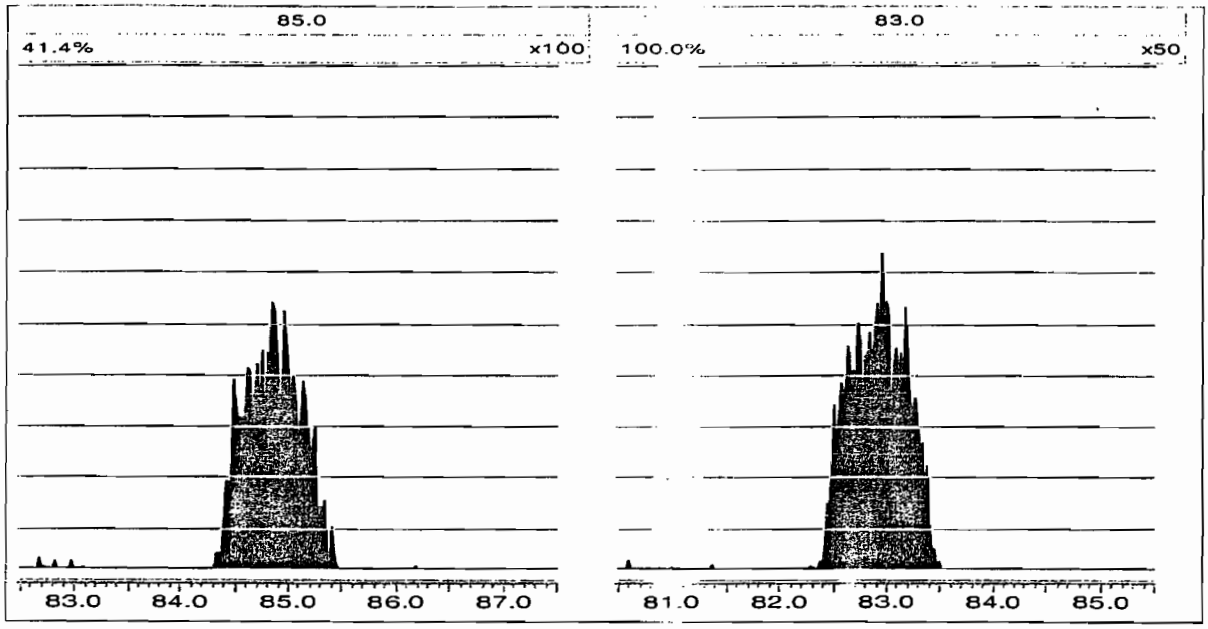
File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Friday, February 26, 2010 09:58:57 Eastern Standard Time



Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1747

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0225006a**	**25-FEB-10**	**20699.3**				
Lower Area Limit			**10349.65**				
Upper Area Limit			**41398.6**				
1202042686	per0225046a	25-FEB-10 23:52	20720.5	2.81	2.81203	1.001	
1202042687	per0225047a	26-FEB-10 00:00	21649.5	2.81	2.82447	1.005	
1202042690	per0225048a	26-FEB-10 00:07	22387.6	2.79	2.81202	1.008	
246837001	per0225061a	26-FEB-10 01:46	20739.7	2.79	2.79963	1.003	
246837002	per0225062a	26-FEB-10 01:53	21103.1	2.79	2.7872	.999	
246837003	per0225063a	26-FEB-10 02:01	21371	2.77	2.78718	1.006	
246837004	per0225064a	26-FEB-10 02:08	21888.6	2.77	2.78723	1.006	
246837005	per0225065a	26-FEB-10 02:16	22526.6	2.77	2.78717	1.006	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1747

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0226006a**	**26-FEB-10**	**23518.4**				
Lower Area Limit			**11759.2**				
Upper Area Limit			**47036.8**				
246837006	per0226012a	26-FEB-10 15:45	23149.7	2.71	2.71262	1.001	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7992

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837001

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 90.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.55	2.2	0.550	ug/kg	U	1	26-FEB-10 01:46	per0225061a
	Perchlorate Isotope Ratio						1	26-FEB-10 01:46	per0225061a
14797-73-0	Perchlorate-101	.55	2.2	0.550	ug/kg	U	1	26-FEB-10 01:46	per0225061a
	Perchlorate-O(18)			5.40	ug/kg		1	26-FEB-10 01:46	per0225061a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

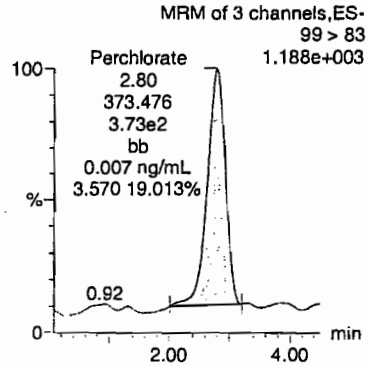
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225061a
Date: 26-Feb-2010
Time: 01:46:14
ID: 246837001
Vial: 2:3,A

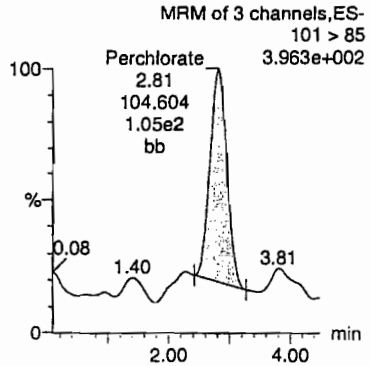
|LANL|952999| SOLID |1|

CWJ 02-26-10

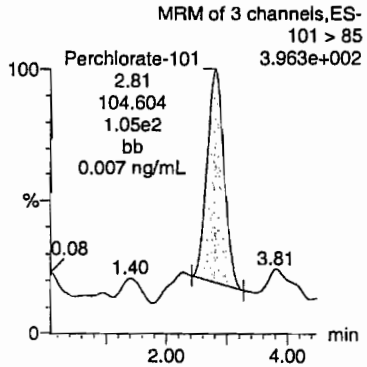
Perchlorate



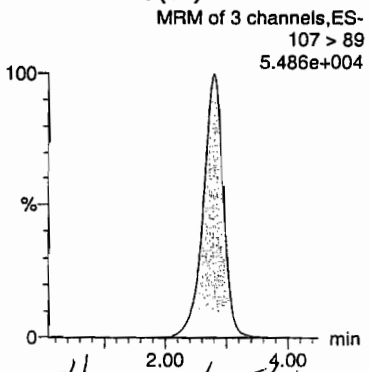
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hnm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246837001	Perchlorate	99 > 83	2.80	373.476	373.476	bb			0.0074			35.947	3.57
246837001	Perchlorate-101	101 > 85	2.81	104.604	104.604	bb			0.0065			69.063	
246837001	Perchlorate-O(18)	107 > 89	2.79	20739.707	20739.707	bb			0.4905	98.11	-1.89	2371.4...	

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7991

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837002

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.704	2.82	0.704	ug/kg	U	1	26-FEB-10 01:53	per0225062a
	Perchlorate Isotope Ratio						1	26-FEB-10 01:53	per0225062a
14797-73-0	Perchlorate-101	.704	2.82	0.704	ug/kg	U	1	26-FEB-10 01:53	per0225062a
	Perchlorate-O(18)			7.03	ug/kg		1	26-FEB-10 01:53	per0225062a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

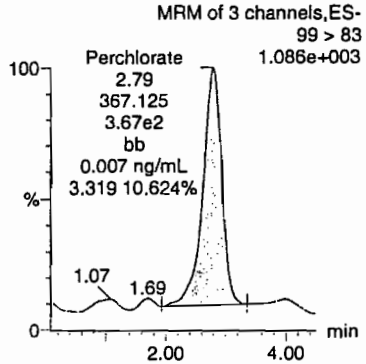
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225062a
Date: 26-Feb-2010
Time: 01:53:47
ID: 246837002
Vial: 2:3,B

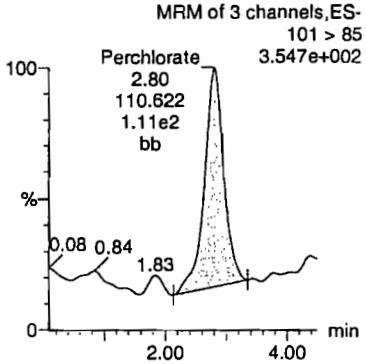
|LANL|952999|SOLID|1|

cw
02-26-10

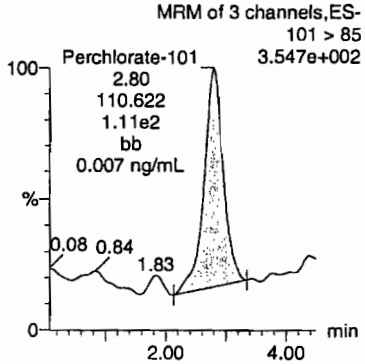
Perchlorate



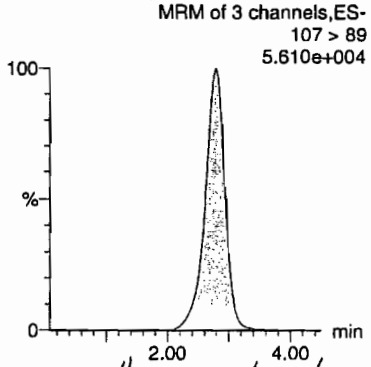
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hnm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246837002	Perchlorate	99 > 83	2.79	367.125	367.125	bb			0.0073			168.055	3.32
246837002	Perchlorate-101	101 > 85	2.80	110.622	110.622	bb			0.0069			46.142	
246837002	Perchlorate-O(18)	107 > 89	2.79	21103.127	21103.127	bb			0.4991	99.83	-0.17	5851.0...	

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7990

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837003

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 92

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	26-FEB-10 02:01	per0225063a
	Perchlorate Isotope Ratio						1	26-FEB-10 02:01	per0225063a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	26-FEB-10 02:01	per0225063a
	Perchlorate-O(18)			5.49	ug/kg		1	26-FEB-10 02:01	per0225063a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

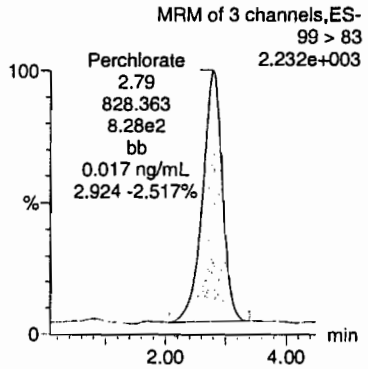
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225063a
Date: 26-Feb-2010
Time: 02:01:20
ID: 246837003
Vial: 2:3,C

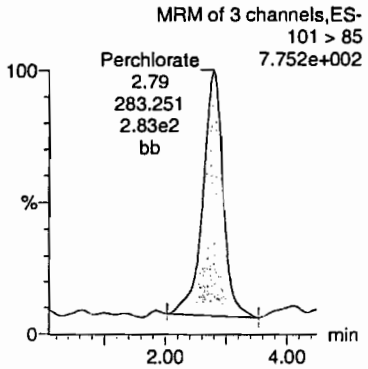
|LANL|952999|50620|1|

GW
02.26.10

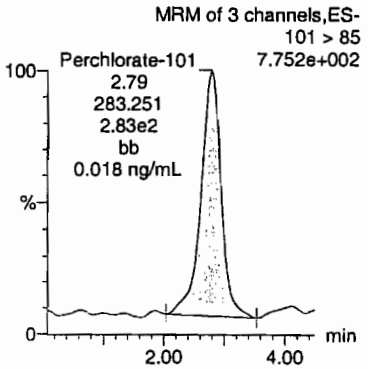
Perchlorate



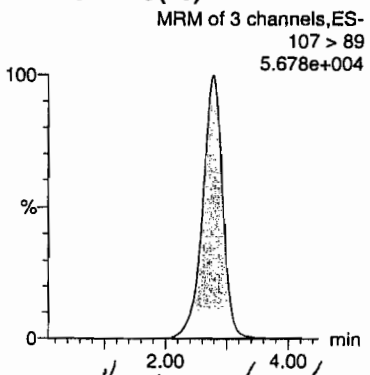
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HM 02/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246837003	Perchlorate	99 > 83	2.79	828.363	828.363	bb			0.0165			153.556	2.92
246837003	Perchlorate-101	101 > 85	2.79	283.251	283.251	bb			0.0176			140.743	
246837003	Perchlorate-O(18)	107 > 89	2.77	21370.971	21370.971	bb			0.5055	101.09	1.09	7041.0...	

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7987

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837004

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 66

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.762	3.05	0.762	ug/kg	U	1	26-FEB-10 02:08	per0225064a
	Perchlorate Isotope Ratio						1	26-FEB-10 02:08	per0225064a
14797-73-0	Perchlorate-101	.762	3.05	0.762	ug/kg	U	1	26-FEB-10 02:08	per0225064a
	Perchlorate-O(18)			7.89	ug/kg		1	26-FEB-10 02:08	per0225064a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

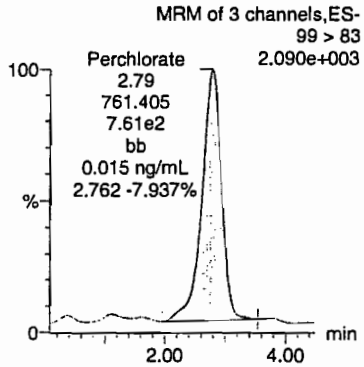
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225064a
Date: 26-Feb-2010
Time: 02:08:52
ID: 246837004
Vial: 2:3,D

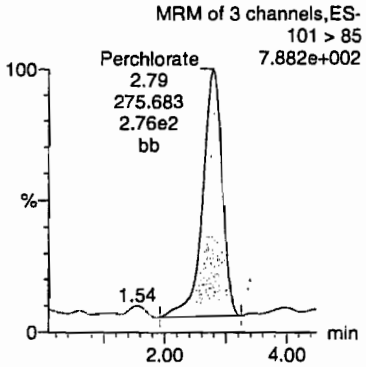
|LANL|952999|50120|1|

CW 02-26-10

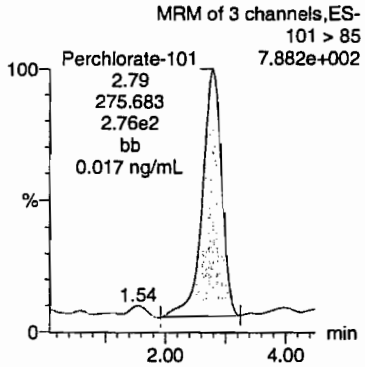
Perchlorate



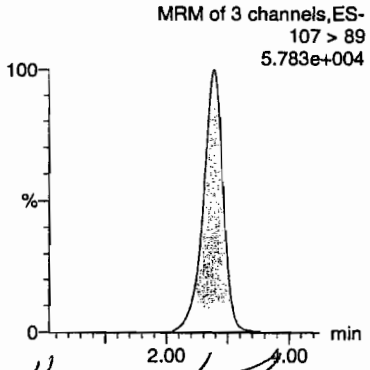
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246837004	Perchlorate	99 > 83	2.79	761.405	761.405	bb			0.0152			276.396	2.76
246837004	Perchlorate-101	101 > 85	2.79	275.683	275.683	bb			0.0171			121.494	
246837004	Perchlorate-O(18)	107 > 89	2.77	21888.619	21888.619	bb			0.5177	103.54	3.54	15409....	

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

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7988

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837005

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	26-FEB-10 02:16	per0225065a
	Perchlorate Isotope Ratio						1	26-FEB-10 02:16	per0225065a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	26-FEB-10 02:16	per0225065a
	Perchlorate-O(18)			5.87	ug/kg		1	26-FEB-10 02:16	per0225065a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

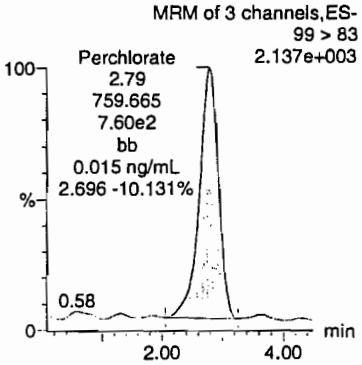
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225065a
Date: 26-Feb-2010
Time: 02:16:24
ID: 246837005
Vial: 2:3,E

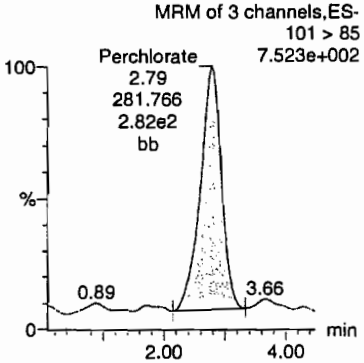
| LANL | 952999 | SOLID | 1 |

02-26-10

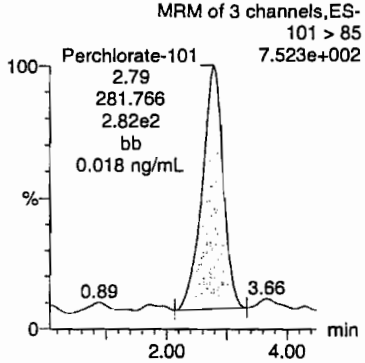
Perchlorate



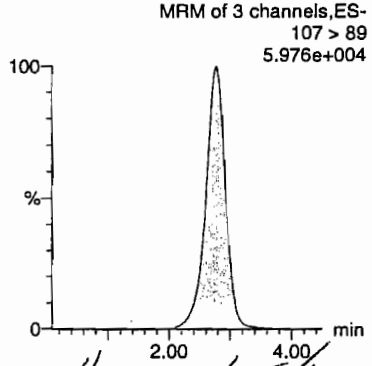
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246837005	Perchlorate	99 > 83	2.79	759.665	759.665	bb			0.0152			242.762	2.70
246837005	Perchlorate-101	101 > 85	2.79	281.766	281.766	bb			0.0175			123.321	
246837005	Perchlorate-O(18)	107 > 89	2.77	22526.625	22526.625	bb			0.5328	106.56	6.56	4976.3...	

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7989

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 246837006

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.681	2.72	0.681	ug/kg	U	1	26-FEB-10 15:45	per0226012a
	Perchlorate Isotope Ratio						1	26-FEB-10 15:45	per0226012a
14797-73-0	Perchlorate-101	.681	2.72	0.681	ug/kg	U	1	26-FEB-10 15:45	per0226012a
	Perchlorate-O(18)			6.66	ug/kg		1	26-FEB-10 15:45	per0226012a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

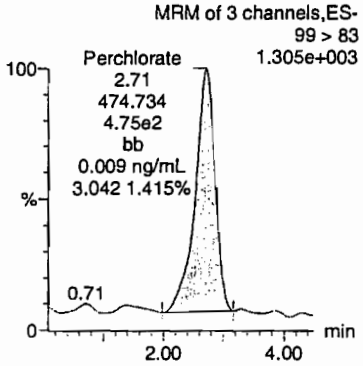
Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226012a
Date: 26-Feb-2010
Time: 15:45:48
ID: 246837006
Vial: 1:3,A

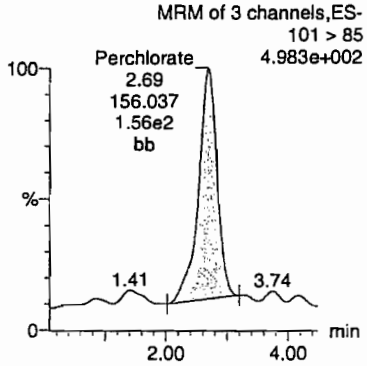
|LANL|952999|SOLID|1| RA

CWD 02-27-10

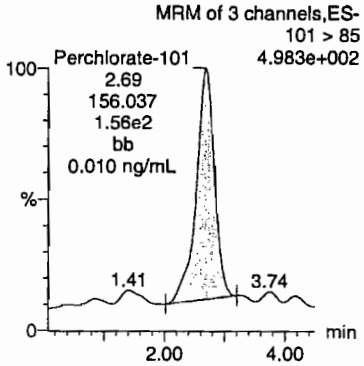
Perchlorate



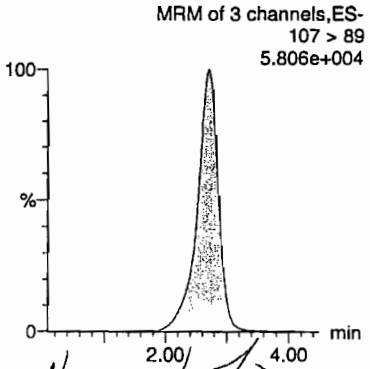
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246837006	Perchlorate	99 > 83	2.71	474.734	474.734	bb			0.0090			87.213	3.04
246837006	Perchlorate-101	101 > 85	2.69	156.037	156.037	bb			0.0095			18.602	
246837006	Perchlorate-O(18)	107 > 89	2.71	23149.686	23149.686	bb			0.4888	97.76	-2.24	7592.5...	

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

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1747

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 25-FEB-10

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

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

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 50138.2

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1747

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 25–FEB–10

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

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

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 16088.98

Response Type: External Standard

Curve Type: RF

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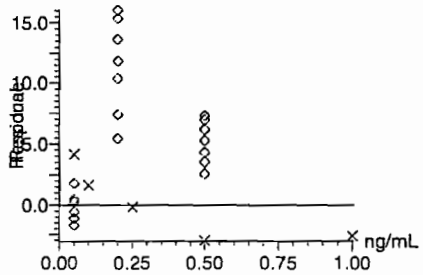
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

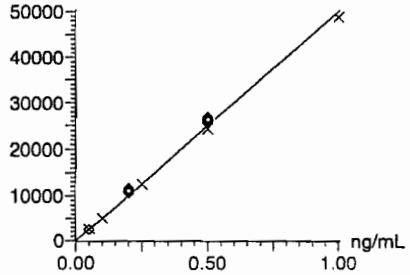
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

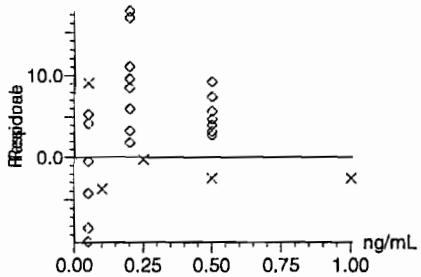
Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022510a.mdb 26 Feb 2010 09:10:03
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022510a.cdb 26 Feb 2010 09:11:04

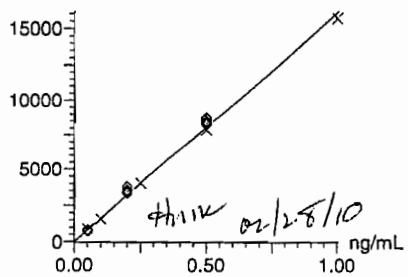
Compound name: Perchlorate
Response Factor: 50138.2
RRF SD: 1505.36, % Relative SD: 3.00243
Response type: External Std, Area
Curve type: RF





Compound name: Perchlorate-101
Response Factor: 16089
RRF SD: 840.652, % Relative SD: 5.22501
Response type: External Std, Area
Curve type: RF





02-26-10

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

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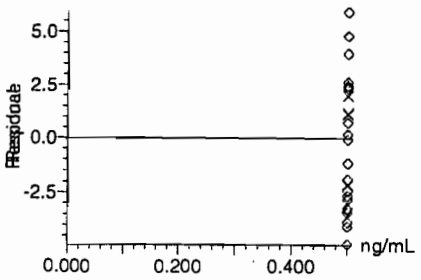
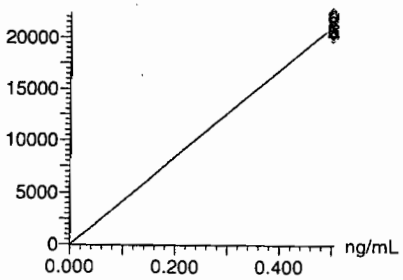
Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 42280
RRF SD: 835.81, % Relative SD: 1.97684
Response type: External Std, Area
Curve type: RF





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

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1747

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 26–FEB–10

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

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

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 52599.32

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1747

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 26–FEB–10

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

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

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 16420.74

Response Type: External Standard

Curve Type: RF

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

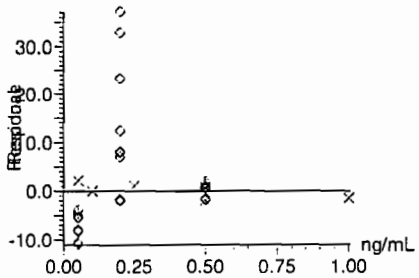
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

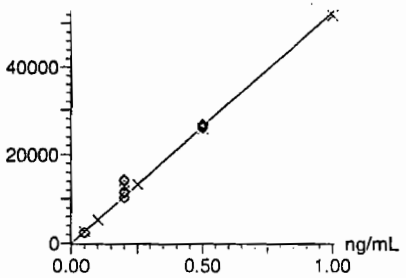
Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022610a.mdb 27 Feb 2010 11:35:41
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022610a.cdb 27 Feb 2010 11:36:46

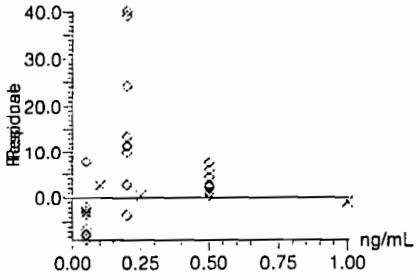
Compound name: Perchlorate
Response Factor: 52599.3
RRF SD: 919.658, % Relative SD: 1.74842
Response type: External Std, Area
Curve type: RF

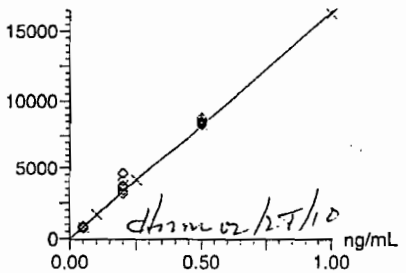




CWW 02.27.10

Compound name: Perchlorate-101
Response Response Factor: 16420.7
RRF SD: 339.892, % Relative SD: 2.0699
Response type: External Std, Area
Curve type: RF





dhmc 02/27/10

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

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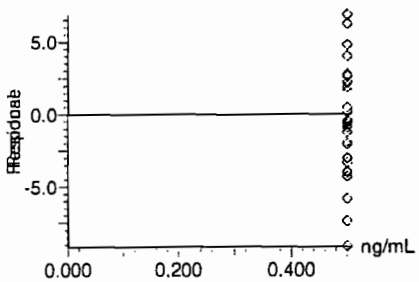
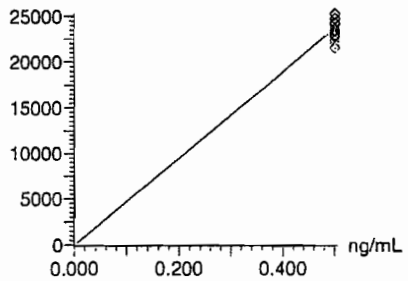
Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 47359.9
RRF SD: 553.088, % Relative SD: 1.16784
Response type: External Std, Area
Curve type: RF





Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1747

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	102.59	25–FEB–10 19:13	per0225009a
Perchlorate Isotope Ratio		3.03		25–FEB–10 19:13	per0225009a
Perchlorate–101	.5	.53	105.67	25–FEB–10 19:13	per0225009a
Perchlorate	.5	.51	101.4	26–FEB–10 15:23	per0226009a
Perchlorate Isotope Ratio		3.02		26–FEB–10 15:23	per0226009a
Perchlorate–101	.5	.54	107.6	26–FEB–10 15:23	per0226009a

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

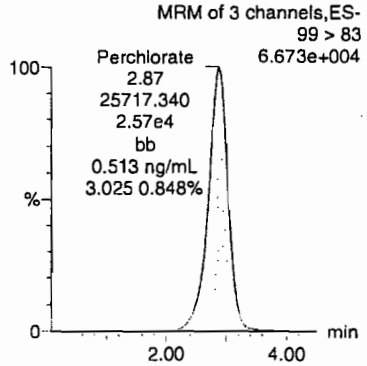
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

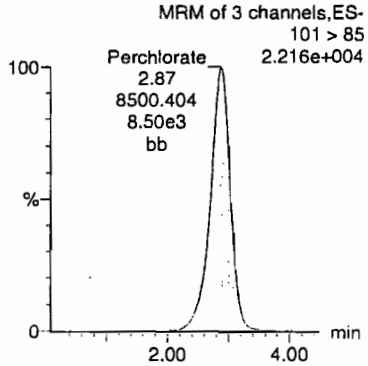
Name: per0225009a
Date: 25-Feb-2010
Time: 19:13:32
ID: WCL100219-06ICV
Vial: 1:2,A

CWW
02-26-10

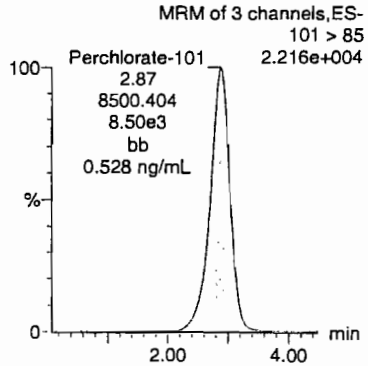
Perchlorate



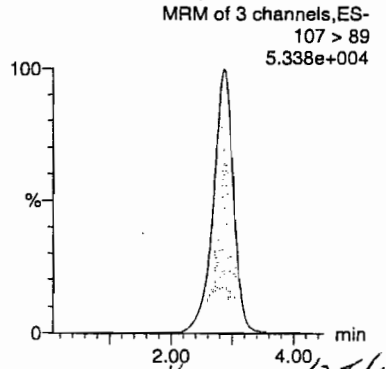
Perchlorate



Perchlorate-101



Perchlorate-O(18)



MMC 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06ICV	Perchlorate	99 > 83	2.87	25717.340	25717.340	bb			0.5129	102.59	2.59	5819.6...	3.03
WCL100219-06ICV	Perchlorate-101	101 > 85	2.87	8500.404	8500.404	bb			0.5283	105.67	5.67	4802.1...	
WCL100219-06ICV	Perchlorate-O(18)	107 > 89	2.86	20281.734	20281.734	bb			0.4797	95.94	-4.06	1576.6...	

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

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

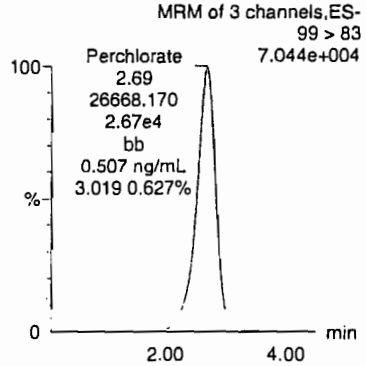
Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

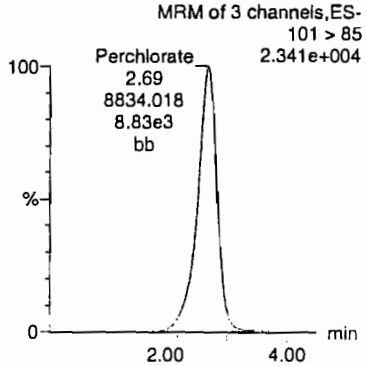
Name: per0226009a
Date: 26-Feb-2010
Time: 15:23:09
ID: WCL100219-06ICV
Vial: 1:2,A

Pass
and
0227-10

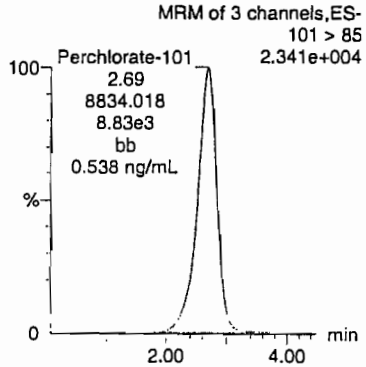
Perchlorate



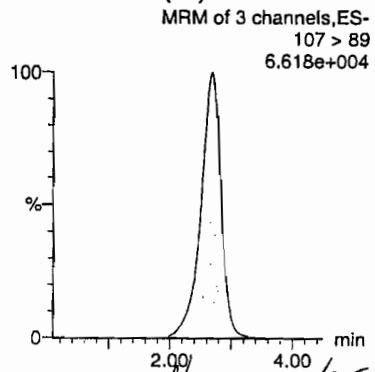
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06ICV	Perchlorate	99 > 83	2.69	26668.170	26668.170	bb			0.5070	101.40	1.40	11585....	3.02
WCL100219-06ICV	Perchlorate-101	101 > 85	2.69	8834.018	8834.018	bb			0.5380	107.60	7.60	3568.1...	
WCL100219-06ICV	Perchlorate-O(18)	107 > 89	2.68	25304.945	25304.945	bb			0.5343	106.86	6.86	4030.3...	

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1747

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.29	25–FEB–10 20:44	per0225021a
Perchlorate Isotope Ratio		3.15		25–FEB–10 20:44	per0225021a
Perchlorate–101	.5	.52	104.01	25–FEB–10 20:44	per0225021a
Perchlorate	.5	.52	104.31	25–FEB–10 22:07	per0225032a
Perchlorate Isotope Ratio		3.16		25–FEB–10 22:07	per0225032a
Perchlorate–101	.5	.51	102.75	25–FEB–10 22:07	per0225032a
Perchlorate	.5	.54	107.27	25–FEB–10 23:30	per0225043a
Perchlorate Isotope Ratio		3.11		25–FEB–10 23:30	per0225043a
Perchlorate–101	.5	.54	107.41	25–FEB–10 23:30	per0225043a
Perchlorate	.5	.53	106.92	26–FEB–10 01:00	per0225055a
Perchlorate Isotope Ratio		3.23		26–FEB–10 01:00	per0225055a
Perchlorate–101	.5	.52	103.21	26–FEB–10 01:00	per0225055a
Perchlorate	.5	.53	106.15	26–FEB–10 02:23	per0225066a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1747

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.03		26–FEB–10 02:23	per0225066a
Perchlorate–101	.5	.55	109.25	26–FEB–10 02:23	per0225066a
Perchlorate	.5	.5	100.42	26–FEB–10 16:38	per0226019a
Perchlorate Isotope Ratio		3.18		26–FEB–10 16:38	per0226019a
Perchlorate–101	.5	.51	101.06	26–FEB–10 16:38	per0226019a

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

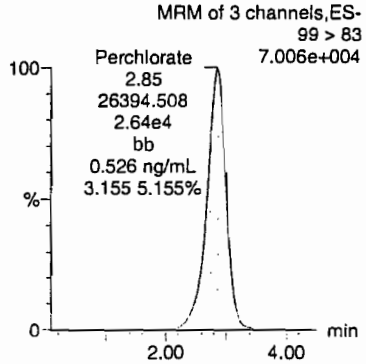
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

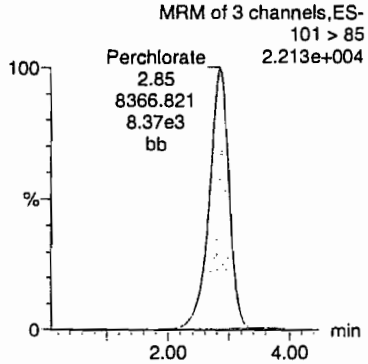
Name: per0225021a
Date: 25-Feb-2010
Time: 20:44:01
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
GW
02-26-10

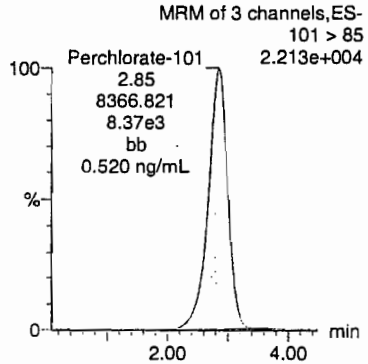
Perchlorate



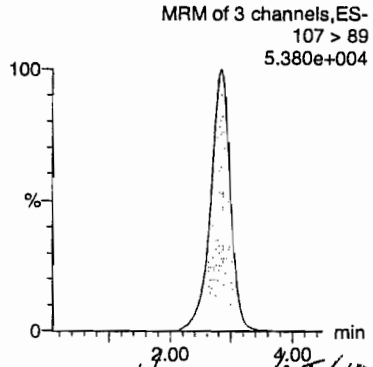
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.85	26394.508	26394.508	bb			0.5264	105.29	5.29	6425.5...	3.15
WCL100219-06CCV	Perchlorate-101	101 > 85	2.85	8366.821	8366.821	bb			0.5200	104.01	4.01	5111.1...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.84	20421.129	20421.129	bb			0.4830	96.60	-3.40	2822.6...	

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

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

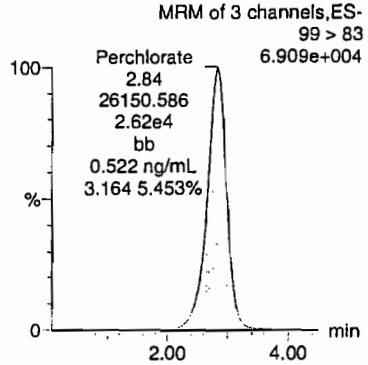
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

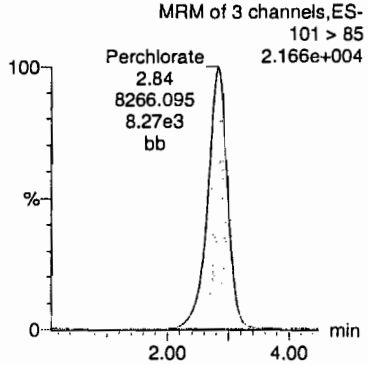
Name: per0225032a
Date: 25-Feb-2010
Time: 22:07:00
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
GW
02-26-10

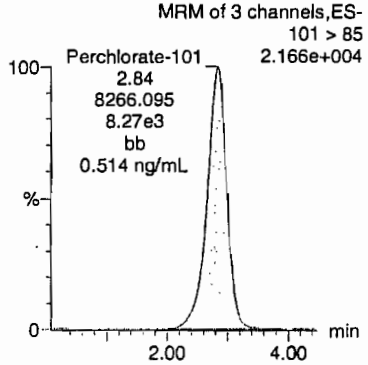
Perchlorate



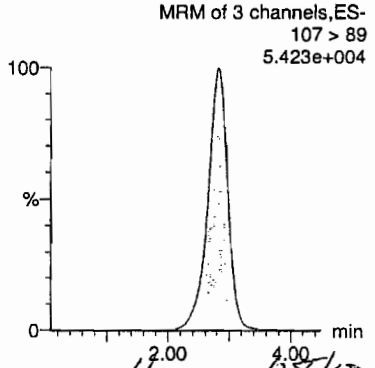
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.84	26150.586	26150.586	bb			0.5216	104.31	4.31	1767.7...	3.16
WCL100219-06CCV	Perchlorate-101	101 > 85	2.84	8266.095	8266.095	bb			0.5138	102.75	2.75	6255.0...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.82	20627.057	20627.057	bb			0.4879	97.57	-2.43	6604.8...	

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

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

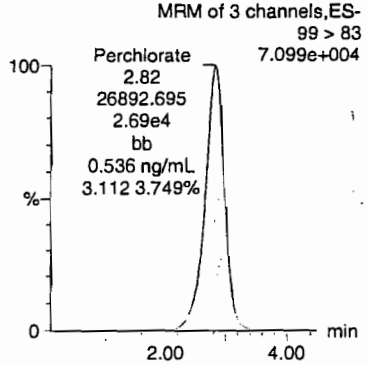
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

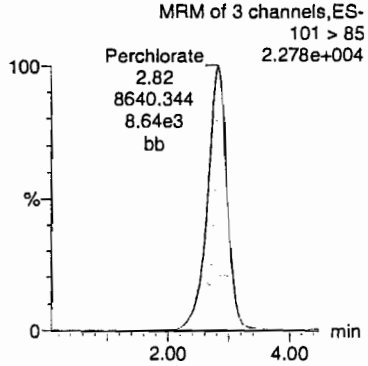
Name: per0225043a
Date: 25-Feb-2010
Time: 23:30:02
ID: WCL100219-06CCV
Vial: 1:2,A

Pwp
02-26-10

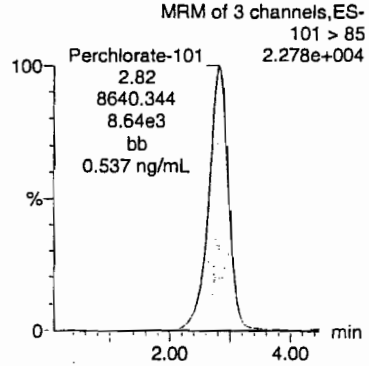
Perchlorate



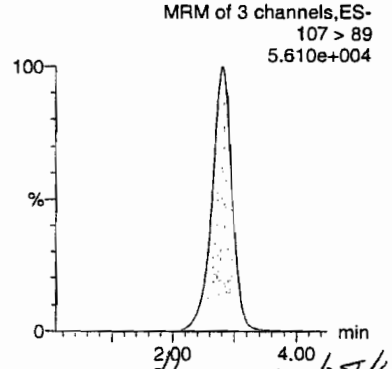
Perchlorate



Perchlorate-101



Perchlorate-O(18)



AMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.82	26892.695	26892.695	bb			0.5364	107.27	7.27	6390.7...	3.11
WCL100219-06CCV	Perchlorate-101	101 > 85	2.82	8640.344	8640.344	bb			0.5370	107.41	7.41	10835....	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.81	21125.762	21125.762	bb			0.4997	99.93	-0.07	4177.5...	

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

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

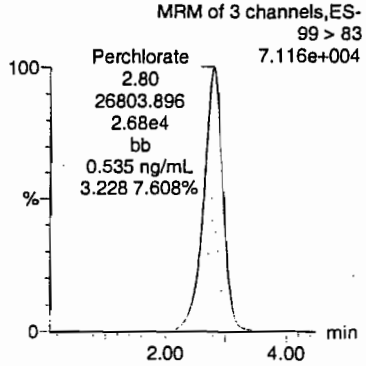
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

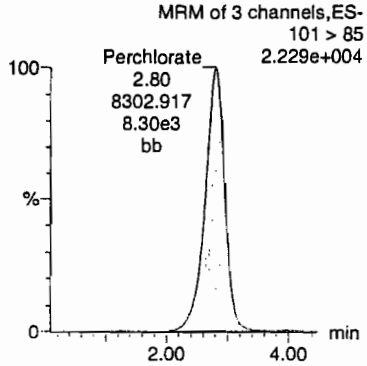
Name: per0225055a
Date: 26-Feb-2010
Time: 01:00:40
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
02-26-10

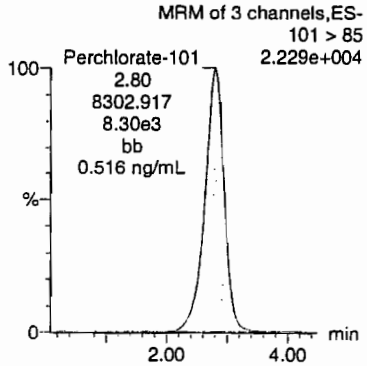
Perchlorate



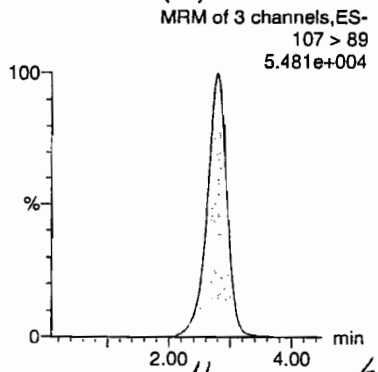
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 02-28-10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.80	26803.896	26803.896	bb			0.5346	106.92	6.92	4878.5...	3.23
WCL100219-06CCV	Perchlorate-101	101 > 85	2.80	8302.917	8302.917	bb			0.5161	103.21	3.21	7535.8...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.79	20544.043	20544.043	bb			0.4859	97.18	-2.82	2556.1...	

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

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

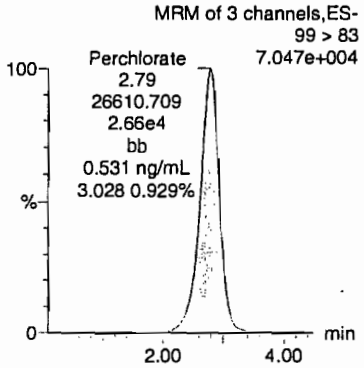
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

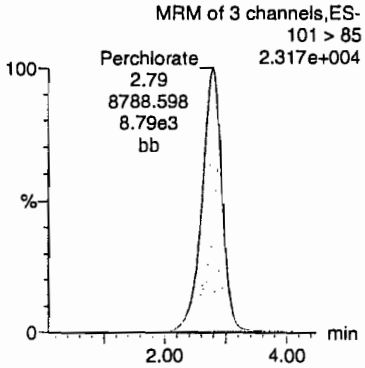
Name: per0225066a
Date: 26-Feb-2010
Time: 02:23:56
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
02-26-10

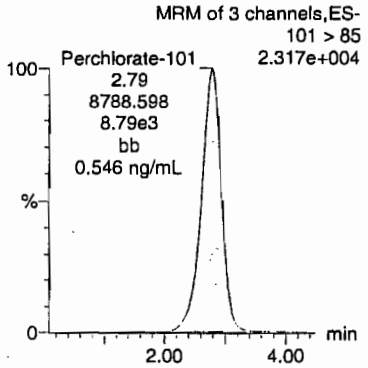
Perchlorate



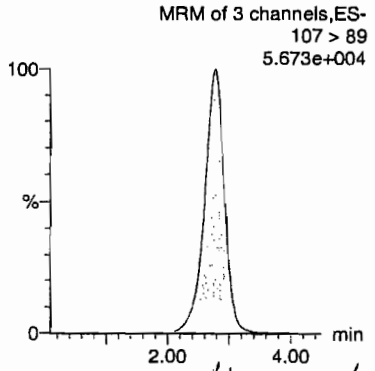
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hamm 02/26/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.79	26610.709	26610.709	bb			0.5307	106.15	6.15	1269.7...	3.03
WCL100219-06CCV	Perchlorate-101	101 > 85	2.79	8788.598	8788.598	bb			0.5462	109.25	9.25	2917.0...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.77	21293.178	21293.178	bb			0.5036	100.72	0.72	1377.5...	

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

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

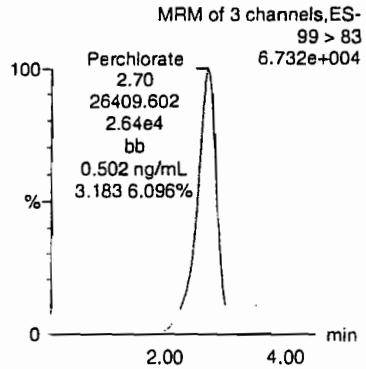
Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

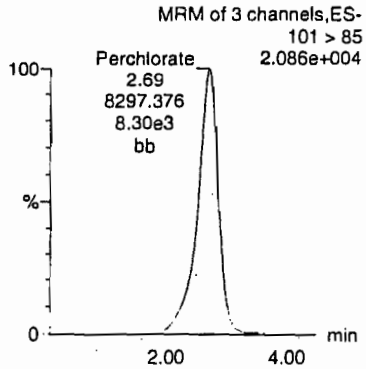
Name: per0226019a
Date: 26-Feb-2010
Time: 16:38:32
ID: WCL100219-06CCV
Vial: 1:2,A

Pwb
aw
02-27-10

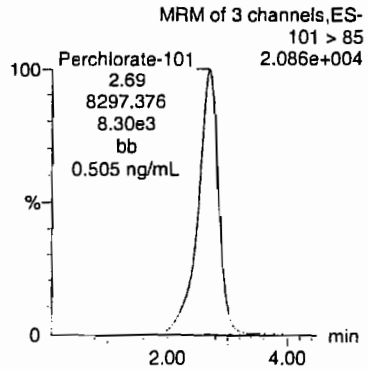
Perchlorate



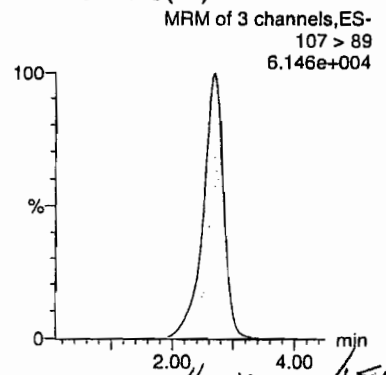
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.70	26409.602	26409.602	bb			0.5021	100.42	0.42	5639.1...	3.18
WCL100219-06CCV	Perchlorate-101	101 > 85	2.69	8297.376	8297.376	bb			0.5053	101.06	1.06	2570.1...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.69	24131.871	24131.871	bb			0.5095	101.91	1.91	2270.4...	

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

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	99.45	25-FEB-10 19:28	per0225011a
Perchlorate Isotope Ratio		3.44		25-FEB-10 19:28	per0225011a
Perchlorate-101	.05	.05	90.17	25-FEB-10 19:28	per0225011a
Perchlorate	.05	.05	100.48	25-FEB-10 20:59	per0225023a
Perchlorate Isotope Ratio		3.41		25-FEB-10 20:59	per0225023a
Perchlorate-101	.05	.05	91.78	25-FEB-10 20:59	per0225023a
Perchlorate	.05	.05	100.28	25-FEB-10 22:22	per0225034a
Perchlorate Isotope Ratio		3.14		25-FEB-10 22:22	per0225034a
Perchlorate-101	.05	.05	99.53	25-FEB-10 22:22	per0225034a
Perchlorate	.05	.05	101.77	25-FEB-10 23:45	per0225045a
Perchlorate Isotope Ratio		3.04		25-FEB-10 23:45	per0225045a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1747

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.05	104.21	25–FEB–10 23:45	per0225045a
Perchlorate	.05	.05	98.91	26–FEB–10 01:15	per0225057a
Perchlorate Isotope Ratio		2.93		26–FEB–10 01:15	per0225057a
Perchlorate–101	.05	.05	105.3	26–FEB–10 01:15	per0225057a
Perchlorate	.05	.05	98.3	26–FEB–10 02:39	per0225068a
Perchlorate Isotope Ratio		3.2		26–FEB–10 02:39	per0225068a
Perchlorate–101	.05	.05	95.7	26–FEB–10 02:39	per0225068a
Perchlorate	.05	.05	95.4	26–FEB–10 15:38	per0226011a
Perchlorate Isotope Ratio		3.14		26–FEB–10 15:38	per0226011a
Perchlorate–101	.05	.05	97.25	26–FEB–10 15:38	per0226011a
Perchlorate	.05	.05	91.74	26–FEB–10 16:53	per0226021a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1747

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.18		26–FEB–10 16:53	per0226021a
Perchlorate–101	.05	.05	92.35	26–FEB–10 16:53	per0226021a

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

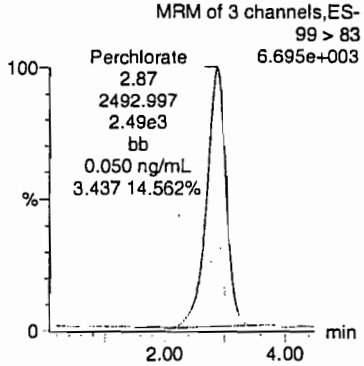
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

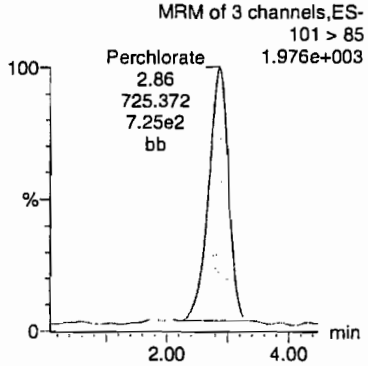
Name: per0225011a
Date: 25-Feb-2010
Time: 19:28:37
ID: WCL100219-07CRI
Vial: 1:2,B

CW
02-26-10

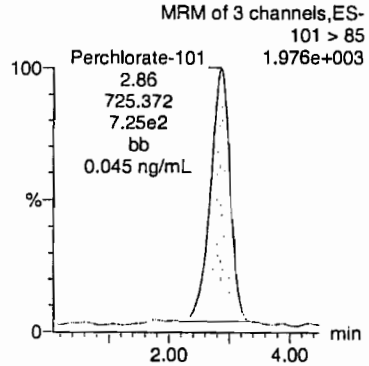
Perchlorate



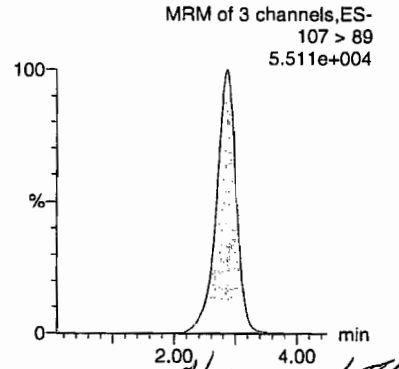
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.87	2492.997	2492.997	bb			0.0497	99.45	-0.55	447.232	3.44
WCL100219-07CRI	Perchlorate-101	101 > 85	2.86	725.372	725.372	bb			0.0451	90.17	-9.83	266.230	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.86	20892.951	20892.951	bb			0.4942	98.83	-1.17	25998....	

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

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

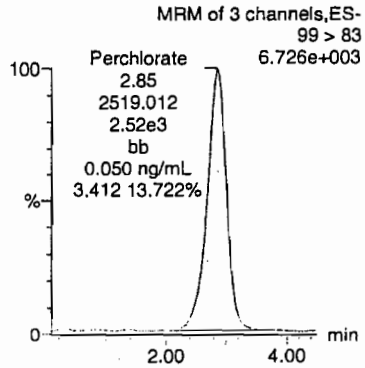
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

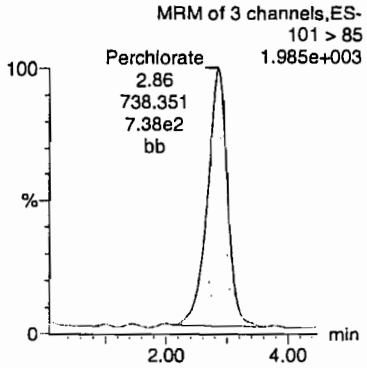
Name: per0225023a
Date: 25-Feb-2010
Time: 20:59:07
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
02-26-10

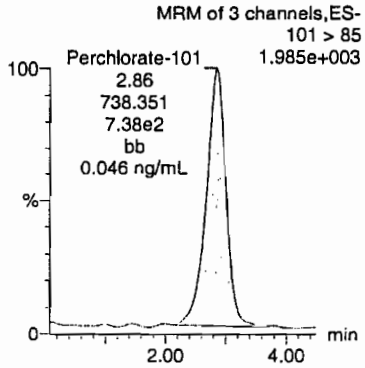
Perchlorate



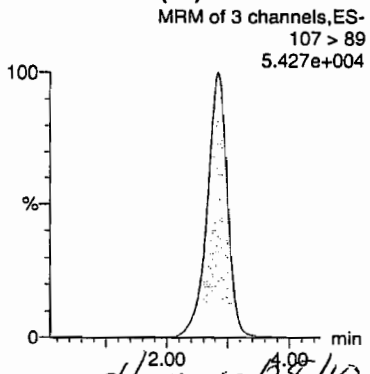
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.85	2519.012	2519.012	bb			0.0502	100.48	0.48	485.689	3.41
WCL100219-07CRI	Perchlorate-101	101 > 85	2.86	738.351	738.351	bb			0.0459	91.78	-8.22	398.772	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.84	20737.988	20737.988	bb			0.4905	98.10	-1.90	10457....	

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

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson
Page 34 of 77

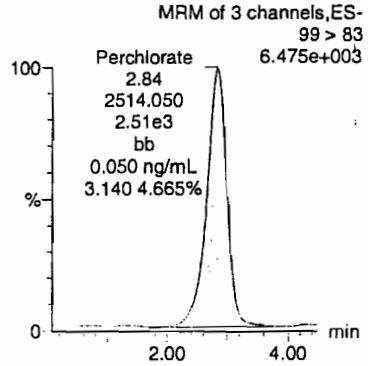
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

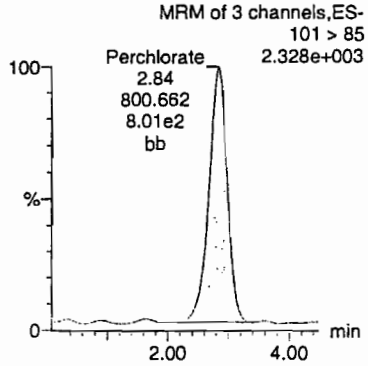
Name: per0225034a
Date: 25-Feb-2010
Time: 22:22:05
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
CW
02-26-10

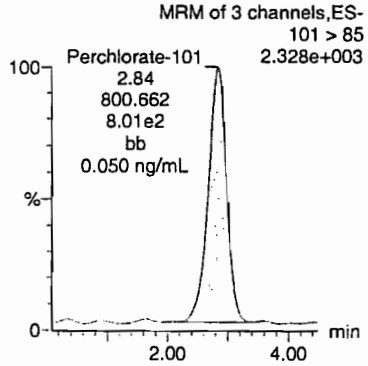
Perchlorate



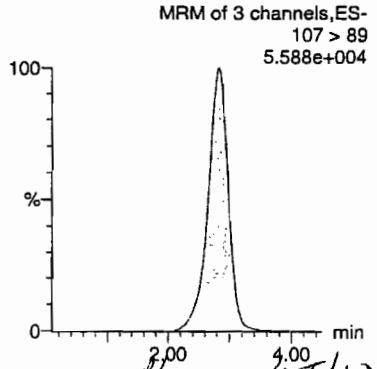
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmc 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.84	2514.050	2514.050	bb			0.0501	100.28	0.28	644.176	3.14
WCL100219-07CRI	Perchlorate-101	101 > 85	2.84	800.662	800.662	bb			0.0498	99.53	-0.47	230.426	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.82	21177.027	21177.027	bb			0.5009	100.18	0.18	11607....	

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

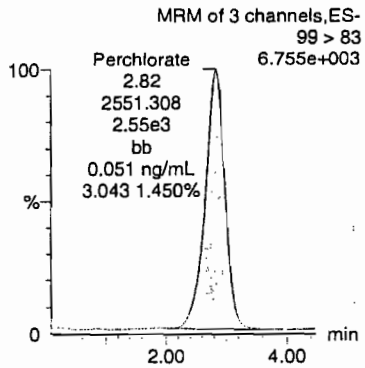
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

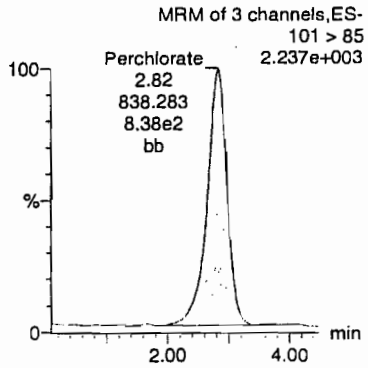
Name: per0225045a
Date: 25-Feb-2010
Time: 23:45:07
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
02-26-10

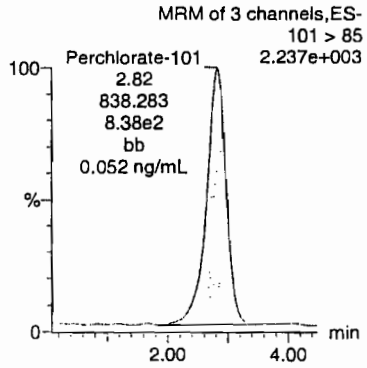
Perchlorate



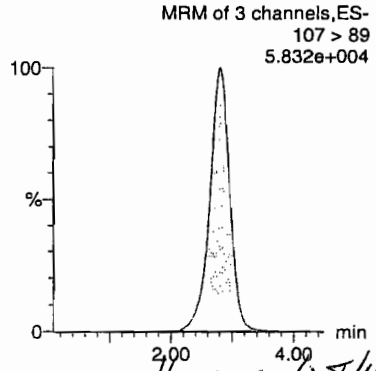
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmw 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.82	2551.308	2551.308	bb			0.0509	101.77	1.77	623.238	3.04
WCL100219-07CRI	Perchlorate-101	101 > 85	2.82	838.283	838.283	bb			0.0521	104.21	4.21	1260.2...	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.81	21980.064	21980.064	bb			0.5199	103.97	3.97	4206.6...	

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

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

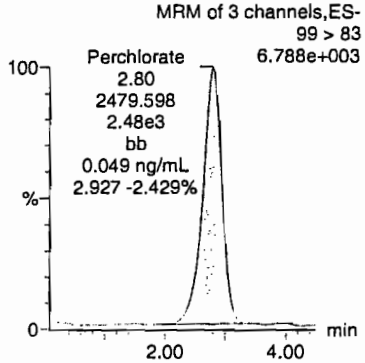
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

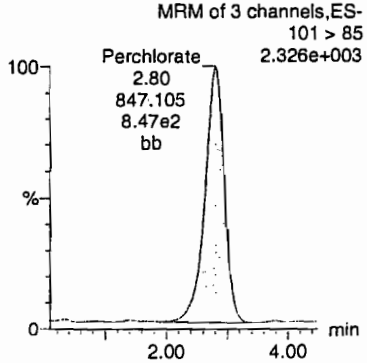
Name: per0225057a
Date: 26-Feb-2010
Time: 01:15:58
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
02-26-10

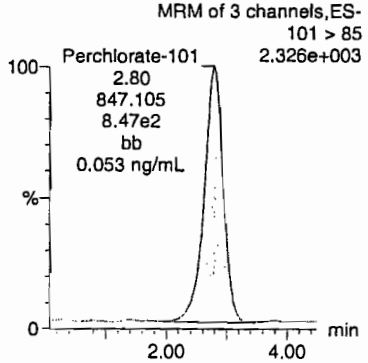
Perchlorate



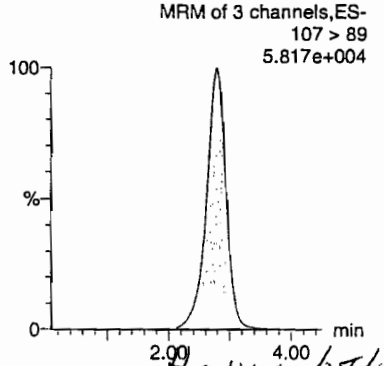
Perchlorate



Perchlorate-101



Perchlorate-O(18)



AM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.80	2479.598	2479.598	bb			0.0495	98.91	-1.09	1008.1...	2.93
WCL100219-07CRI	Perchlorate-101	101 > 85	2.80	847.105	847.105	bb			0.0527	105.30	5.30	277.212	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.79	21697.701	21697.701	bb			0.5132	102.64	2.64	10467....	

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

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

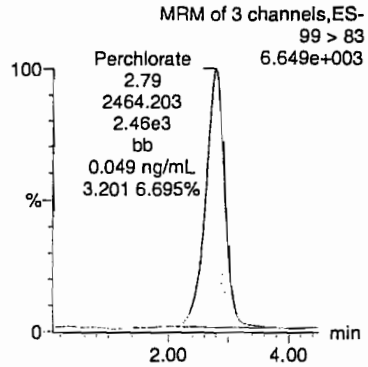
Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

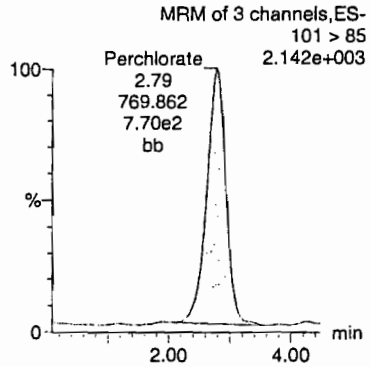
Name: per0225068a
Date: 26-Feb-2010
Time: 02:39:15
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
ans
02-26-10

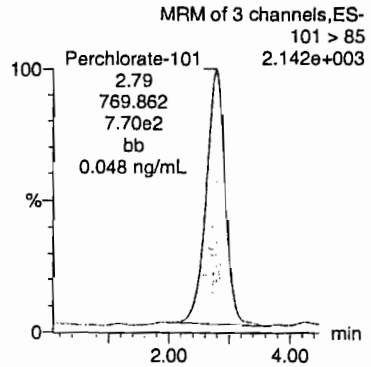
Perchlorate



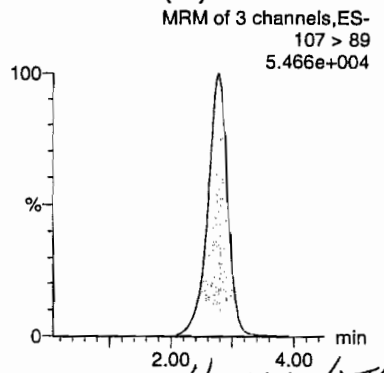
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.79	2464.203	2464.203	bb			0.0491	98.30	-1.70	1020.6...	3.20
WCL100219-07CRI	Perchlorate-101	101 > 85	2.79	769.862 ✓	769.862	bb			0.0479	95.70	-4.30	216.781	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.77	20578.656	20578.656	bb			0.4867	97.34 ✓	-2.66	5218.8...	

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

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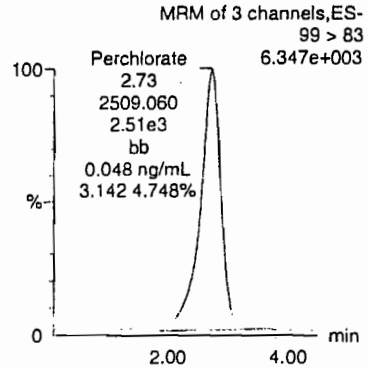
Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

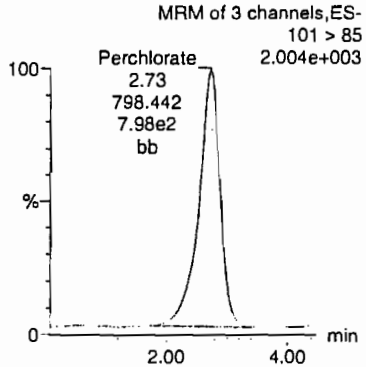
Name: per0226011a
Date: 26-Feb-2010
Time: 15:38:14
ID: WCL100219-07CRI
Vial: 1:2,B

PWD
02-27-10

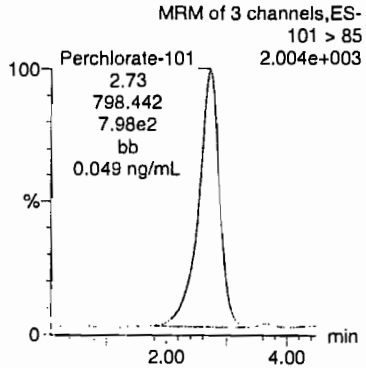
Perchlorate



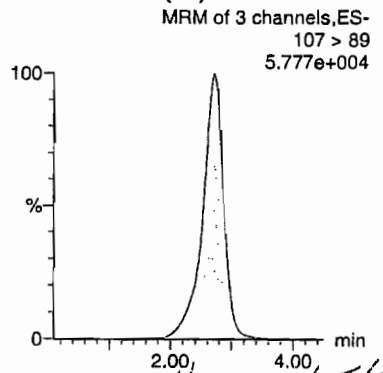
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.73	2509.060	2509.060	bb			0.0477	95.40	-4.60	855.323	3.14
WCL100219-07CRI	Perchlorate-101	101 > 85	2.73	798.442	798.442	bb			0.0486	97.25	-2.75	152.708	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.71	23231.760	23231.760	bb			0.4905	98.11	-1.89	4322.4...	

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

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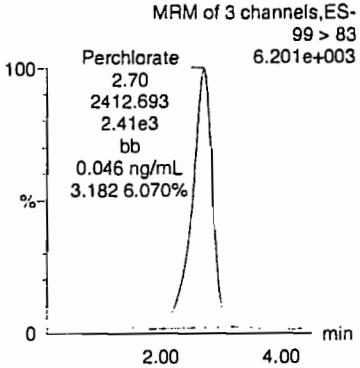
Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

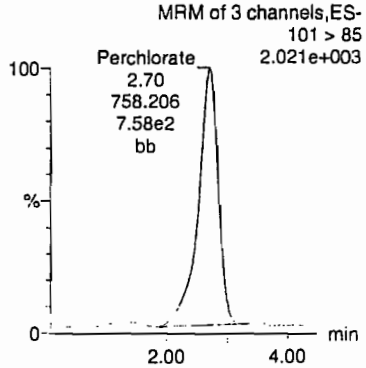
Name: per0226021a
Date: 26-Feb-2010
Time: 16:53:35
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
02.27.10

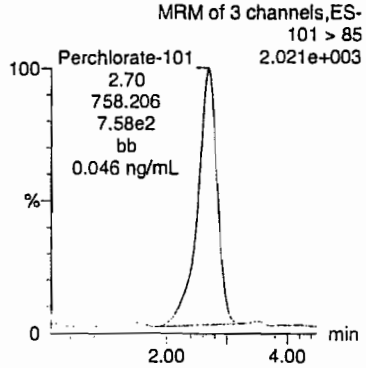
Perchlorate



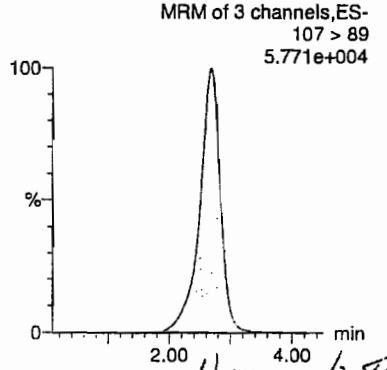
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HLM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.70	2412.693	2412.693	bb			0.0459	91.74	-8.26	451.207	3.18
WCL100219-07CRI	Perchlorate-101	101 > 85	2.70	758.206	758.206	bb			0.0462	92.35	-7.65	575.590	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.68	22659.063	22659.063	bb			0.4784	95.69	-4.31	2251.4...	

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 23-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 1202042686

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	25-FEB-10 23:52	per0225046a
	Perchlorate Isotope Ratio						1	25-FEB-10 23:52	per0225046a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	25-FEB-10 23:52	per0225046a
	Perchlorate-O(18)			4.90	ug/kg		1	25-FEB-10 23:52	per0225046a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

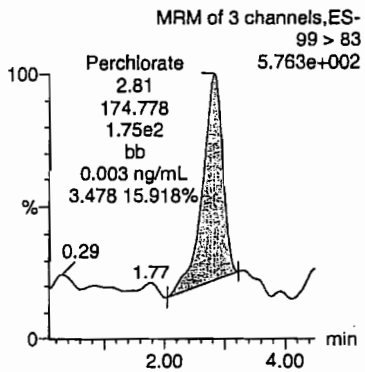
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225046a
Date: 25-Feb-2010
Time: 23:52:42
ID: 1202042686
Vial: 2:1,A

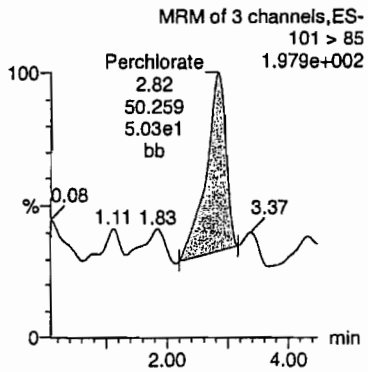
|LANL|952999|SUL2D|MB|1|

02-26-10

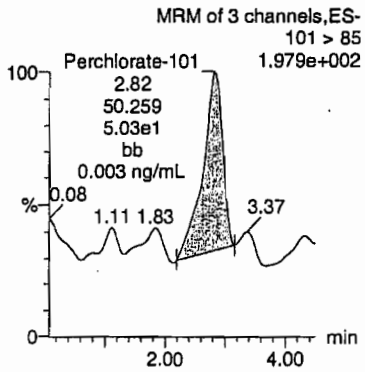
Perchlorate



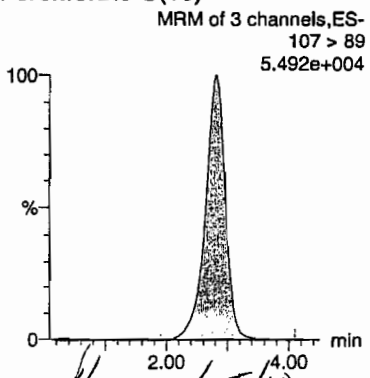
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202042686	Perchlorate	99 > 83	2.81	174.778	174.778	bb			0.0035			29.192	3.48
1202042686	Perchlorate-101	101 > 85	2.82	50.259	50.259	bb			0.0031			29.487	
1202042686	Perchlorate-O(18)	107 > 89	2.81	20720.451	20720.451	bb			0.4901	98.02	-1.98	4467.8...	

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952998

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 23-FEB-10

GEL Job No (SDG): 10-1747

GEL Sample ID: 1202042687

Date Filtered: 23-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.21	ug/kg		1	26-FEB-10 00:00	per0225047a
	Perchlorate Isotope Ratio			3.17			1	26-FEB-10 00:00	per0225047a
14797-73-0	Perchlorate-101	.5	2	2.17	ug/kg		1	26-FEB-10 00:00	per0225047a
	Perchlorate-O(18)			5.12	ug/kg		1	26-FEB-10 00:00	per0225047a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

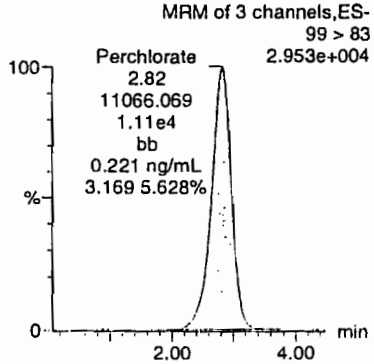
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225047a
Date: 26-Feb-2010
Time: 00:00:25
ID: 1202042687
Vial: 2:1,B

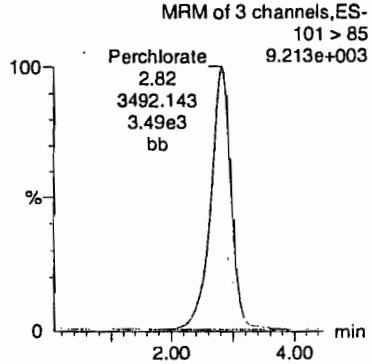
|LANL|952999|50120|LCS|1|

WW 02-26-10

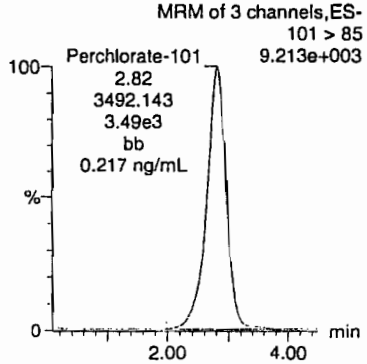
Perchlorate



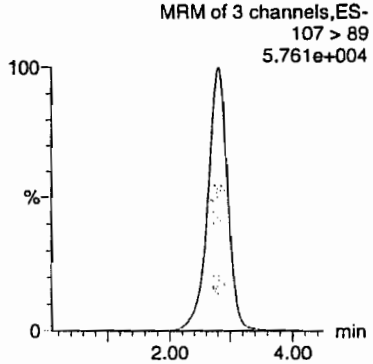
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202042687	Perchlorate	99 > 83	2.82	11066.069	11066.069	bb			0.2207	110.36	10.36	2883.1...	3.17
1202042687	Perchlorate-101	101 > 85	2.82	3492.143	3492.143	bb			0.2171	108.53	8.53	3545.4...	
1202042687	Perchlorate-O(18)	107 > 89	2.81	21649.473	21649.473	bb			0.5120	102.41	2.41	3724.0...	

$$\frac{11066.069}{501382} = 0.2207$$

HMM 02/28/10

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

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MISCELLANEOUS DATA

Prep Logbook

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

Batch ID: 952998 **Verified by:** _____

Analyst: Charles Wilson

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202042686 MB	23-FEB-2010 18:10:00	2	20	10
1202042687 LCS	23-FEB-2010 18:10:00	2	20	10
246735001	23-FEB-2010 18:10:00	2	20	10
246735002	23-FEB-2010 18:10:00	2	20	10
1202042688 MS (246735002)	23-FEB-2010 18:10:00	2	20	10
1202042689 MSD (246735002)	23-FEB-2010 18:10:00	2	20	10
246735003	23-FEB-2010 18:10:00	2	20	10
246735004	23-FEB-2010 18:10:00	2	20	10
246735005	23-FEB-2010 18:10:00	2	20	10
246752002	23-FEB-2010 18:10:00	2	20	10
246752003	23-FEB-2010 18:10:00	2	20	10
246837001	23-FEB-2010 18:10:00	2	20	10
246837002	23-FEB-2010 18:10:00	2	20	10
246837003	23-FEB-2010 18:10:00	2	20	10
246837004	23-FEB-2010 18:10:00	2	20	10
246837005	23-FEB-2010 18:10:00	2	20	10
246837006	23-FEB-2010 18:10:00	2	20	10
246841001	23-FEB-2010 18:10:00	2	20	10
246841002	23-FEB-2010 18:10:00	2	20	10
246841003	23-FEB-2010 18:10:00	2	20	10
246843002	23-FEB-2010 18:10:00	2	20	10
246843003	23-FEB-2010 18:10:00	2	20	10
246843004	23-FEB-2010 18:10:00	2	20	10
1202042690 ICS	23-FEB-2010 18:10:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202042690	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.4	mL
LCS	1202042687	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.4	mL
MS	1202042688	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.4	mL
MSD	1202042689	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.4	mL

Comments:

Desalting cartridges used: BJ0003K0402 (IC-Ba) & bj0005J0812 (IC-H)

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/25/10
Extr. Injection Volume: 20uL
Sequence Number: per022510a
Initial Calibration Date: 02/25/10

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

Reviewed BY: Hmc
Date: 02/28/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100219-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0225001a	IPB001	CWW	2/25/2010 18:13			1		USE	B
per0225002a	IPB001	CWW	2/25/2010 18:20			1		USE	B
per0225003a	WCLICAL-01	CWW	2/25/2010 18:28			1		USE	I
per0225004a	WCLICAL-02	CWW	2/25/2010 18:35			1		USE	I
per0225005a	WCLICAL-03	CWW	2/25/2010 18:43			1		USE	I
per0225006a	WCLICAL-04	CWW	2/25/2010 18:50			1		USE	I
per0225007a	WCLICAL-05	CWW	2/25/2010 18:58			1		USE	I
per0225008a	IPB002	CWW	2/25/2010 19:05			1		USE	B
per0225009a	WCLICV	CWW	2/25/2010 19:13			1		USE	C
per0225010a	IPB003	CWW	2/25/2010 19:21			1		USE	B
per0225011a	WCLCRI	CWW	2/25/2010 19:28			1		USE	C
per0225012a	1202035651	CWW	2/25/2010 19:36	950066	10-1543	1	LANL	USE	S
per0225013a	1202035652	CWW	2/25/2010 19:43	950066	10-1543	1	LANL	USE	S
per0225014a	1202035655	CWW	2/25/2010 19:51	950066	10-1543	1	LANL	USE	S
per0225015a	246066001	CWW	2/25/2010 19:58	950066	10-1543	1	LANL	USE	S
per0225016a	246066002	CWW	2/25/2010 20:06	950066	10-1543	1	LANL	USE	S
per0225017a	1202035653	CWW	2/25/2010 20:13	950066	10-1543	1	LANL	USE	S
per0225018a	1202035654	CWW	2/25/2010 20:21	950066	10-1543	1	LANL	USE	S
per0225019a	246066003	CWW	2/25/2010 20:28	950066	10-1543	1	LANL	USE	S
per0225020a	246066004	CWW	2/25/2010 20:36	950066	10-1543	1	LANL	USE	S
per0225021a	WCLCCV	CWW	2/25/2010 20:44			1		USE	C
per0225022a	IPB004	CWW	2/25/2010 20:51			1		USE	B
per0225023a	WCLCRI	CWW	2/25/2010 20:59			1		USE	C
per0225024a	246066005	CWW	2/25/2010 21:06	950066	10-1543	1	LANL	USE	S
per0225025a	246066006	CWW	2/25/2010 21:14	950066	10-1543	1	LANL	USE	S
per0225026a	246066007	CWW	2/25/2010 21:21	950066	10-1543	1	LANL	USE	S
per0225027a	246066008	CWW	2/25/2010 21:29	950066	10-1543	1	LANL	USE	S
per0225028a	246066009	CWW	2/25/2010 21:36	950066	10-1543	1	LANL	USE	S
per0225029a	246066010	CWW	2/25/2010 21:44	950066	10-1543	1	LANL	USE	S

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per0225030a	246066011	CWW	2/25/2010 21:51	950066	10-1543	1	LANL	USE	S
per0225031a	246066012	CWW	2/25/2010 21:59	950066	10-1543	1	LANL	USE	S
per0225032a	WCLCCV	CWW	2/25/2010 22:07			1		USE	C
per0225033a	IPB005	CWW	2/25/2010 22:14			1		USE	B
per0225034a	WCLCRI	CWW	2/25/2010 22:22			1		USE	C
per0225035a	246066013	CWW	2/25/2010 22:29	950066	10-1543	1	LANL	USE	S
per0225036a	246066014	CWW	2/25/2010 22:37	950066	10-1543	1	LANL	USE	S
per0225037a	246066015	CWW	2/25/2010 22:44	950066	10-1543	1	LANL	USE	S
per0225038a	246066016	CWW	2/25/2010 22:52	950066	10-1543	1	LANL	USE	S
per0225039a	246066017	CWW	2/25/2010 22:59	950066	10-1543	1	LANL	USE	S
per0225040a	246066018	CWW	2/25/2010 23:07	950066	10-1543	1	LANL	USE	S
per0225041a	246066019	CWW	2/25/2010 23:14	950066	10-1543	1	LANL	USE	S
per0225042a	246066020	CWW	2/25/2010 23:22	950066	10-1543	1	LANL	USE	S
per0225043a	WCLCCV	CWW	2/25/2010 23:30			1		USE	C
per0225044a	IPB006	CWW	2/25/2010 23:37			1		USE	B
per0225045a	WCLCRI	CWW	2/25/2010 23:45			1		USE	C
per0225046a	1202042686	CWW	2/25/2010 23:52	952999	VARIOUS	1	LANL	USE	S
per0225047a	1202042687	CWW	2/26/2010 0:00	952999	VARIOUS	1	LANL	USE	S
per0225048a	1202042690	CWW	2/26/2010 0:07	952999	VARIOUS	1	LANL	USE	S
per0225049a	246735001	CWW	2/26/2010 0:15	952999	10-1743	1	LANL	USE	S
per0225050a	246735002	CWW	2/26/2010 0:23	952999	10-1743	1	LANL	USE	S
per0225051a	1202042688	CWW	2/26/2010 0:30	952999	10-1743	1	LANL	USE	S
per0225052a	1202042689	CWW	2/26/2010 0:38	952999	10-1743	1	LANL	USE	S
per0225053a	246735003	CWW	2/26/2010 0:45	952999	10-1743	1	LANL	USE	S
per0225054a	246735004	CWW	2/26/2010 0:53	952999	10-1743	1	LANL	USE	S
per0225055a	WCLCCV	CWW	2/26/2010 1:00			1		USE	C
per0225056a	IPB007	CWW	2/26/2010 1:08			1		USE	B
per0225057a	WCLCRI	CWW	2/26/2010 1:15			1		USE	C
per0225058a	246735005	CWW	2/26/2010 1:23	952999	10-1743	1	LANL	USE	S
per0225059a	246752002	CWW	2/26/2010 1:31	952999	10-1745	1	LANL	USE	S
per0225060a	246752003	CWW	2/26/2010 1:38	952999	10-1745	1	LANL	USE	S
per0225061a	246837001	CWW	2/26/2010 1:46	952999	10-1747	1	LANL	USE	S
per0225062a	246837002	CWW	2/26/2010 1:53	952999	10-1747	1	LANL	USE	S
per0225063a	246837003	CWW	2/26/2010 2:01	952999	10-1747	1	LANL	USE	S
per0225064a	246837004	CWW	2/26/2010 2:08	952999	10-1747	1	LANL	USE	S
per0225065a	246837005	CWW	2/26/2010 2:16	952999	10-1747	1	LANL	USE	S
per0225066a	WCLCCV	CWW	2/26/2010 2:23			1		USE	C

per0225067a	IPB008	CWW	2/26/2010 2:31			1		USE	B
per0225068a	WCLCRI	CWW	2/26/2010 2:39			1		USE	C
per0225069a	246837006	CWW	2/26/2010 2:46	952999	10-1747	1	LANL	DUSE_RA	S
per0225070a	246841001	CWW	2/26/2010 2:54	952999	10-1748	1	LANL	DUSE_RA	S
per0225071a	246841002	CWW	2/26/2010 3:02	952999	10-1748	1	LANL	DUSE_RA	S
per0225072a	246841003	CWW	2/26/2010 3:09	952999	10-1748	1	LANL	DUSE_RA	S
per0225073a	246843002	CWW	2/26/2010 3:17	952999	10-1749	1	LANL	DUSE_RA	S
per0225074a	246843003	CWW	2/26/2010 3:24	952999	10-1749	1	LANL	DUSE_RA	S
per0225075a	246843004	CWW	2/26/2010 3:32	952999	10-1749	1	LANL	DUSE_RA	S
per0225076a	WCLCCV	CWW	2/26/2010 3:39			1		DUSE	C
per0225077a	IPB009	CWW	2/26/2010 3:47			1		DUSE	B

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/26/10
Extr. Injection Volume: 20uL
Sequence Number: per022610a
Initial Calibration Date: 02/26/10

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

Reviewed BY: [illegible]
Date: 02/28/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100219-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0226001a	IPB001	CWW	2/26/2010 14:22			1		USE	B
per0226002a	IPB001	CWW	2/26/2010 14:30			1		USE	B
per0226003a	WCLICAL-01	CWW	2/26/2010 14:37			1		USE	I
per0226004a	WCLICAL-02	CWW	2/26/2010 14:45			1		USE	I
per0226005a	WCLICAL-03	CWW	2/26/2010 14:52			1		USE	I
per0226006a	WCLICAL-04	CWW	2/26/2010 15:00			1		USE	I
per0226007a	WCLICAL-05	CWW	2/26/2010 15:08			1		USE	I
per0226008a	IPB002	CWW	2/26/2010 15:15			1		USE	B
per0226009a	WCLICV	CWW	2/26/2010 15:23			1		USE	C
per0226010a	IPB003	CWW	2/26/2010 15:30			1		USE	B
per0226011a	WCLCRI	CWW	2/26/2010 15:38			1		USE	C
per0226012a	246837006	CWW	2/26/2010 15:45	952999	10-1747	1	LANL	USE	S
per0226013a	246841001	CWW	2/26/2010 15:53	952999	10-1748	1	LANL	USE	S
per0226014a	246841002	CWW	2/26/2010 16:00	952999	10-1748	1	LANL	USE	S
per0226015a	246841003	CWW	2/26/2010 16:08	952999	10-1748	1	LANL	USE	S
per0226016a	246843002	CWW	2/26/2010 16:15	952999	10-1749	1	LANL	USE	S
per0226017a	246843003	CWW	2/26/2010 16:23	952999	10-1749	1	LANL	USE	S
per0226018a	246843004	CWW	2/26/2010 16:30	952999	10-1749	1	LANL	USE	S
per0226019a	WCLCCV	CWW	2/26/2010 16:38			1		USE	C
per0226020a	IPB004	CWW	2/26/2010 16:46			1		USE	B
per0226021a	WCLCRI	CWW	2/26/2010 16:53			1		USE	C
per0226022a	1202035665	CWW	2/26/2010 17:01	950075	10-1544	1	LANL	USE	S
per0226023a	1202035666	CWW	2/26/2010 17:08	950075	10-1544	1	LANL	USE	S
per0226024a	1202035669	CWW	2/26/2010 17:16	950075	10-1544	1	LANL	USE	S
per0226025a	246070001	CWW	2/26/2010 17:23	950075	10-1544	1	LANL	USE	S
per0226026a	1202035667	CWW	2/26/2010 17:31	950075	10-1544	1	LANL	USE	S
per0226027a	1202035668	CWW	2/26/2010 17:38	950075	10-1544	1	LANL	USE	S
per0226028a	246070002	CWW	2/26/2010 17:46	950075	10-1544	1	LANL	USE	S
per0226029a	246070003	CWW	2/26/2010 17:53	950075	10-1544	1	LANL	USE	S

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per0226030a	246070004	CWW	2/26/2010 18:01	950075	10-1544	1	LANL	USE	S
per0226031a	WCLCCV	CWW	2/26/2010 18:09			1		USE	C
per0226032a	IPB005	CWW	2/26/2010 18:16			1		USE	B
per0226033a	WCLCRI	CWW	2/26/2010 18:24			1		USE	C
per0226034a	246070005	CWW	2/26/2010 18:31	950075	10-1544	1	LANL	USE	S
per0226035a	246070006	CWW	2/26/2010 18:39	950075	10-1544	1	LANL	USE	S
per0226036a	246070007	CWW	2/26/2010 18:46	950075	10-1544	1	LANL	USE	S
per0226037a	246070008	CWW	2/26/2010 18:54	950075	10-1544	1	LANL	USE	S
per0226038a	246070009	CWW	2/26/2010 19:01	950075	10-1544	1	LANL	USE	S
per0226039a	246070010	CWW	2/26/2010 19:09	950075	10-1544	1	LANL	USE	S
per0226040a	246070011	CWW	2/26/2010 19:16	950075	10-1544	1	LANL	USE	S
per0226041a	246070012	CWW	2/26/2010 19:24	950075	10-1544	1	LANL	USE	S
per0226042a	WCLCCV	CWW	2/26/2010 19:32			1		USE	C
per0226043a	IPB006	CWW	2/26/2010 19:39			1		USE	B
per0226044a	WCLCRI	CWW	2/26/2010 19:47			1		USE	C
per0226045a	246070013	CWW	2/26/2010 19:54	950075	10-1544	1	LANL	USE	S
per0226046a	246070014	CWW	2/26/2010 20:02	950075	10-1544	1	LANL	USE	S
per0226047a	246070015	CWW	2/26/2010 20:09	950075	10-1544	1	LANL	USE	S
per0226048a	246070016	CWW	2/26/2010 20:17	950075	10-1544	1	LANL	USE	S
per0226049a	246070017	CWW	2/26/2010 20:24	950075	10-1544	1	LANL	USE	S
per0226050a	246070018	CWW	2/26/2010 20:32	950075	10-1544	1	LANL	USE	S
per0226051a	246070019	CWW	2/26/2010 20:40	950075	10-1544	1	LANL	USE	S
per0226052a	246070020	CWW	2/26/2010 20:47	950075	10-1544	1	LANL	USE	S
per0226053a	WCLCCV	CWW	2/26/2010 20:55			1		USE	C
per0226054a	IPB007	CWW	2/26/2010 21:02			1		USE	B
per0226055a	WCLCRI	CWW	2/26/2010 21:10			1		USE	C
per0226056a	1202054192	CWW	2/26/2010 21:17	957926	WP10-1	1	LANL	DUSE-RE	S
per0226057a	1202054194	CWW	2/26/2010 21:25	957926	WP10-1	1	LANL	DUSE-RE	S
per0226058a	247883002	CWW	2/26/2010 21:33	957926	WP10-1	50	LANL	DUSE-RE	S
per0226059a	1202054193	CWW	2/26/2010 21:40	957926	WP10-1	50	LANL	DUSE-RE	S
per0226060a	WCLCCV	CWW	2/26/2010 21:48			1		USE	C
per0226061a	IPB008	CWW	2/26/2010 21:55			1		USE	B
per0226062a	WCLCRI	CWW	2/26/2010 22:03			1		USE	C
per0226063a	1202042691	CWW	2/26/2010 22:11	953002	VARIOUS	1	LANL	USE	S
per0226064a	1202042692	CWW	2/26/2010 22:18	953002	VARIOUS	1	LANL	USE	S
per0226065a	1202042695	CWW	2/26/2010 22:26	953002	VARIOUS	1	LANL	USE	S
per0226066a	246846001	CWW	2/26/2010 22:33	953002	10-1750	1	LANL	USE	S

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per0226067a	246846002	CWW	2/26/2010 22:41	953002	10-1750	1	LANL	USE	S
per0226068a	246847001	CWW	2/26/2010 22:48	953002	10-1751	1	LANL	USE	S
per0226069a	246847002	CWW	2/26/2010 22:56	953002	10-1751	1	LANL	USE	S
per0226070a	246854001	CWW	2/26/2010 23:03	953002	10-1753-1	1	LANL	USE	S
per0226071a	1202042693	CWW	2/26/2010 23:11	953002	10-1753-1	1	LANL	USE	S
per0226072a	1202042694	CWW	2/26/2010 23:19	953002	10-1753-1	1	LANL	USE	S
per0226073a	WCLCCV	CWW	2/26/2010 23:26			1		USE	C
per0226074a	IPB009	CWW	2/26/2010 23:34			1		USE	B
per0226075a	WCLCRI	CWW	2/26/2010 23:41			1		USE	C
per0226076a	246854002	CWW	2/26/2010 23:49	953002	10-1753-1	1	LANL	USE	S
per0226077a	246854003	CWW	2/26/2010 23:57	953002	10-1753-1	1	LANL	USE	S
per0226078a	246854004	CWW	2/27/2010 0:04	953002	10-1753-1	1	LANL	USE	S
per0226079a	246854005	CWW	2/27/2010 0:12	953002	10-1753-1	1	LANL	USE	S
per0226080a	246854006	CWW	2/27/2010 0:19	953002	10-1753-1	1	LANL	USE	S
per0226081a	246854007	CWW	2/27/2010 0:27	953002	10-1753-1	1	LANL	USE	S
per0226082a	246854008	CWW	2/27/2010 0:34	953002	10-1753-1	1	LANL	USE	S
per0226083a	246854009	CWW	2/27/2010 0:42	953002	10-1753-1	1	LANL	USE	S
per0226084a	246854010	CWW	2/27/2010 0:49	953002	10-1753-1	1	LANL	USE	S
per0226085a	246854011	CWW	2/27/2010 0:57	953002	10-1753-1	1	LANL	USE	S
per0226086a	WCLCCV	CWW	2/27/2010 1:05			1		USE	C
per0226087a	IPB010	CWW	2/27/2010 1:12			1		USE	B
per0226088a	WCLCRI	CWW	2/27/2010 1:20			1		USE	C

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson
Page 51 of 77

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

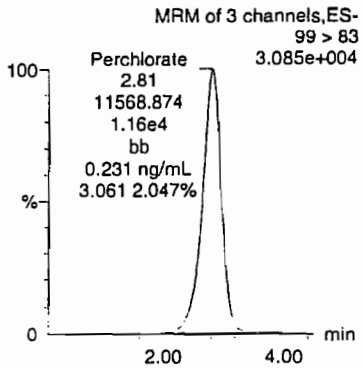
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225051a
Date: 26-Feb-2010
Time: 00:30:32
ID: 1202042688
Vial: 2:1,F

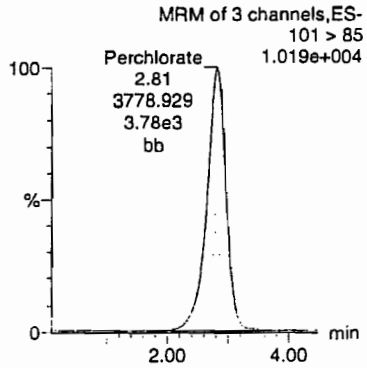
|LANL | 952999 | SOLID |MS|1

02-26-10

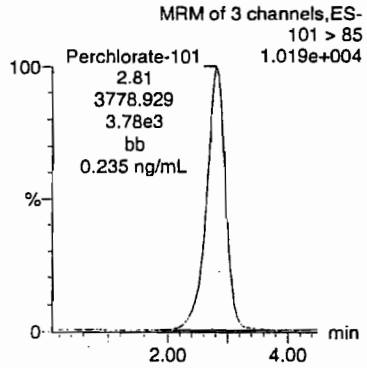
Perchlorate



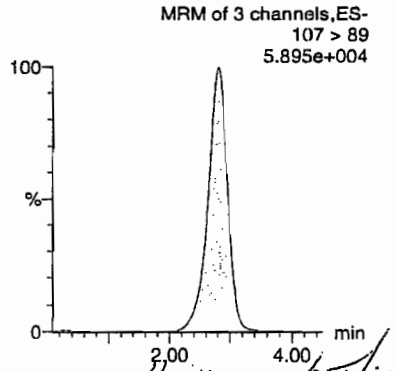
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202042688	Perchlorate	99 > 83	2.81	11568.874	11568.874	bb			0.2307	115.37	15.37	6882.8...	3.06
1202042688	Perchlorate-101	101 > 85	2.81	3778.929	3778.929	bb			0.2349	117.44	17.44	2581.8...	
1202042688	Perchlorate-O(18)	107 > 89	2.80	22158.168	22158.168	bb			0.5241	104.82	4.82	925.775	

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

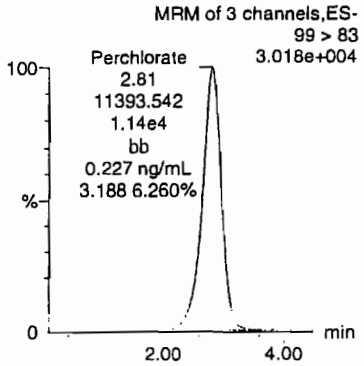
Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225052a
Date: 26-Feb-2010
Time: 00:38:03
ID: 1202042689
Vial: 2:2,A

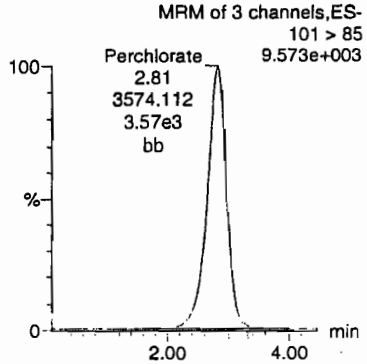
| LANL | 952999 | 50120 | MED | 1

WJ 02-26-10

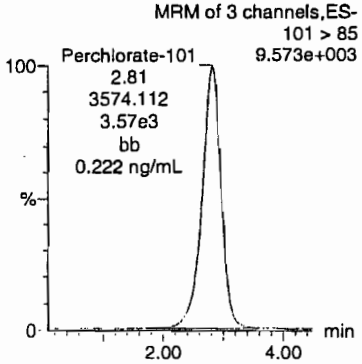
Perchlorate



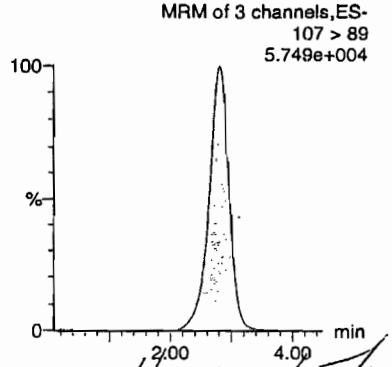
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202042689	Perchlorate	99 > 83	2.81	11393.542	11393.542	bb			0.2272	113.62	13.62	2844.8...	3.19
1202042689	Perchlorate-101	101 > 85	2.81	3574.112	3574.112	bb			0.2221	111.07	11.07	1995.7...	
1202042689	Perchlorate-O(18)	107 > 89	2.80	21632.453	21632.453	bb			0.5116	102.33	2.33	8408.6...	

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

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

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

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1747-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	952836
Prep Batch Number:	952834

Sample Analysis

Sample ID	Client ID
246838001	RE15-10-8085
1202042256	Interference Check Sample (ICS)
1202042252	Method Blank (MB)
1202042253	Laboratory Control Sample (LCS)
1202042254	246571001(RE46-10-11505) Matrix Spike (MS)
1202042255	246571001(RE46-10-11505) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

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

Calibration Information

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

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

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

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

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

Quality Control (QC) Information

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

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
A laboratory control sample duplicate (LCSD) was not extracted.

LCS/LCSD Relative Percent Difference (RPD) Statement
A laboratory control sample duplicate (LCSD) was not extracted.

QC Sample Designation
Client sample 246571001 (RE46-10-11505) from SDG 10-1673-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

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

Miscellaneous Information

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

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

Method Comments
The sample in this SDG was not originally analyzed using EPA Method 314.0.

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

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

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

System Configuration

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

Chromatographic Columns

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

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Herbert M Maier **Date:** 02/27/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 952834

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8085

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747-1

GEL Sample ID: 246838001

Date Filtered: 13-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-FEB-10 14:29	per0213107a
	Perchlorate Isotope Ratio						1	14-FEB-10 14:29	per0213107a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-FEB-10 14:29	per0213107a
	Perchlorate-O(18)			0.470	ug/L		1	14-FEB-10 14:29	per0213107a

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

*Concentration =

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

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1747-1

Extract Batch Code: 952834

Date Filtered: 13-FEB-10

Matrix: WATER

Sample ID: 1202042253

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.214	ug/L	107		85 - 115
Perchlorate Isotope Ratio		3.36				-
Perchlorate-101	0.200	.199	ug/L	99.4		85 - 115
Perchlorate-O(18)		.491	ug/L			-

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

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEI

GEL Job No. (SDG): 10-1747-1

Extract Batch Code: 952834

Date Filtered: 13-FEB-10

Matrix: WATER

Sample ID: 1202042256

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.202	ug/L	101		70 - 130
Perchlorate Isotope Ratio		3.11				
Perchlorate-101	0.200	.203	ug/L	101		70 - 130
Perchlorate-O(18)		.467	ug/L			

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

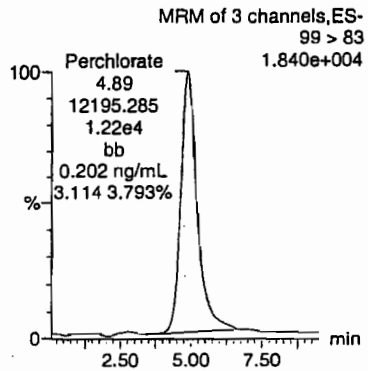
Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213081a
Date: 14-Feb-2010
Time: 09:03:11
ID: 1202042256
Vial: 3:1,C

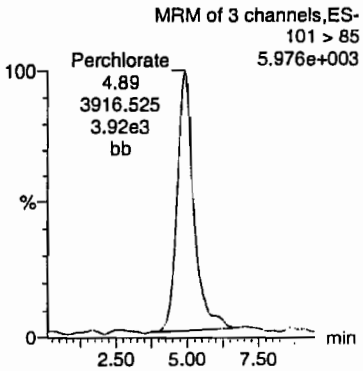
|LANL|952836|LCQ|IC5|1|

WJ 02-15-10

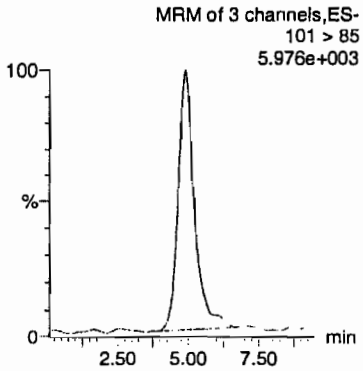
Perchlorate



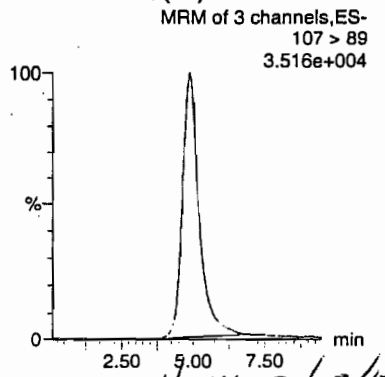
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HNM 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202042256	Perchlorate	99 > 83	4.89	12195.285	12195.285	bb			0.2016	100.80	0.80	451.544	3.11
1202042256	Perchlorate-101	101 > 85	4.89	3916.525	3916.525	bb			0.2026	101.30	1.30	273.262	
1202042256	Perchlorate-O(18)	107 > 89	4.86	24066.906	24066.906	bb			0.4669	93.38	-6.62	1238.1...	

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

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1747-1

Extract Batch Code: 952834

Date Extracted: 13-FEB-10

GEL MS/PS ID: 1202042254

Client ID: RE46-10-11505

GEL MSD/PSD ID: 1202042255

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00	ug/L	0.198	99.1	.191	95.4	3.76	30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.23		3.3		0		-
Perchlorate-101	0.200	0.00	ug/L	0.192	95.9	.181	90.5	5.83	30	75 - 125
Perchlorate-O(18)	0	0.456	ug/L	0.455		.453		.394		-

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

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	13-FEB-10	per0213001a	IPB001
Perchlorate-101	0.00	0	NA	13-FEB-10	per0213001a	IPB001
Perchlorate	0.00	0	NA	13-FEB-10	per0213002a	IPB001
Perchlorate-101	0.00	0	NA	13-FEB-10	per0213002a	IPB001

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

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

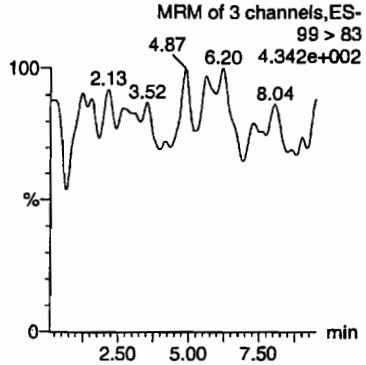
Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021310a.mdb 14 Feb 2010 16:01:32
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021310a.cdb 14 Feb 2010 16:01:52

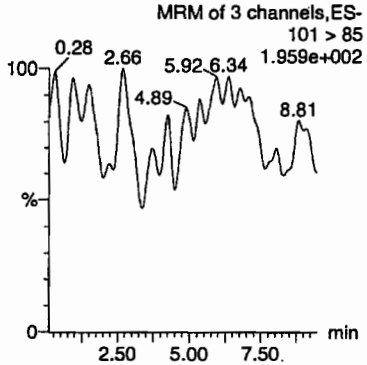
Name: per0213001a
Date: 13-Feb-2010
Time: 16:18:45
ID: IPB001
Vial: 1:1,A

02-15-10

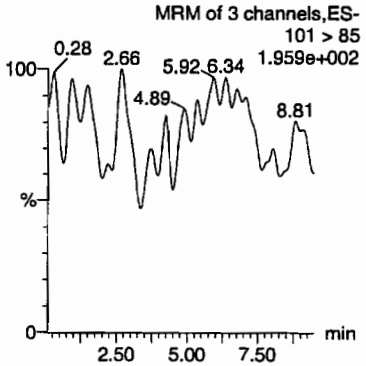
Perchlorate



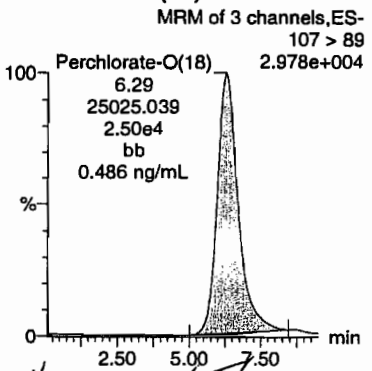
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hm m 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	6.29	25025.039	25025.039	bb			0.4855	97.10	-2.90	473.044	

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

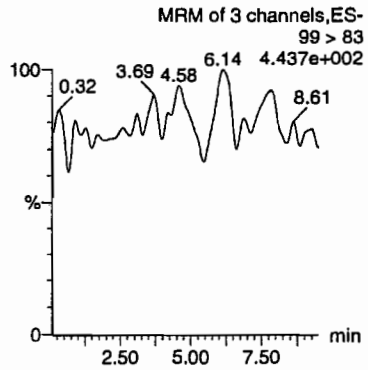
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

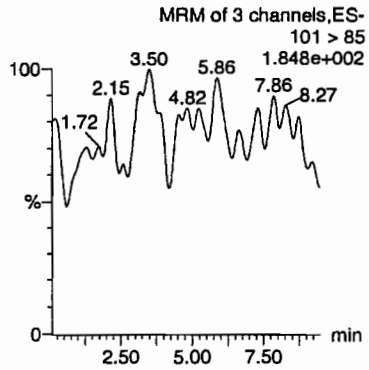
Name: per0213002a
Date: 13-Feb-2010
Time: 16:31:17
ID: IPB001
Vial: 1:1,A

CWW
02-15-10

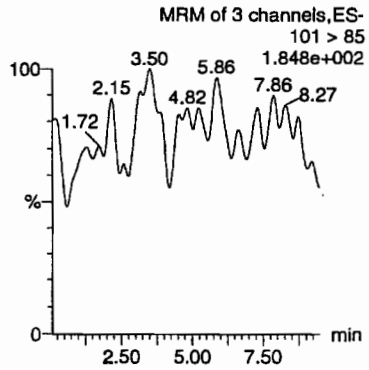
Perchlorate



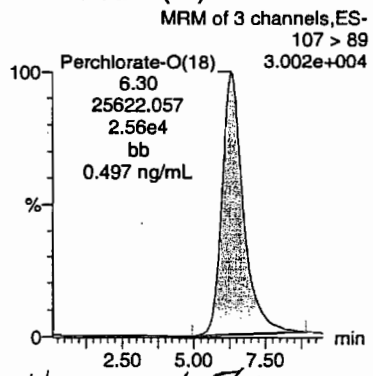
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	6.30	25622.057	25622.057	bb			0.4971	99.42	-0.58	1156.9...	

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	13-FEB-10	per0213008a	IPB002
Perchlorate-101	0.00	0	NA	13-FEB-10	per0213008a	IPB002
Perchlorate	0.00	0	NA	13-FEB-10	per0213010a	IPB003
Perchlorate-101	0.00	0	NA	13-FEB-10	per0213010a	IPB003
Perchlorate	0.00	0	NA	13-FEB-10	per0213022a	IPB004
Perchlorate-101	0.00	0	NA	13-FEB-10	per0213022a	IPB004
Perchlorate	0.00	0	NA	13-FEB-10	per0213033a	IPB005
Perchlorate-101	0.00	0	NA	13-FEB-10	per0213033a	IPB005
Perchlorate	0.00	0	NA	14-FEB-10	per0213044a	IPB006
Perchlorate-101	0.00	0	NA	14-FEB-10	per0213044a	IPB006
Perchlorate	0.00	0	NA	14-FEB-10	per0213055a	IPB007
Perchlorate-101	0.00	0	NA	14-FEB-10	per0213055a	IPB007
Perchlorate	0.00	0	NA	14-FEB-10	per0213066a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	14-FEB-10	per0213066a	IPB008
Perchlorate	0.00	0	NA	14-FEB-10	per0213077a	IPB009
Perchlorate-101	0.00	0	NA	14-FEB-10	per0213077a	IPB009
Perchlorate	0.00	0	NA	14-FEB-10	per0213089a	IPB010
Perchlorate-101	0.00	0	NA	14-FEB-10	per0213089a	IPB010
Perchlorate	0.00	0	NA	14-FEB-10	per0213100a	IPB011
Perchlorate-101	0.00	0	NA	14-FEB-10	per0213100a	IPB011
Perchlorate	0.00	0	NA	14-FEB-10	per0213111a	IPB012
Perchlorate-101	0.00	0	NA	14-FEB-10	per0213111a	IPB012

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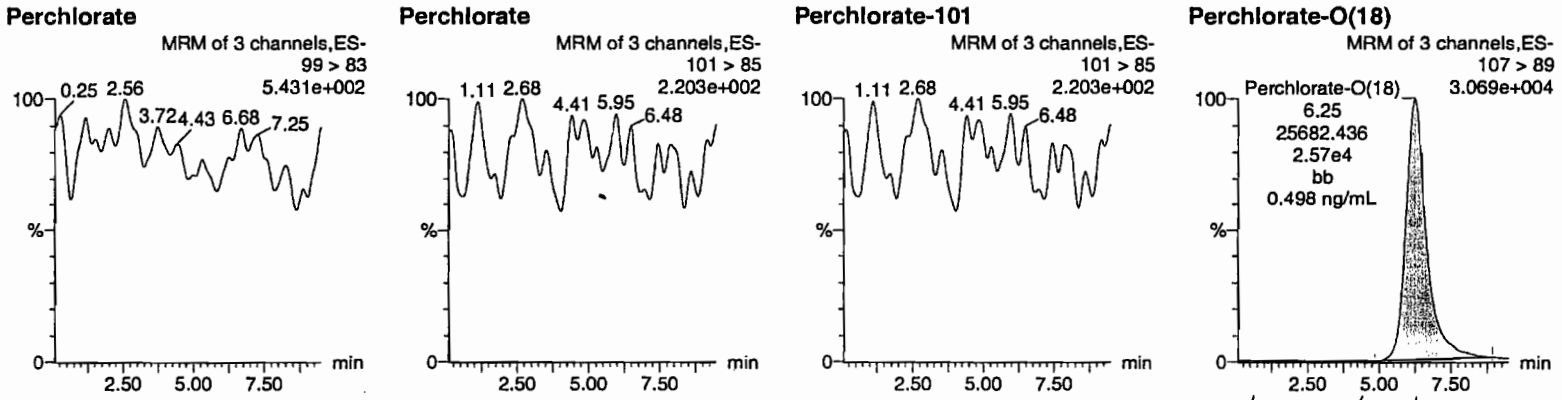
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213008a
Date: 13-Feb-2010
Time: 17:46:24
ID: IPB002
Vial: 1:1,A

CWW
02-15-10



HMK 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	6.25	25682.436	25682.436	bb			0.4983	99.65	-0.35	232.669	

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

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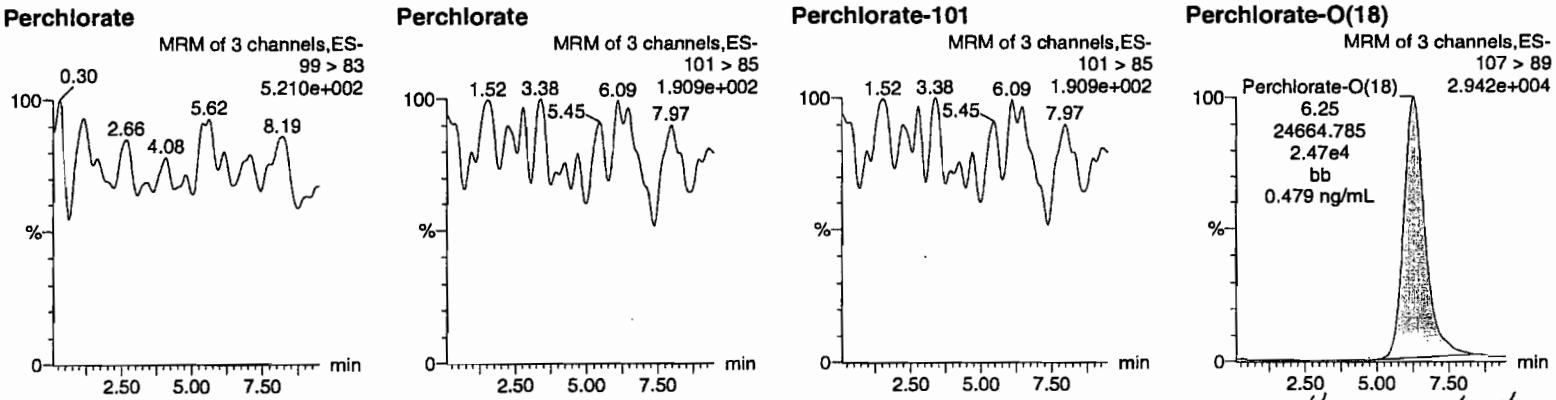
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213010a
Date: 13-Feb-2010
Time: 18:11:29
ID: IPB003
Vial: 1:1,A

CWW 02-15-10



HMM 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	6.25	24664.785	24664.785	bb			0.4785	95.70 ✓	-4.30	699.730	

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

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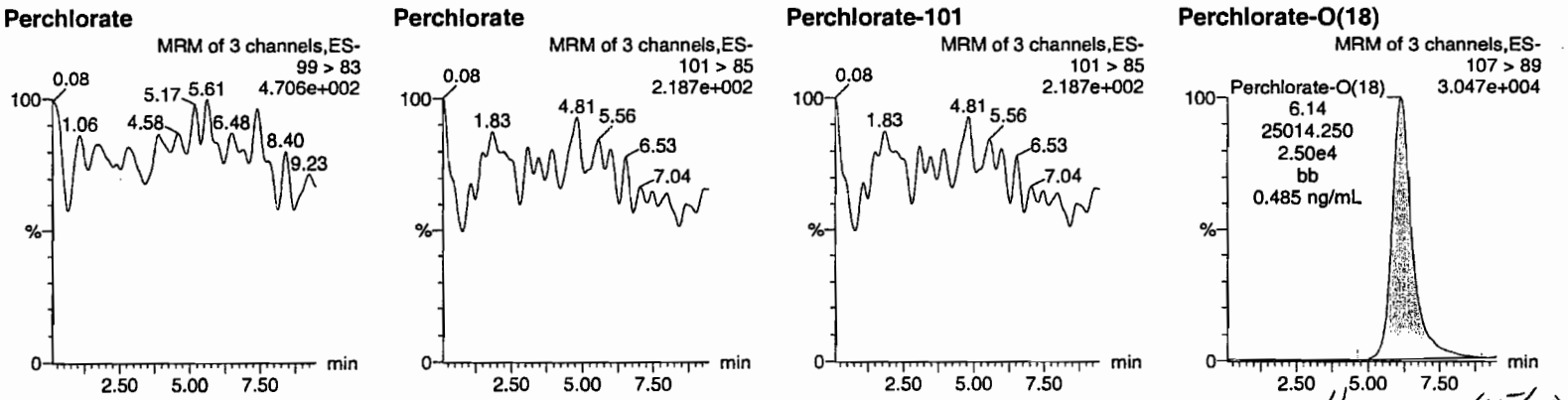
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213022a
Date: 13-Feb-2010
Time: 20:41:57
ID: IPB004
Vial: 1:1,A

02-15-10



Hume 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	6.14	25014.250	25014.250	bb			0.4853	97.06	-2.94	569.335	

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

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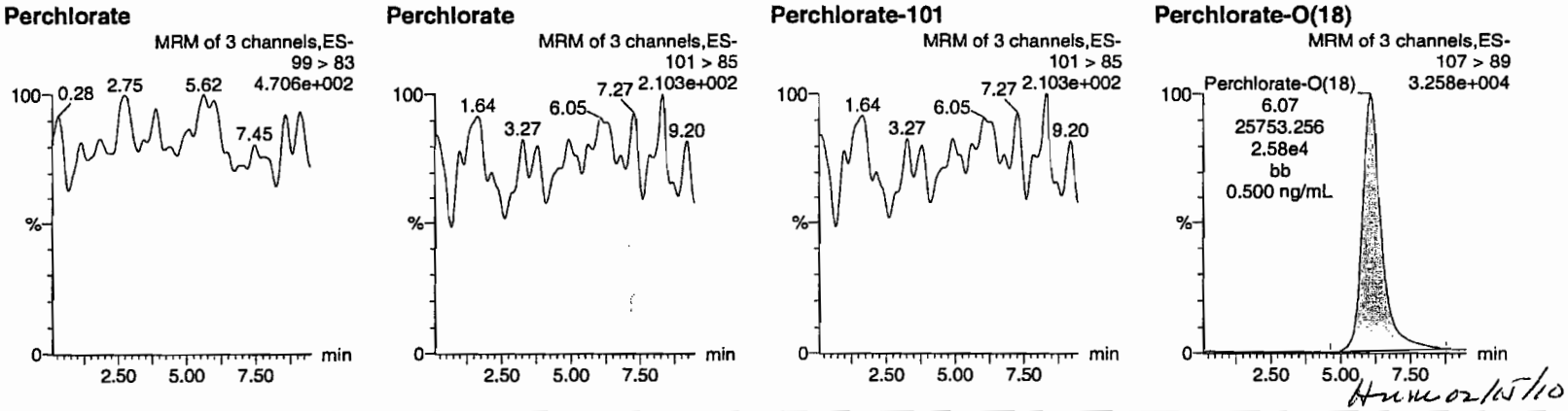
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213033a
Date: 13-Feb-2010
Time: 22:59:55
ID: IPB005
Vial: 1:1,A

CWW 02-15-10



HWW 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	6.07	25753.256	25753.256	bb			0.4996	99.93 ✓	-0.07	1685.6...	

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

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

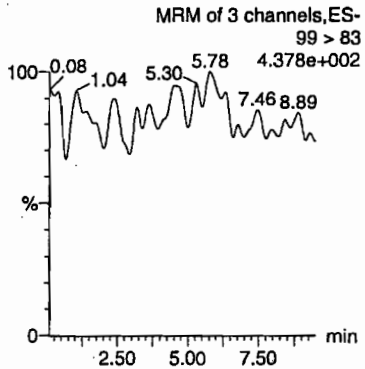
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

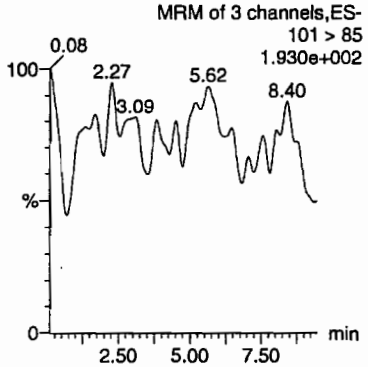
Name: per0213044a
Date: 14-Feb-2010
Time: 01:17:56
ID: IPB006
Vial: 1:1,A

02-15-10

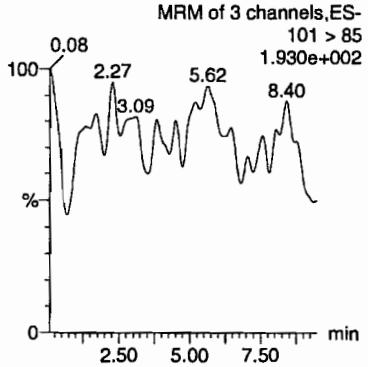
Perchlorate



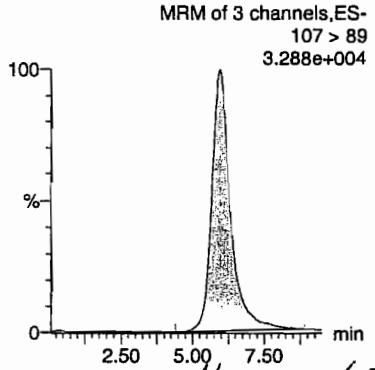
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmw 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	5.95	25317.313	25317.313	bb			0.4912	98.24	-1.76	810.346	

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

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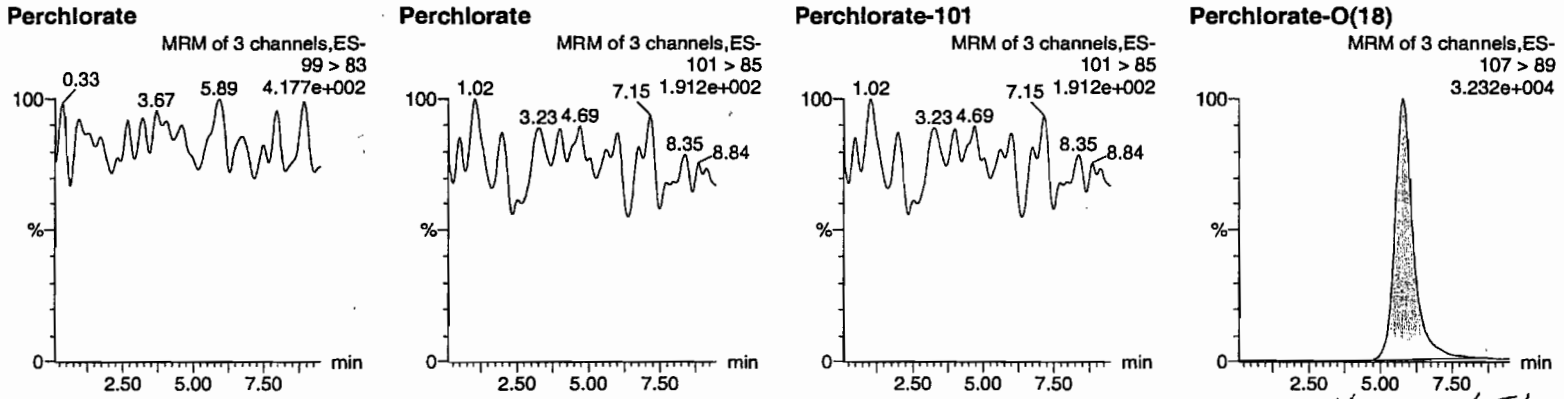
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213055a
Date: 14-Feb-2010
Time: 03:36:11
ID: IPB007
Vial: 1:1,A

CWO
02-15-10



HMM 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	5.77	24244.982	24244.982	bb			0.4704	94.07	-5.93	2034.3...	

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

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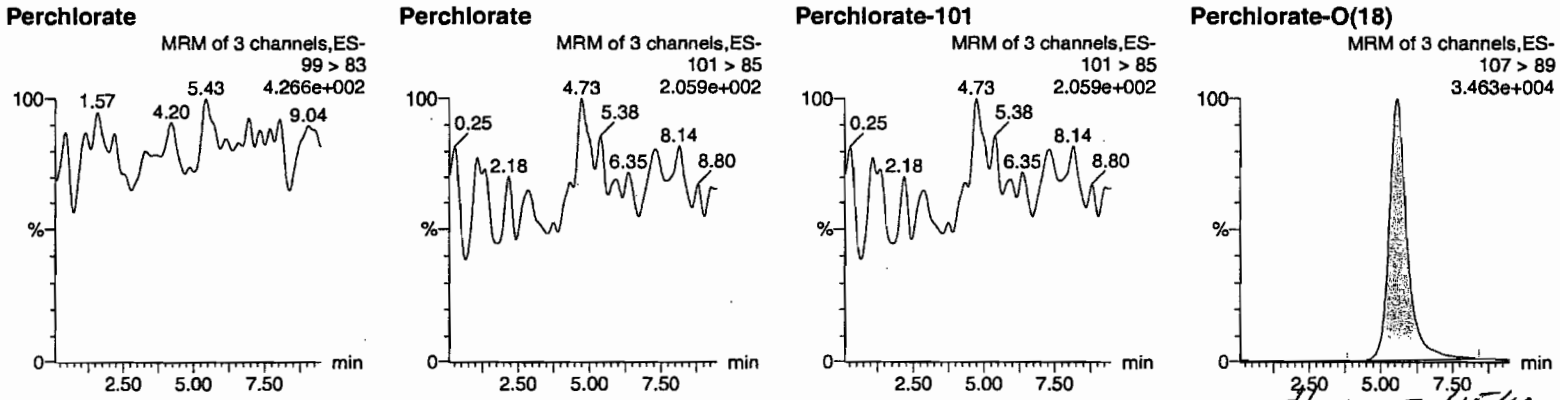
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213066a
Date: 14-Feb-2010
Time: 05:54:30
ID: IPB008
Vial: 1:1,A

3/2 02-15-10



Hmm 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	5.57	24954.354	24954.354	bb			0.4841	96.83	-3.17	1617.8...	

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

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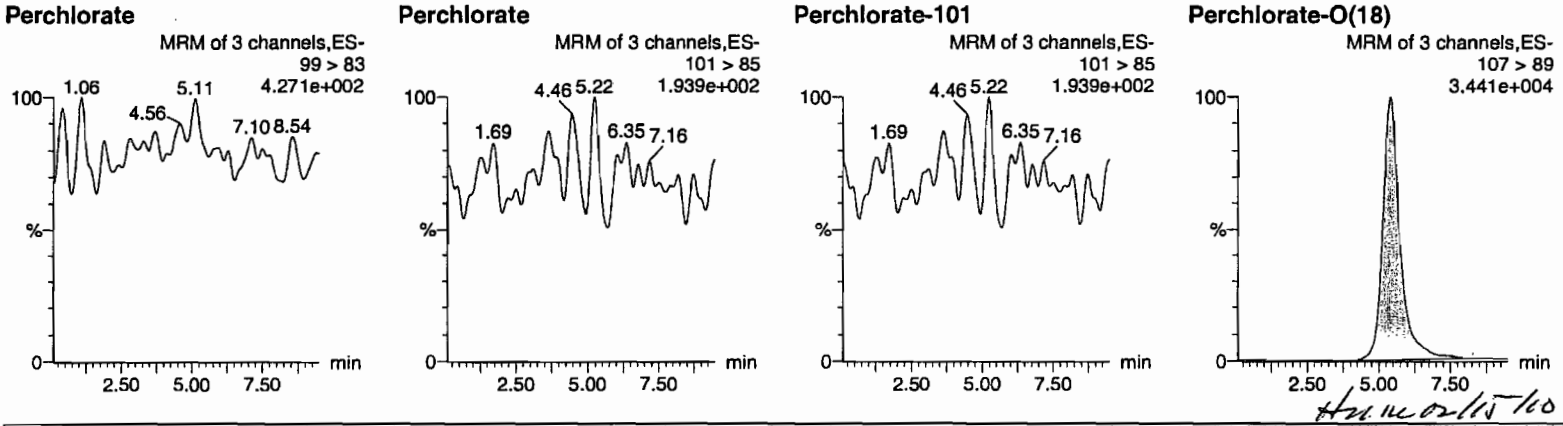
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213077a
Date: 14-Feb-2010
Time: 08:12:51
ID: IPB009
Vial: 1:1,A

CWW 02-15-10



Hmw 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	5.40	24315.143	24315.143	bb			0.4717	94.35	-5.65	599.312	

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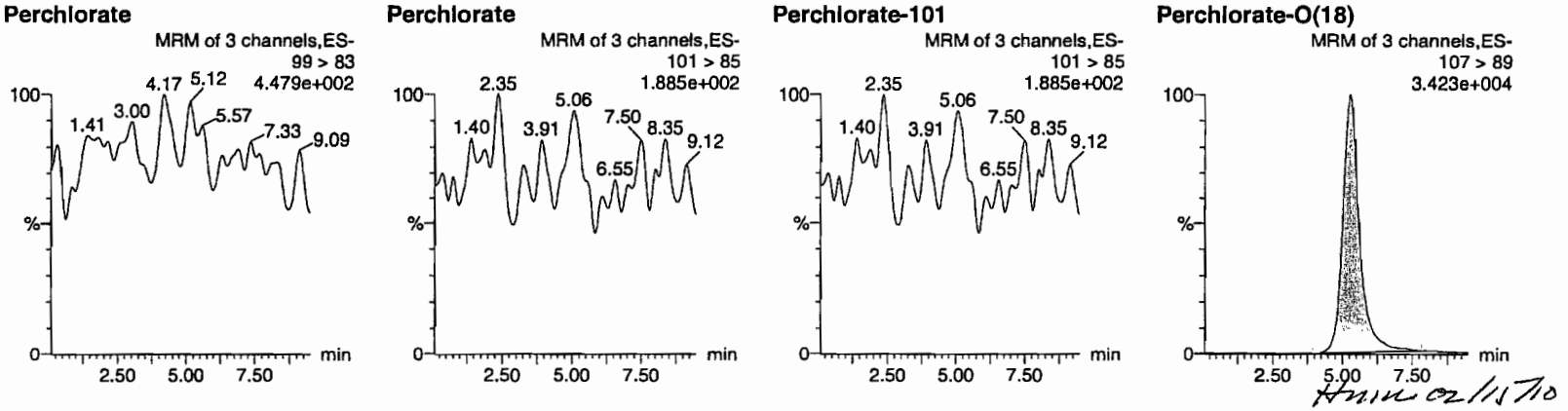
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213089a
Date: 14-Feb-2010
Time: 10:43:39
ID: IPB010
Vial: 1:1,A

02-15-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83											0.00
IPB010	Perchlorate-101	101 > 85											
IPB010	Perchlorate-O(18)	107 > 89	5.27	23848.904	23848.904	bb			0.4627	92.54	-7.46	880.960	

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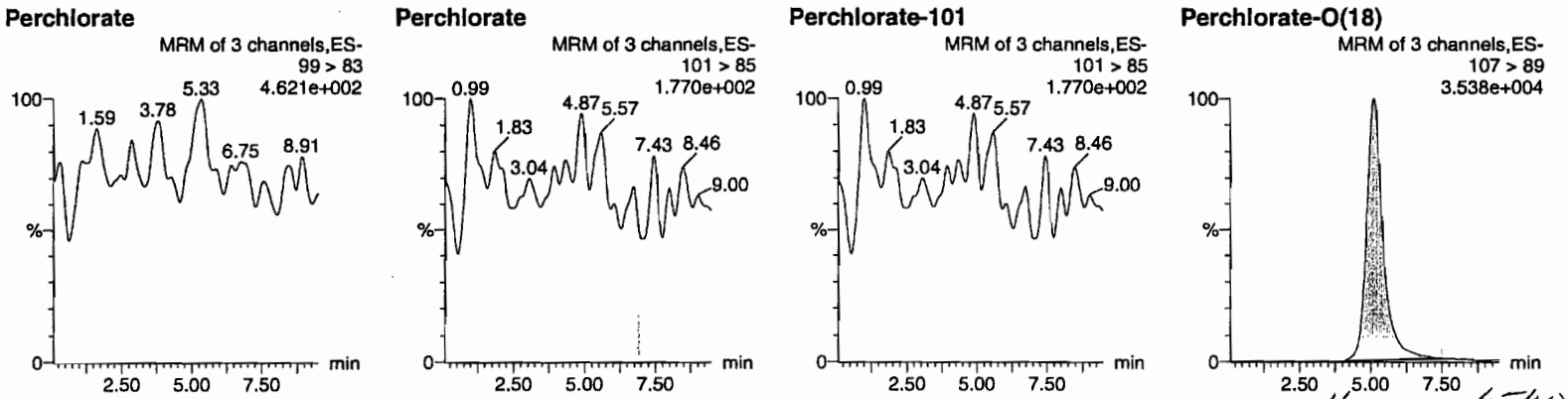
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213100a
Date: 14-Feb-2010
Time: 13:01:55
ID: IPB011
Vial: 1:1,A

CWW 02-15-10



HM 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB011	Perchlorate	99 > 83											0.00
IPB011	Perchlorate-101	101 > 85											
IPB011	Perchlorate-O(18)	107 > 89	5.10	23616.408	23616.408	bb			0.4582	91.64	-8.36	1686.5...	

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

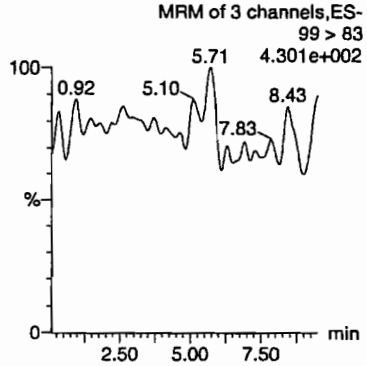
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

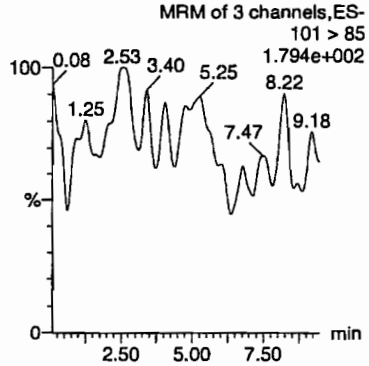
Name: per0213111a
Date: 14-Feb-2010
Time: 15:20:17
ID: IPB012
Vial: 1:1,A

02-15-10

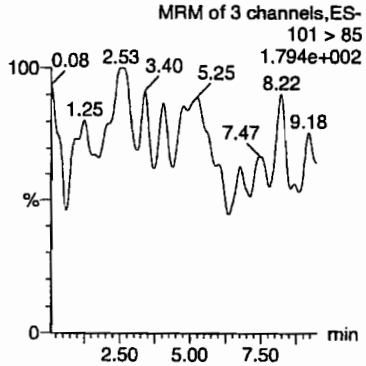
Perchlorate



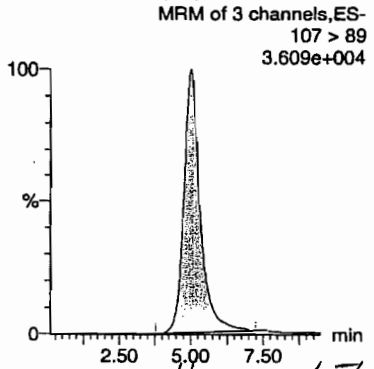
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Ammonium

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB012	Perchlorate	99 > 83											0.00
IPB012	Perchlorate-101	101 > 85											
IPB012	Perchlorate-O(18)	107 > 89	5.01	23593.783	23593.783	bb			0.4577	91.55 ✓	-8.45	871.383	

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

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Nairb.ref

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

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

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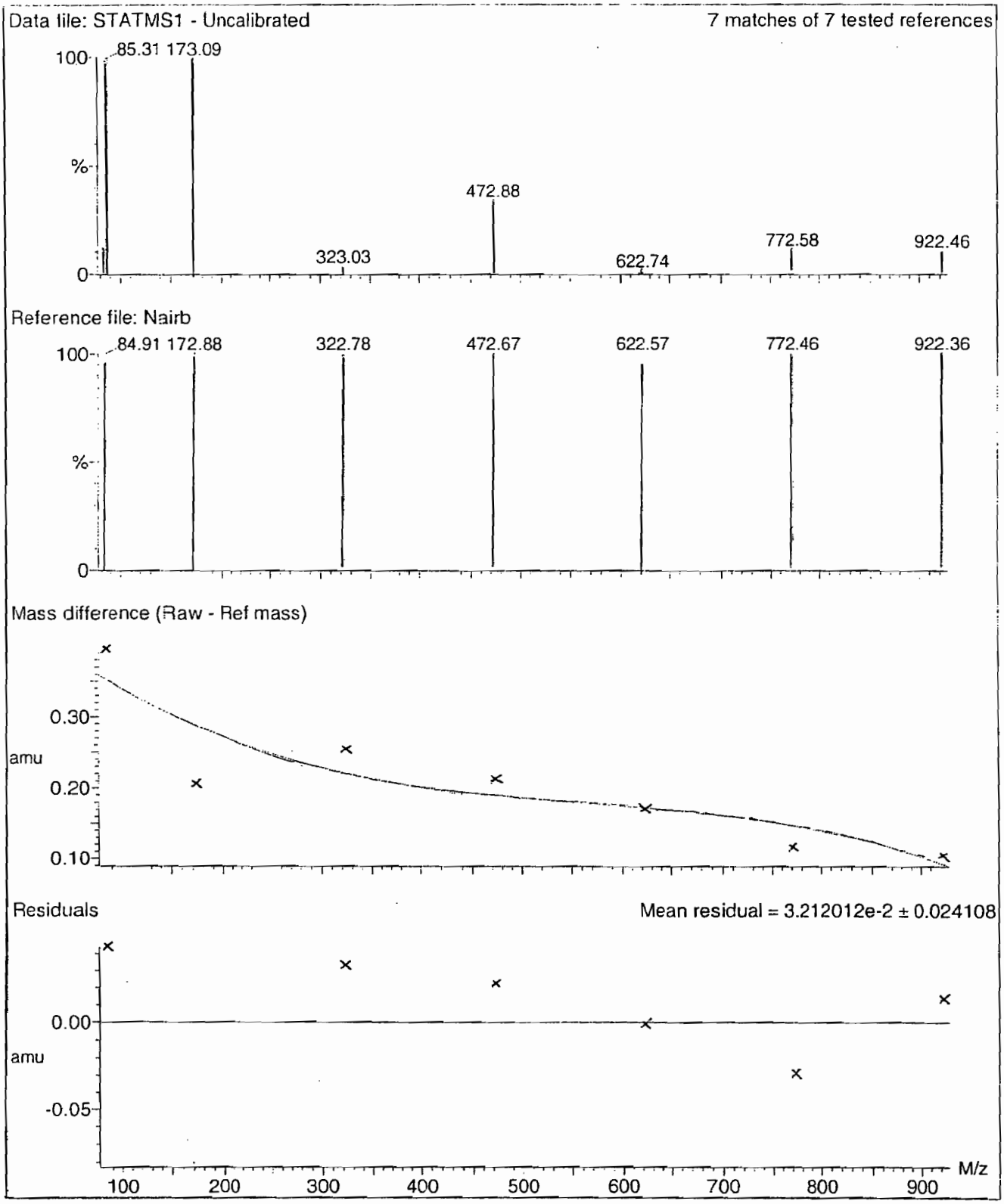
QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

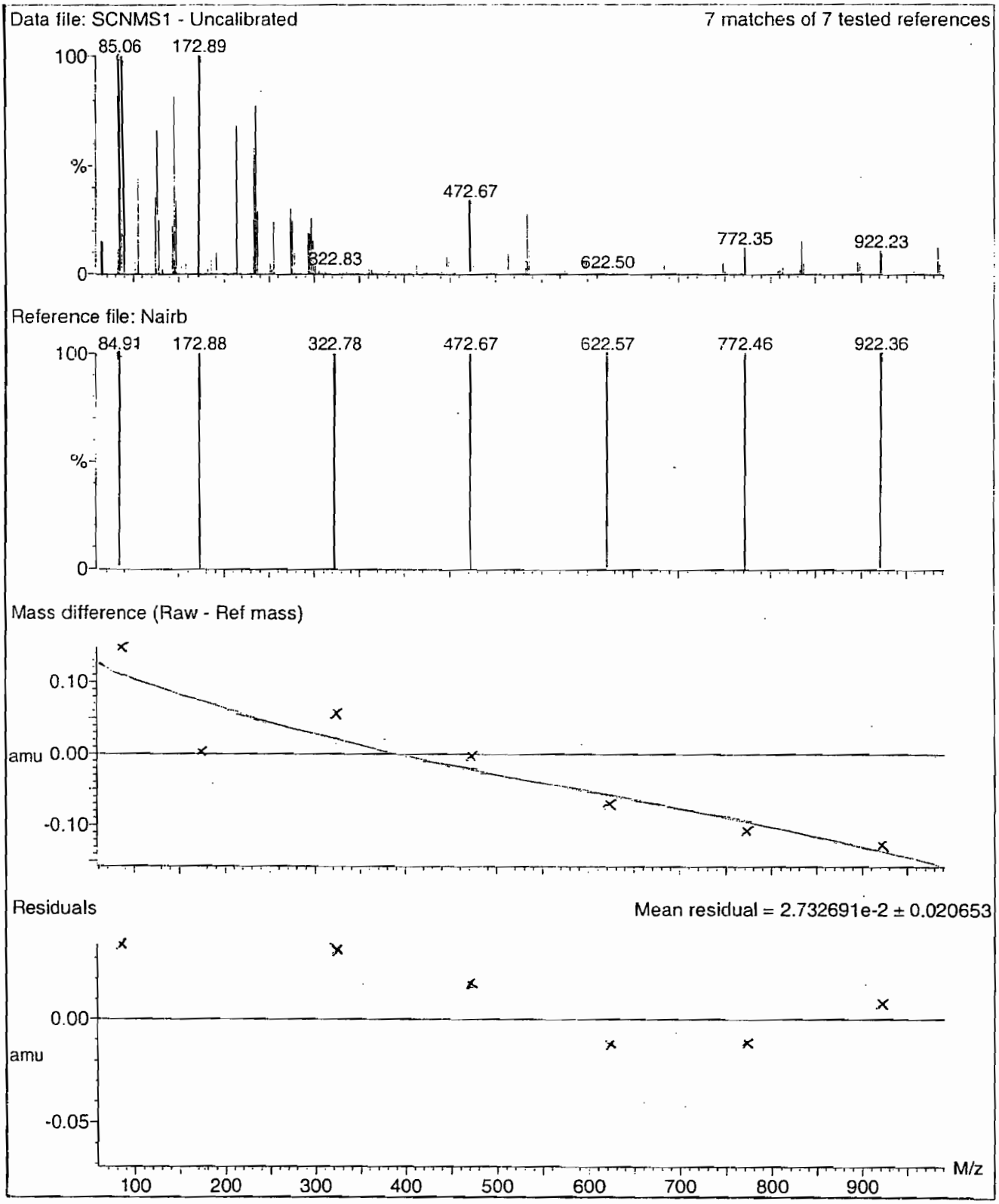
PEAKS HIGHLIGHTED BY CWJ 01-07-08



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

Calibration Report - MS1 Scanning

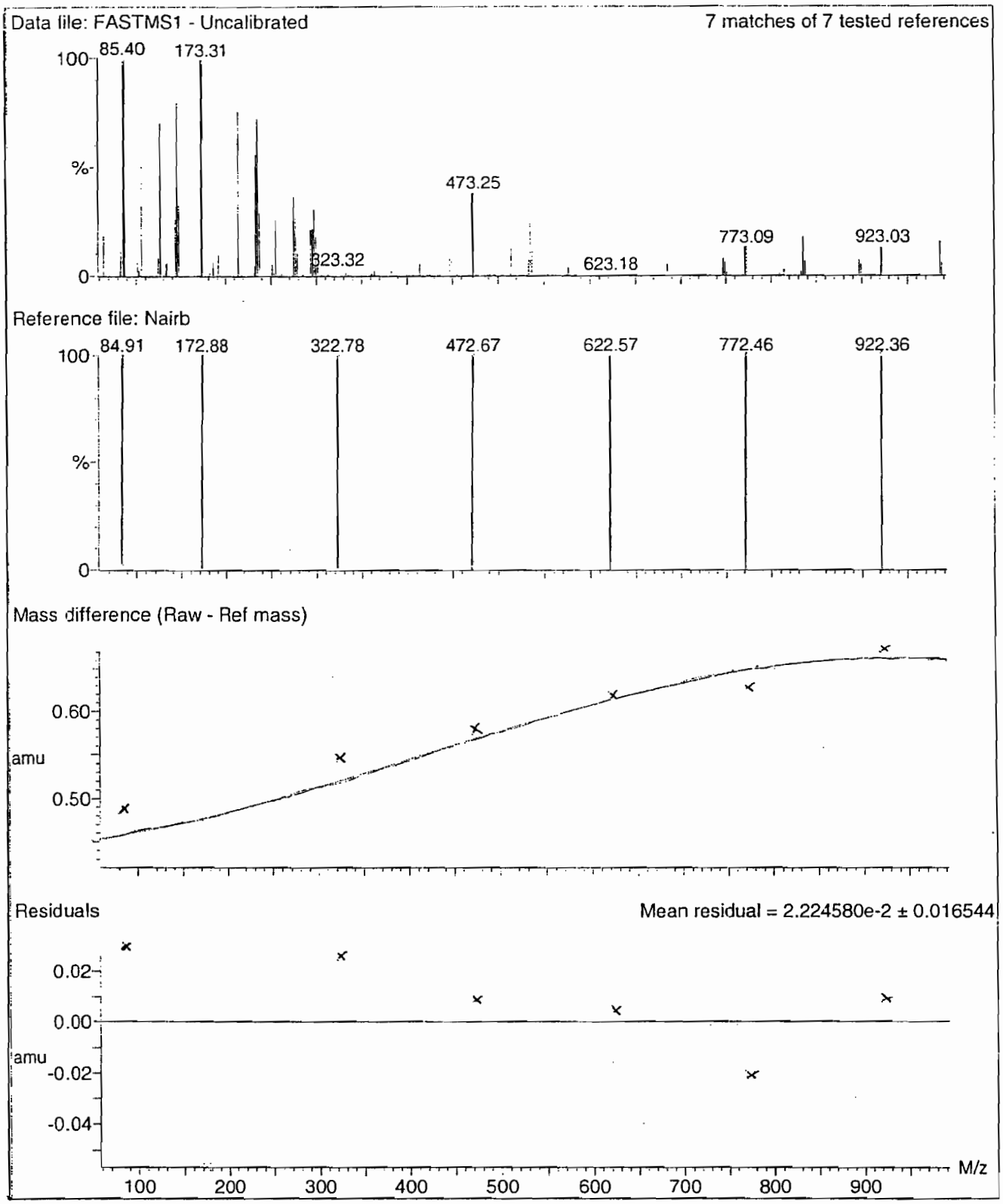
Printed: Tue Jan 08 12:20:09 2008



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

Calibration Report - MS1 Scan Speed Compensation

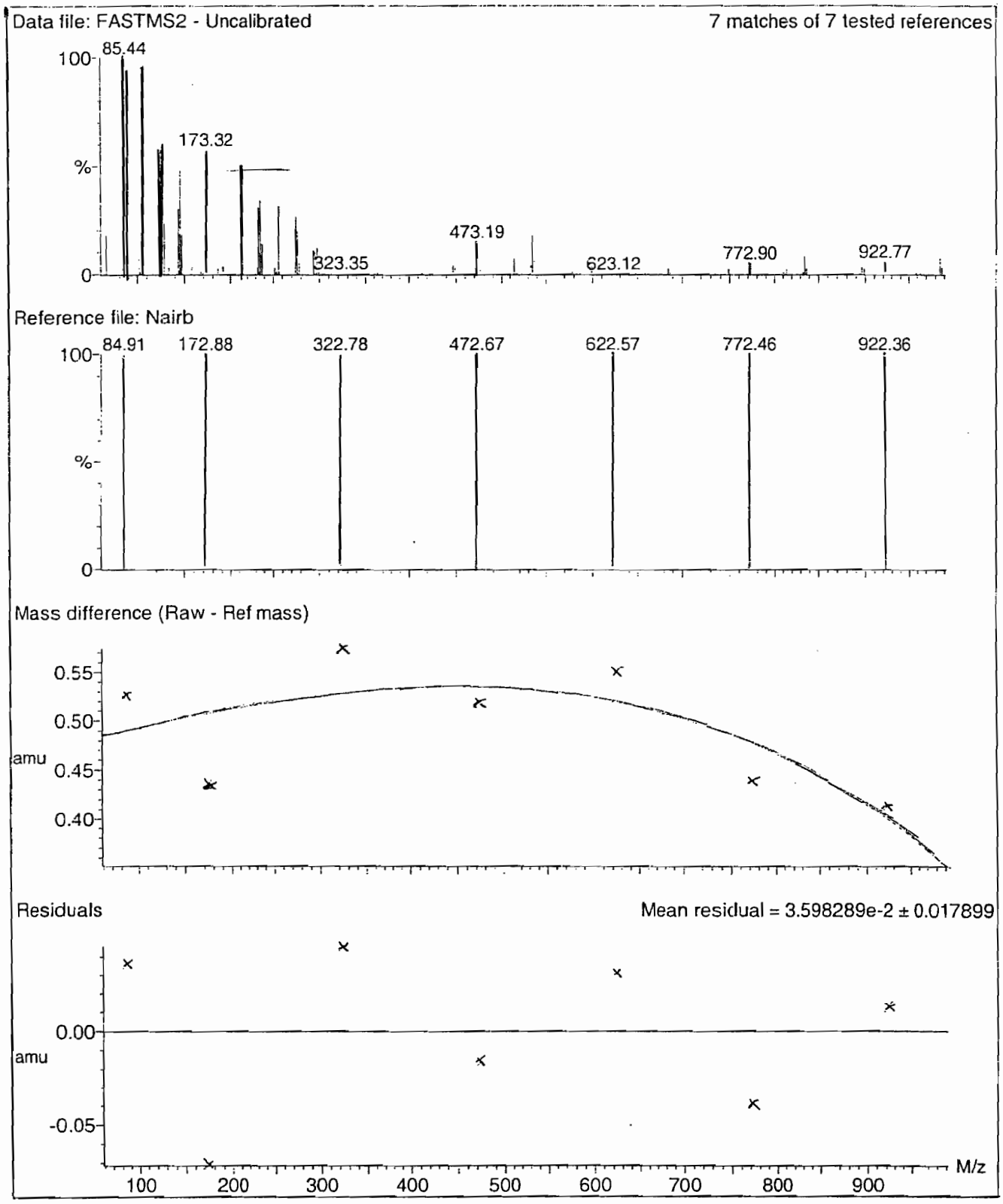
Printed: Tue Jan 08 12:21:04 2008



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

Calibration Report - MS2 Scan Speed Compensation

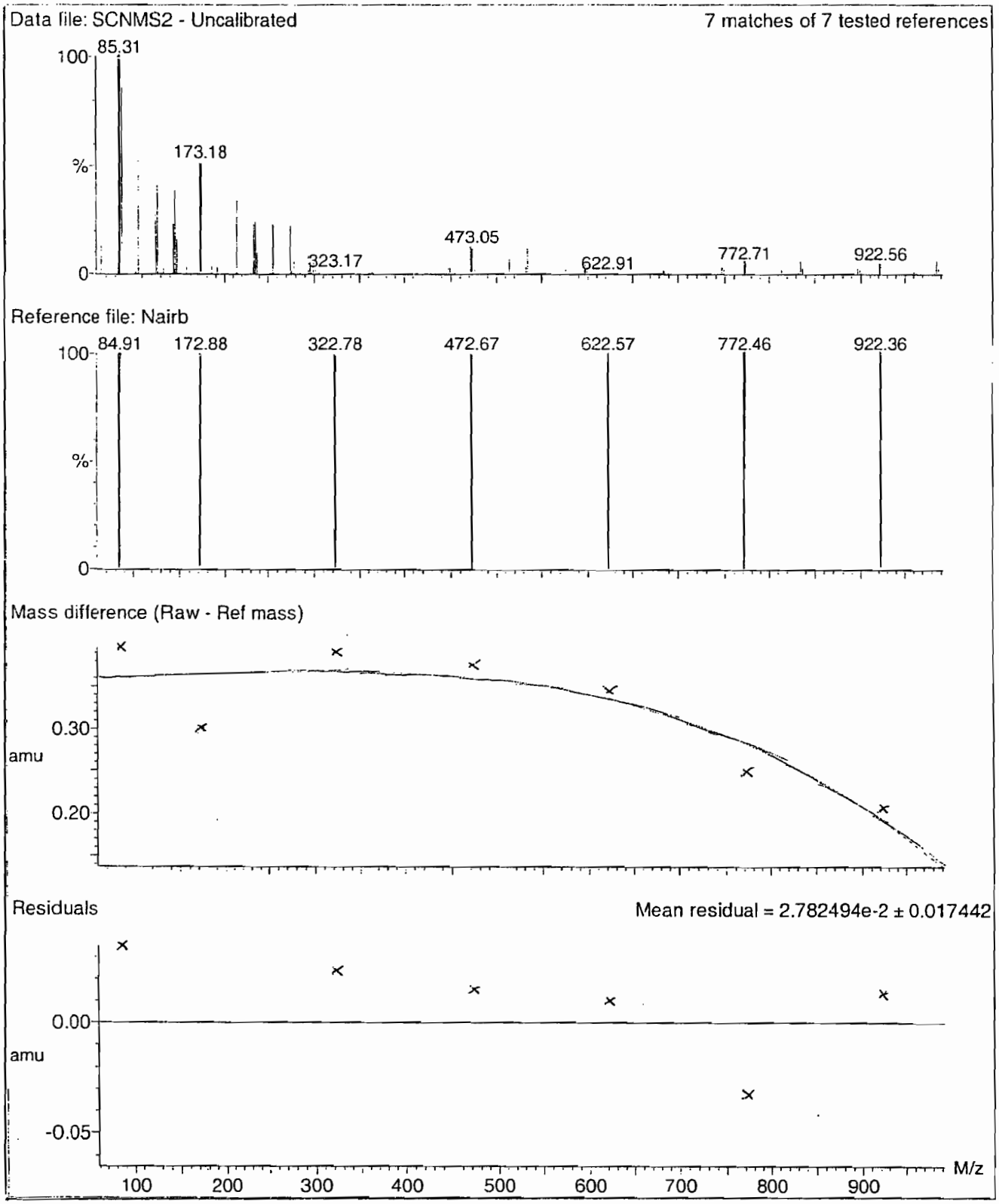
Printed: Tue Jan 08 12:23:51 2008



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

Calibration Report - MS2 Scanning

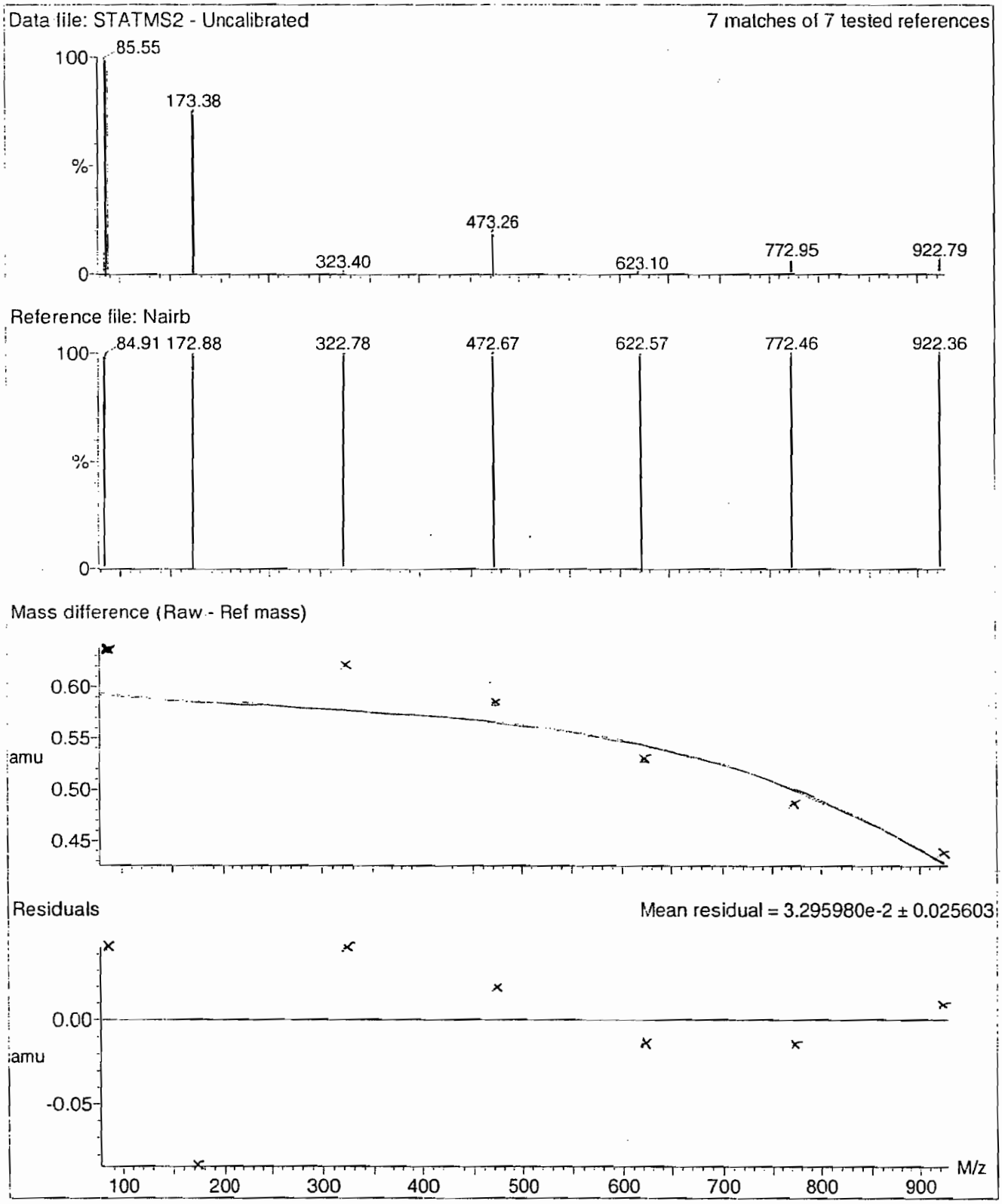
Printed: Tue Jan 08 12:22:56 2008



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

Calibration Report - MS2 Static

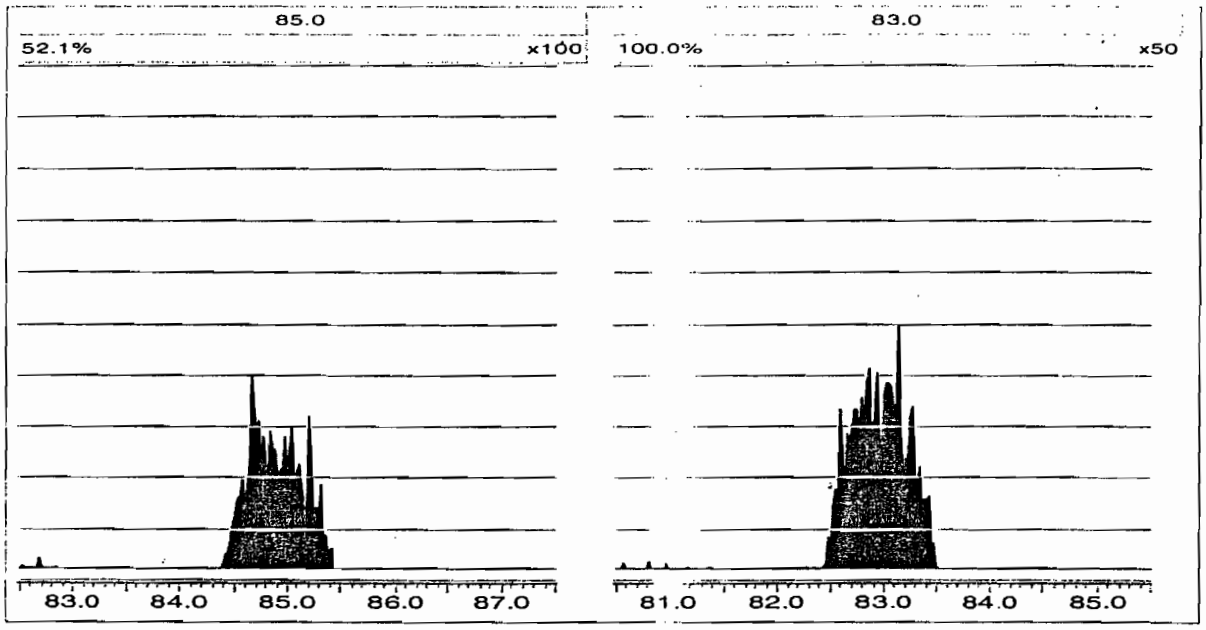
Printed: Tue Jan 08 12:21:59 2008



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

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

Printed: Saturday, February 13, 2010 11:59:50 Eastern Standard Time



Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0213006a**	**13-FEB-10**	**25889.1**				
Lower Area Limit			**12944.55**				
Upper Area Limit			**51778.2**				
1202042252	per0213079a	14-FEB-10 08:37	22627.7	5.4			
1202042253	per0213080a	14-FEB-10 08:50	25313	5.38	5.4083	1.005	
1202042256	per0213081a	14-FEB-10 09:03	24066.9	4.86	4.88657	1.005	
246838001	per0213107a	14-FEB-10 14:29	24242.7	5.04			

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 952834

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8085

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1747-1

GEL Sample ID: 246838001

Date Filtered: 13-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-FEB-10 14:29	per0213107a
	Perchlorate Isotope Ratio						1	14-FEB-10 14:29	per0213107a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-FEB-10 14:29	per0213107a
	Perchlorate-O(18)			0.470	ug/L		1	14-FEB-10 14:29	per0213107a

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

*Concentration =

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

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

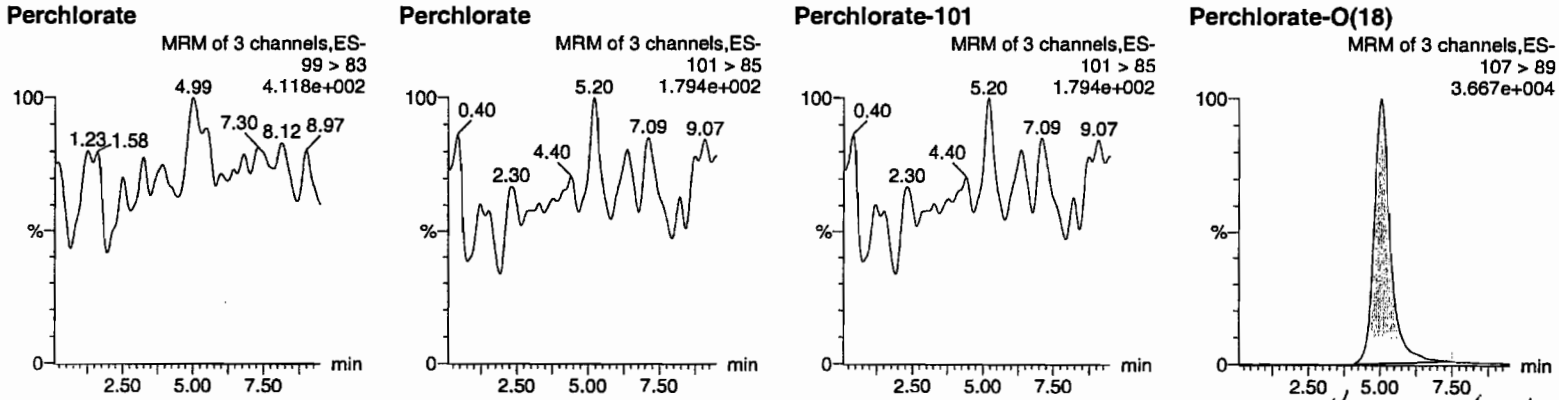
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213107a
Date: 14-Feb-2010
Time: 14:29:54
ID: 246838001
Vial: 3:4,E

|LANL|952836|LCQ|1|

CWO 02-15-10



HMW 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246838001	Perchlorate	99 > 83											0.00
246838001	Perchlorate-101	101 > 85											
246838001	Perchlorate-O(18)	107 > 89	5.04	24242.672	24242.672	bb			0.4703	94.07	-5.93	1360.6...	

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

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1747-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 13-FEB-10

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

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

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 60490.38

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1747-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 13-FEB-10

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

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

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 19330.44

Response Type: External Standard

Curve Type: RF

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

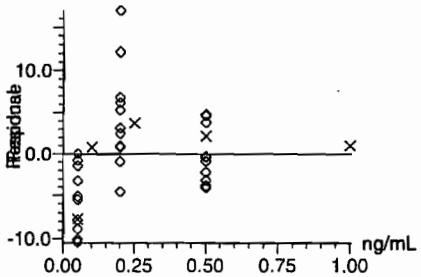
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

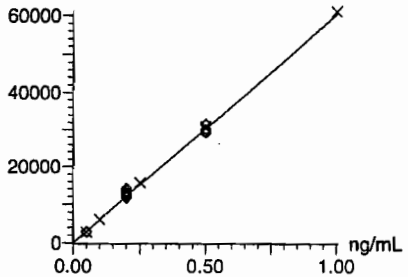
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021310a.mdb 14 Feb 2010 16:01:32
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021310a.cdb 14 Feb 2010 16:01:52

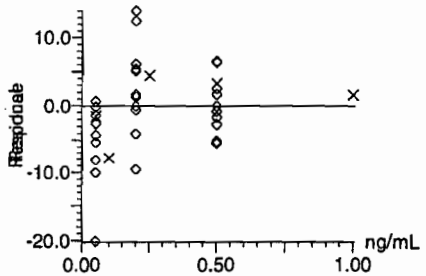
Compound name: Perchlorate
Response Factor: 60490.4
RRF SD: 2704.22, % Relative SD: 4.47049
Response type: External Std, Area
Curve type: RF

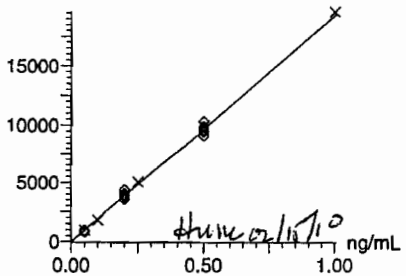




GW
02-15-10

Compound name: Perchlorate-101
Response Factor: 19330.5
RRF SD: 951.058, % Relative SD: 4.92
Response type: External Std, Area
Curve type: RF





thw 02/15/10

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

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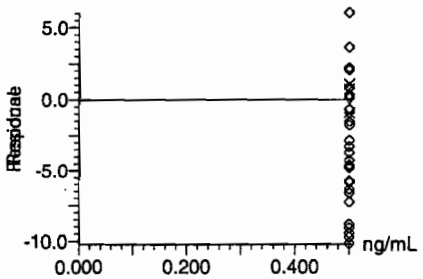
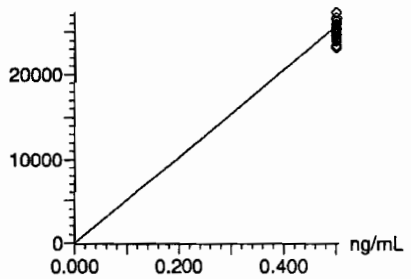
Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 51544.1
RRF SD: 533.442, % Relative SD: 1.03492
Response type: External Std, Area
Curve type: RF





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

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	103.85	13-FEB-10 17:58	per0213009a
Perchlorate Isotope Ratio		3.17		13-FEB-10 17:58	per0213009a
Perchlorate-101	.5	.51	102.55	13-FEB-10 17:58	per0213009a

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

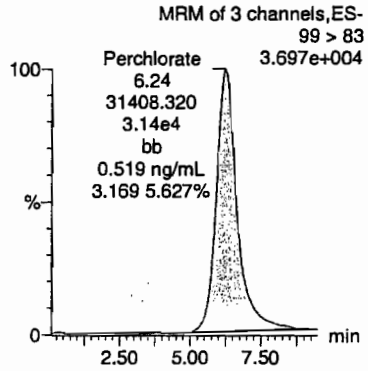
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

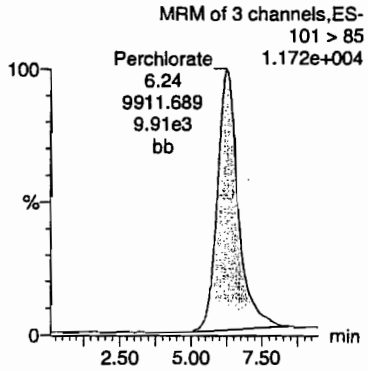
Name: per0213009a
Date: 13-Feb-2010
Time: 17:58:56
ID: WCL100211-06ICV
Vial: 1:2,A

PWO 02-15-10

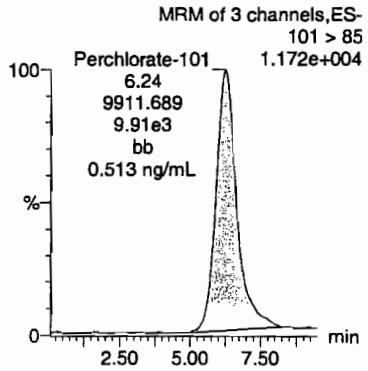
Perchlorate



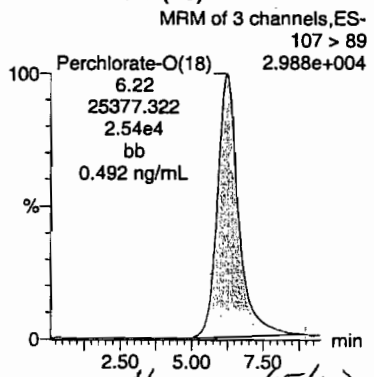
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06ICV	Perchlorate	99 > 83	6.24	31408.320	31408.320	bb			0.5192	103.85	3.85	1064.5...	3.17
WCL100211-06ICV	Perchlorate-101	101 > 85	6.24	9911.689	9911.689	bb			0.5128	102.55	2.55	468.706	
WCL100211-06ICV	Perchlorate-O(18)	107 > 89	6.22	25377.322	25377.322	bb			0.4923	98.47	-1.53	420.313	

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

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.12	13-FEB-10 20:29	per0213021a
Perchlorate Isotope Ratio		3.13		13-FEB-10 20:29	per0213021a
Perchlorate-101	.5	.5	99.24	13-FEB-10 20:29	per0213021a
Perchlorate	.5	.52	104.82	13-FEB-10 22:47	per0213032a
Perchlorate Isotope Ratio		3.08		13-FEB-10 22:47	per0213032a
Perchlorate-101	.5	.53	106.61	13-FEB-10 22:47	per0213032a
Perchlorate	.5	.52	104.65	14-FEB-10 01:05	per0213043a
Perchlorate Isotope Ratio		3.08		14-FEB-10 01:05	per0213043a
Perchlorate-101	.5	.53	106.37	14-FEB-10 01:05	per0213043a
Perchlorate	.5	.48	96.83	14-FEB-10 03:23	per0213054a
Perchlorate Isotope Ratio		3.2		14-FEB-10 03:23	per0213054a
Perchlorate-101	.5	.47	94.56	14-FEB-10 03:23	per0213054a
Perchlorate	.5	.48	96.17	14-FEB-10 05:41	per0213065a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.01		14-FEB-10 05:41	per0213065a
Perchlorate-101	.5	.5	100	14-FEB-10 05:41	per0213065a
Perchlorate	.5	.5	99.72	14-FEB-10 08:00	per0213076a
Perchlorate Isotope Ratio		3.07		14-FEB-10 08:00	per0213076a
Perchlorate-101	.5	.51	101.72	14-FEB-10 08:00	per0213076a
Perchlorate	.5	.48	95.91	14-FEB-10 10:30	per0213088a
Perchlorate Isotope Ratio		3.16		14-FEB-10 10:30	per0213088a
Perchlorate-101	.5	.47	94.9	14-FEB-10 10:30	per0213088a
Perchlorate	.5	.5	99.56	14-FEB-10 12:49	per0213099a
Perchlorate Isotope Ratio		3.2		14-FEB-10 12:49	per0213099a
Perchlorate-101	.5	.49	97.32	14-FEB-10 12:49	per0213099a
Perchlorate	.5	.49	97.8	14-FEB-10 15:07	per0213110a
Perchlorate Isotope Ratio		3.11		14-FEB-10 15:07	per0213110a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.5	.49	98.35	14-FEB-10 15:07	per0213110a

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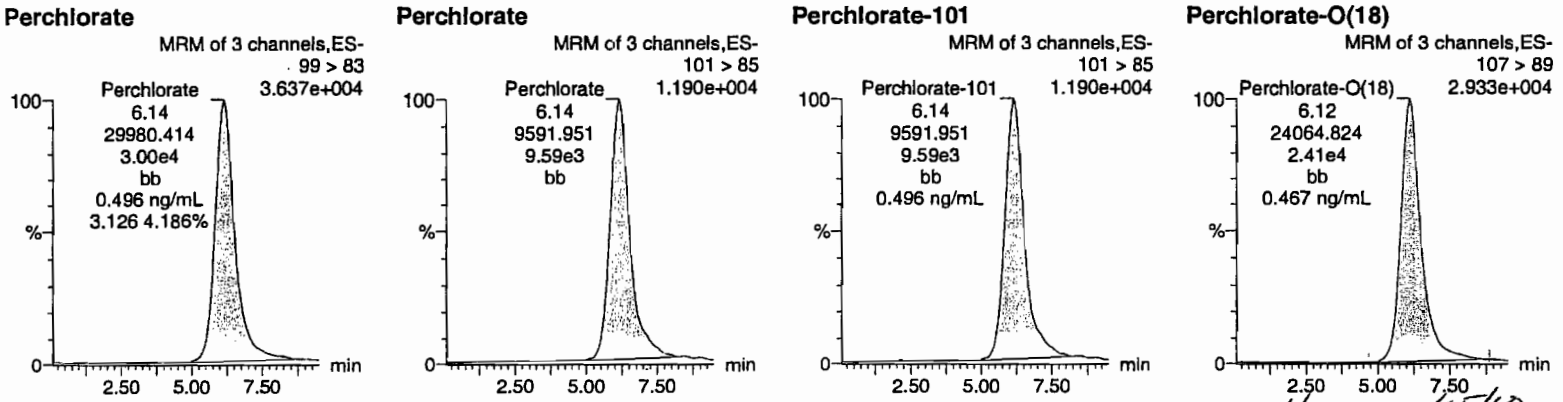
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Pass
CWW
02-15-10

Name: per0213021a
Date: 13-Feb-2010
Time: 20:29:24
ID: WCL100211-06CCV
Vial: 1:2,A



HMM 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	6.14	29980.414	29980.414	bb			0.4956	99.12	-0.88	438.945	3.13
WCL100211-06CCV	Perchlorate-101	101 > 85	6.14	9591.951	9591.951	bb			0.4962	99.24	-0.76	241.470	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	6.12	24064.824	24064.824	bb			0.4669	93.38	-6.62	1904.6...	

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

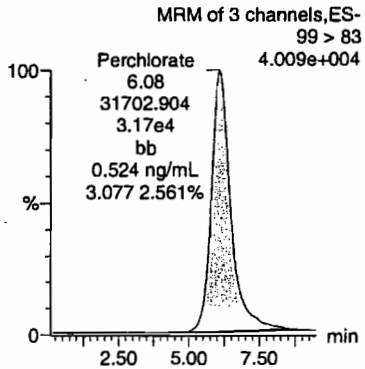
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

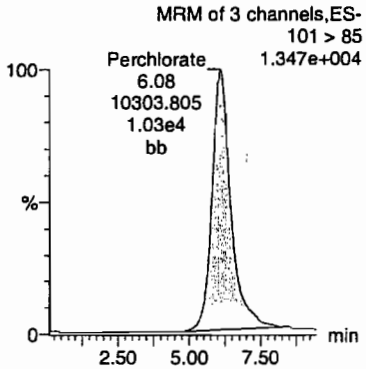
Name: per0213032a
Date: 13-Feb-2010
Time: 22:47:22
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
GW
02-15-10

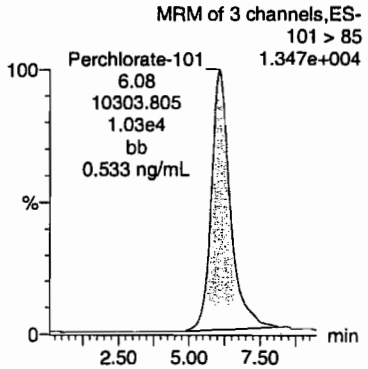
Perchlorate



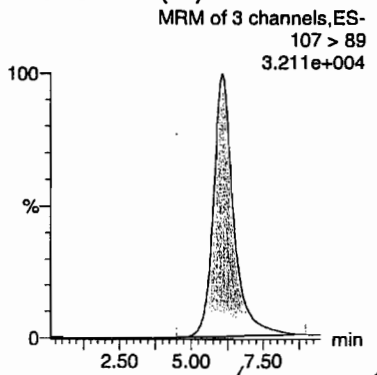
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Anne 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	6.08	31702.904	31702.904	bb			0.5241	104.82	4.82	1503.6...	3.08
WCL100211-06CCV	Perchlorate-101	101 > 85	6.08	10303.805	10303.805	bb			0.5330	106.61	6.61	391.742	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	6.05	25865.992	25865.992	bb			0.5018	100.36	0.36	1893.1...	

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

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

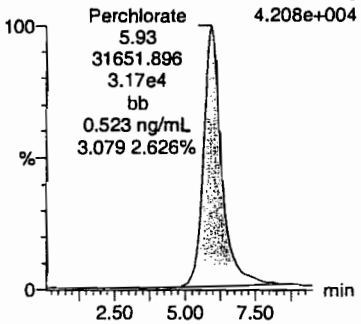
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

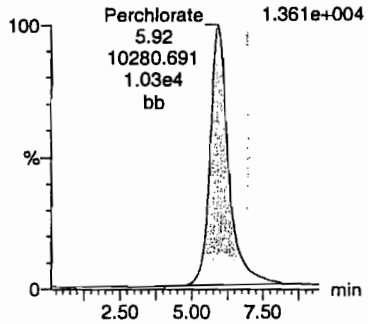
Name: per0213043a
Date: 14-Feb-2010
Time: 01:05:24
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
aw
02-15-10

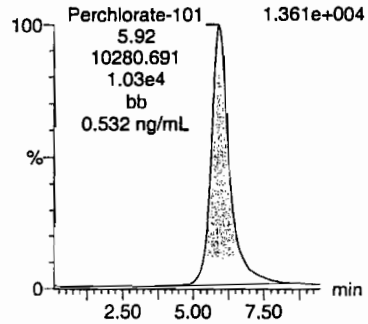
Perchlorate



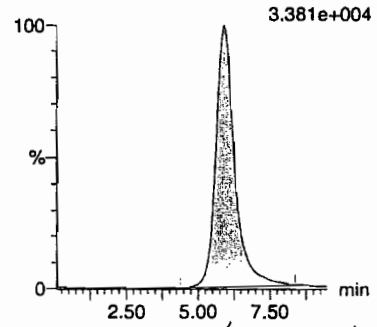
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	5.93	31651.896	31651.896	bb			0.5233	104.65	4.65	1450.3...	3.08
WCL100211-06CCV	Perchlorate-101	101 > 85	5.92	10280.691	10280.691	bb			0.5318	106.37	6.37	361.590	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	5.91	25794.512	25794.512	bb			0.5004	100.09	0.09	654.069	

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

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

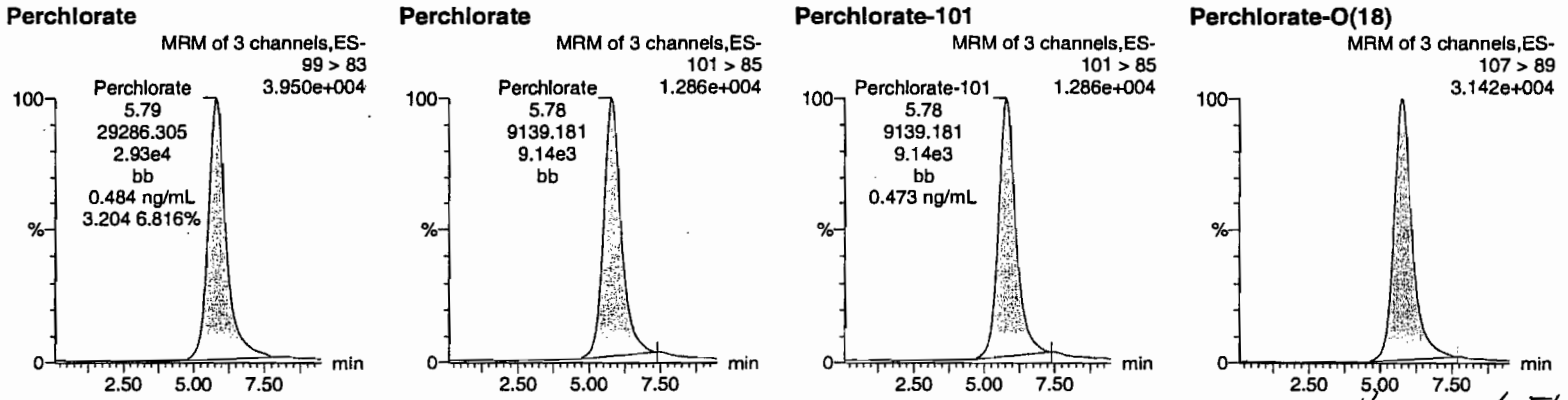
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213054a
Date: 14-Feb-2010
Time: 03:23:25
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
and
02-15-10



thm 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	5.79	29286.305	29286.305	bb			0.4841	96.83	-3.17	783.374	3.20
WCL100211-06CCV	Perchlorate-101	101 > 85	5.78	9139.181	9139.181	bb			0.4728	94.56	-5.44	312.149	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	5.76	23152.023	23152.023	bb			0.4492	89.83	-10.17	1414.4...	

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

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

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

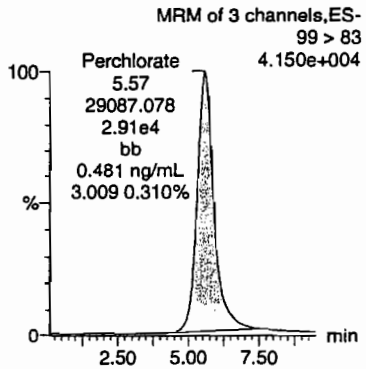
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

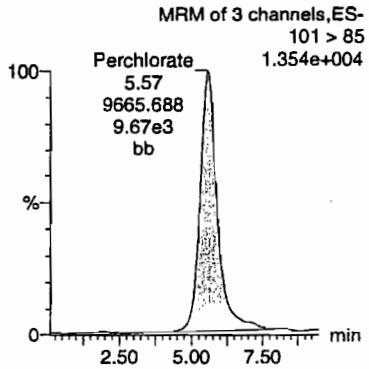
Name: per0213065a
Date: 14-Feb-2010
Time: 05:41:43
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
aw
02-15-10

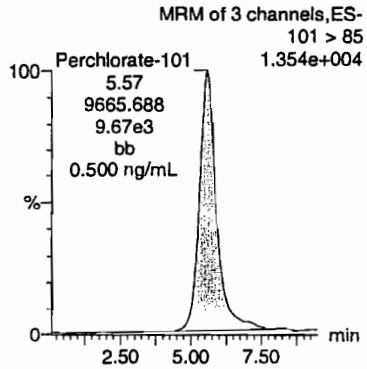
Perchlorate



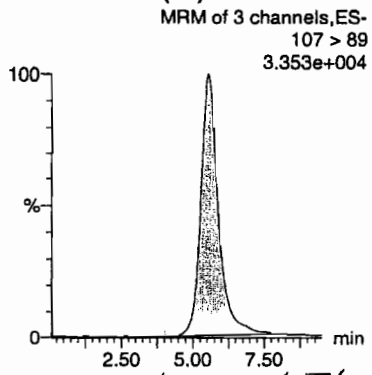
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	5.57	29087.078	29087.078	bb			0.4809	96.17	-3.83	836.811	3.01
WCL100211-06CCV	Perchlorate-101	101 > 85	5.57	9665.688	9665.688	bb			0.5000	100.00	0.00	258.819	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	5.53	24259.629	24259.629	bb			0.4707	94.13	-5.87	986.644	

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

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

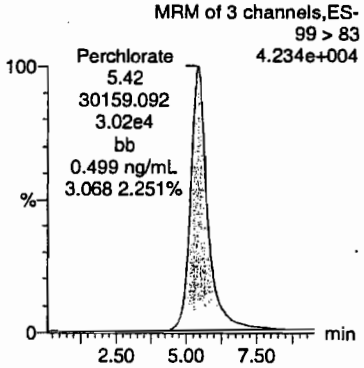
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

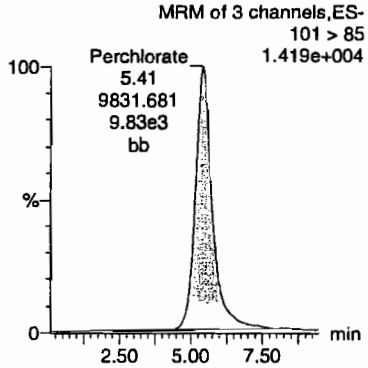
Name: per0213076a
Date: 14-Feb-2010
Time: 08:00:04
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
GWO
02-15-10

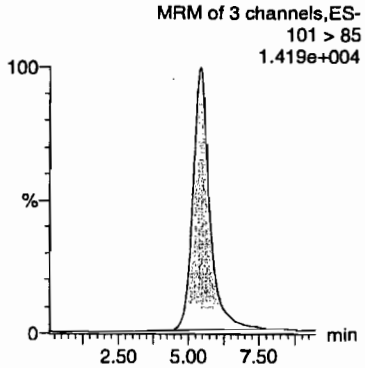
Perchlorate



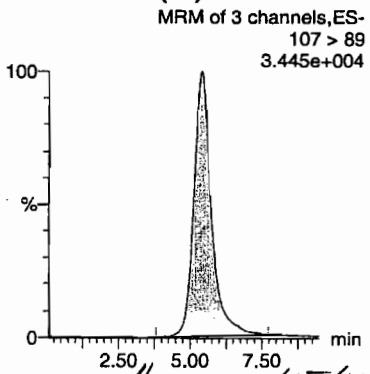
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	5.42	30159.092	30159.092	bb			0.4986	99.72	-0.28	396.939	3.07
WCL100211-06CCV	Perchlorate-101	101 > 85	5.41	9831.681	9831.681	bb			0.5086	101.72	1.72	1216.7...	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	5.40	24294.014	24294.014	bb			0.4713	94.26	-5.74	1174.6...	

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

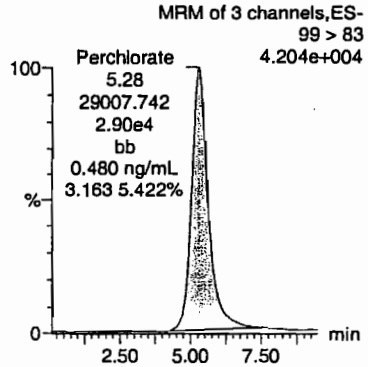
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

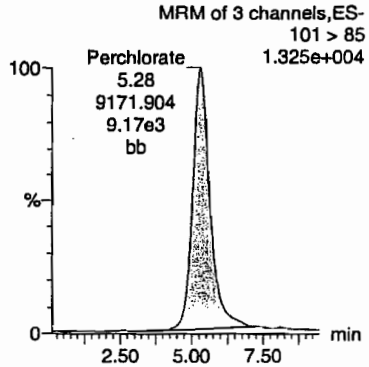
Name: per0213088a
Date: 14-Feb-2010
Time: 10:30:53
ID: WCL100211-06CCV
Vial: 1:2,A

Pm 02-15-10

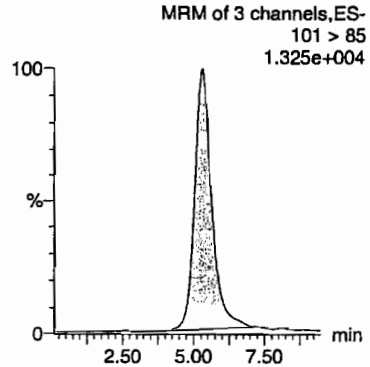
Perchlorate



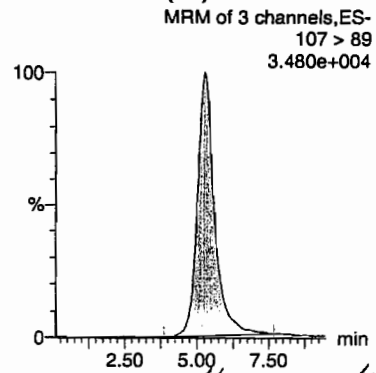
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmw 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	5.28	29007.742	29007.742	bb			0.4795	95.91	-4.09	2069.1...	3.16
WCL100211-06CCV	Perchlorate-101	101 > 85	5.28	9171.904	9171.904	bb			0.4745	94.90	-5.10	1075.5...	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	5.27	24057.377	24057.377	bb			0.4667	93.35	-6.65	1476.8...	

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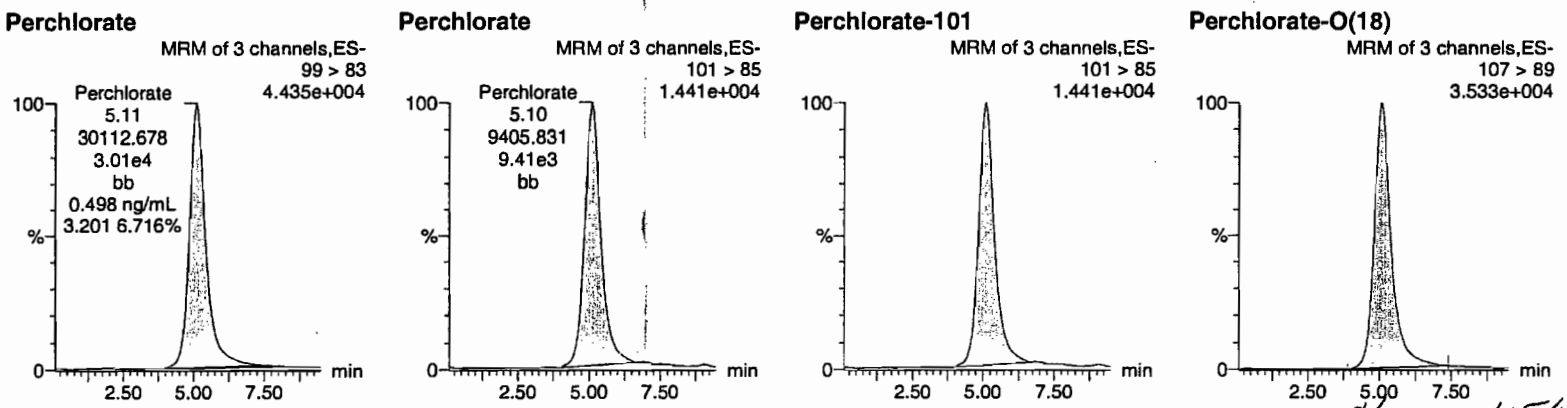
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213099a
Date: 14-Feb-2010
Time: 12:49:10
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
aw
02-15-10



Hmmod 15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	5.11	30112.678	30112.678	bb			0.4978	99.56	-0.44	2082.7...	3.20
WCL100211-06CCV	Perchlorate-101	101 > 85	5.10	9405.831	9405.831	bb			0.4866	97.32	-2.68	550.670	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	5.09	24123.588	24123.588	bb			0.4680	93.60	-6.40	1127.9...	

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

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

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

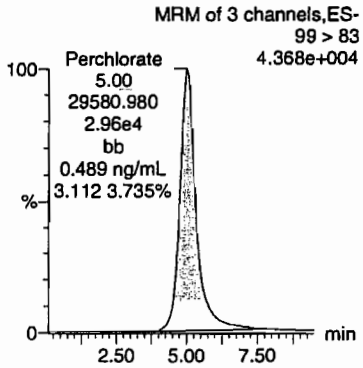
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

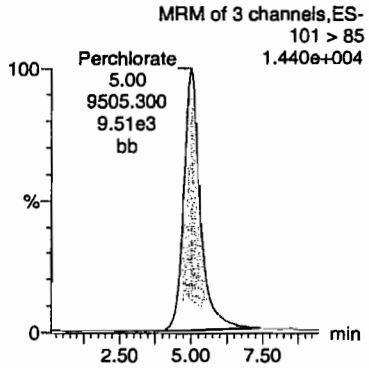
Name: per0213110a
Date: 14-Feb-2010
Time: 15:07:32
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
ang
02-15-10

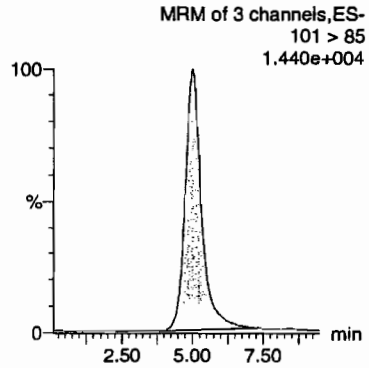
Perchlorate



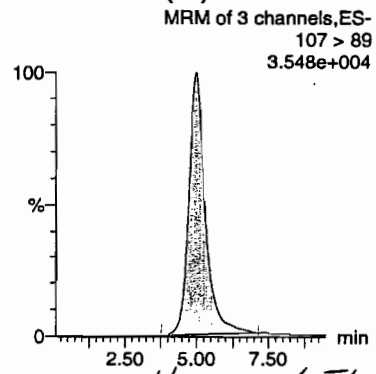
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	5.00	29580.980	29580.980	bb			0.4890	97.80	-2.20	2402.1...	3.11
WCL100211-06CCV	Perchlorate-101	101 > 85	5.00	9505.300	9505.300	bb			0.4917	98.35	-1.65	1249.8...	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	4.97	23262.109	23262.109	bb			0.4513	90.26	-9.74	1687.2...	

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

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

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	94.49	13-FEB-10 18:24	per0213011a
Perchlorate Isotope Ratio		3		13-FEB-10 18:24	per0213011a
Perchlorate-101	.05	.05	98.59	13-FEB-10 18:24	per0213011a
Perchlorate	.05	.05	96.73	13-FEB-10 20:54	per0213023a
Perchlorate Isotope Ratio		3.79		13-FEB-10 20:54	per0213023a
Perchlorate-101	.05	.04	79.9	13-FEB-10 20:54	per0213023a
Perchlorate	.05	.05	94.87	13-FEB-10 23:12	per0213034a
Perchlorate Isotope Ratio		2.97		13-FEB-10 23:12	per0213034a
Perchlorate-101	.05	.05	99.84	13-FEB-10 23:12	per0213034a
Perchlorate	.05	.05	98.54	14-FEB-10 01:30	per0213045a
Perchlorate Isotope Ratio		3.16		14-FEB-10 01:30	per0213045a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.05	97.58	14-FEB-10 01:30	per0213045a
Perchlorate	.05	.05	92.17	14-FEB-10 03:48	per0213056a
Perchlorate Isotope Ratio		2.96		14-FEB-10 03:48	per0213056a
Perchlorate-101	.05	.05	97.35	14-FEB-10 03:48	per0213056a
Perchlorate	.05	.04	89.59	14-FEB-10 06:07	per0213067a
Perchlorate Isotope Ratio		3.12		14-FEB-10 06:07	per0213067a
Perchlorate-101	.05	.04	89.95	14-FEB-10 06:07	per0213067a
Perchlorate	.05	.04	89.89	14-FEB-10 08:25	per0213078a
Perchlorate Isotope Ratio		2.94		14-FEB-10 08:25	per0213078a
Perchlorate-101	.05	.05	95.73	14-FEB-10 08:25	per0213078a
Perchlorate	.05	.05	100.01	14-FEB-10 10:56	per0213090a

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

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1747-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.41		14-FEB-10 10:56	per0213090a
Perchlorate-101	.05	.05	91.86	14-FEB-10 10:56	per0213090a
Perchlorate	.05	.05	99.21	14-FEB-10 13:14	per0213101a
Perchlorate Isotope Ratio		3.08		14-FEB-10 13:14	per0213101a
Perchlorate-101	.05	.05	100.68	14-FEB-10 13:14	per0213101a
Perchlorate	.05	.05	91.13	14-FEB-10 15:32	per0213112a
Perchlorate Isotope Ratio		3.01		14-FEB-10 15:32	per0213112a
Perchlorate-101	.05	.05	94.68	14-FEB-10 15:32	per0213112a

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

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

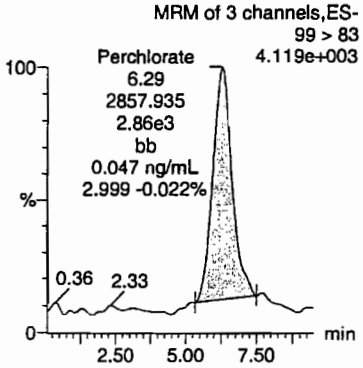
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

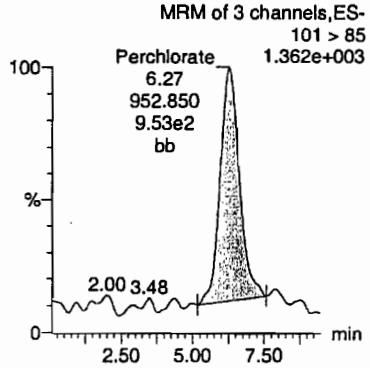
Name: per0213011a
Date: 13-Feb-2010
Time: 18:24:01
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
CW
02-15-10

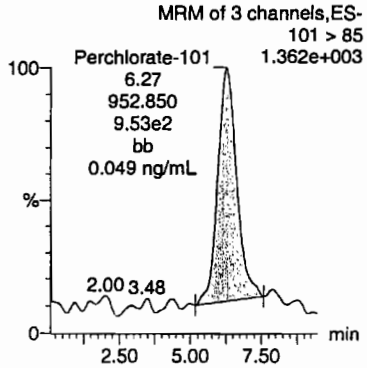
Perchlorate



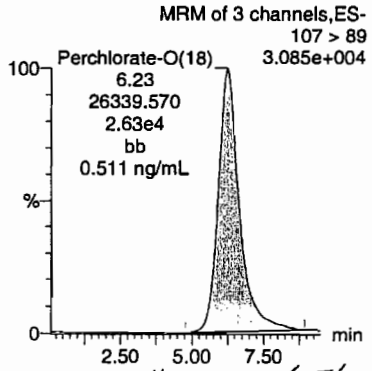
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hume 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	6.29	2857.935	2857.935	bb			0.0472	94.49	-5.51	54.125	3.00
WCL100211-07CRI	Perchlorate-101	101 > 85	6.27	952.850	952.850	bb			0.0493	98.59	-1.41	47.770	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	6.23	26339.570	26339.570	bb			0.5110	102.20	2.20	751.876	

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

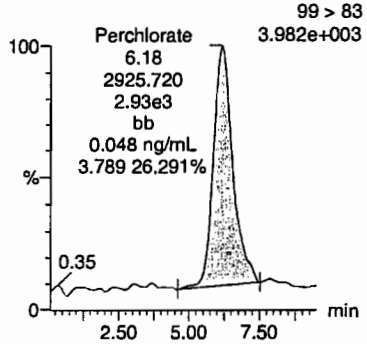
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

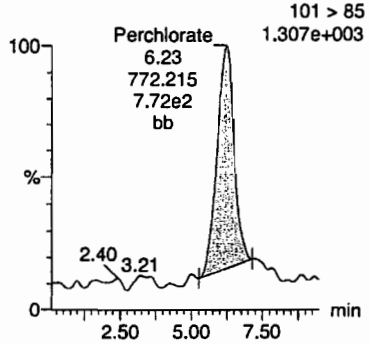
Name: per0213023a
Date: 13-Feb-2010
Time: 20:54:29
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
and
02-15-10

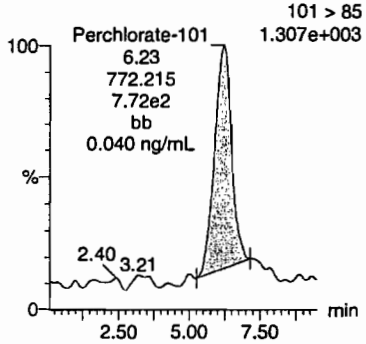
Perchlorate



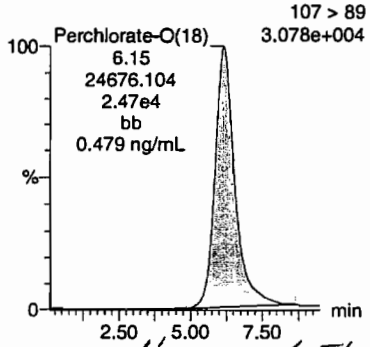
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	6.18	2925.720	2925.720	bb			0.0484	96.73	-3.27	118.674	3.79
WCL100211-07CRI	Perchlorate-101	101 > 85	6.23	772.215	772.215	bb			0.0399	79.90	-20.10	51.675	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	6.15	24676.104	24676.104	bb			0.4787	95.75	-4.25	515.797	

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

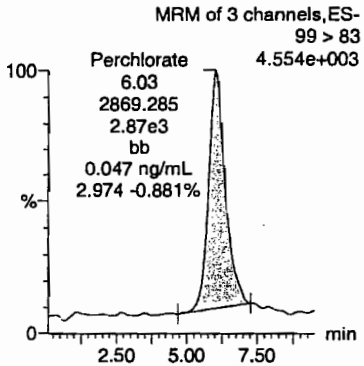
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

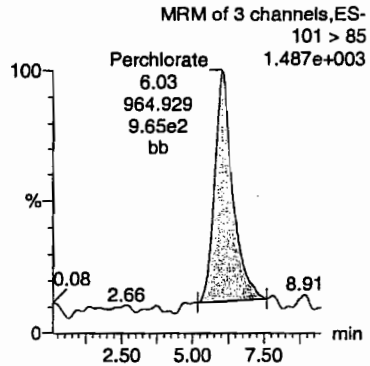
Name: per0213034a
Date: 13-Feb-2010
Time: 23:12:27
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
ans
02-15-10

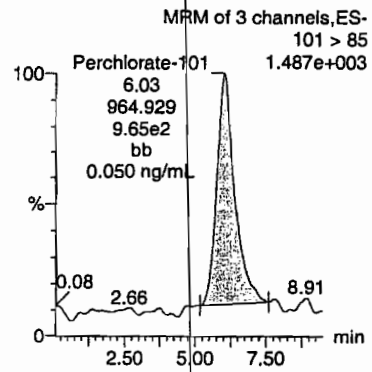
Perchlorate



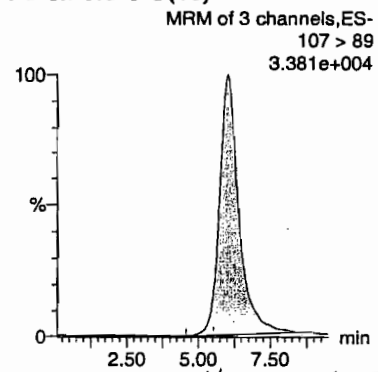
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hrm 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	6.03	2869.285	2869.285	bb			0.0474	94.87	-5.13	281.934	2.97
WCL100211-07CRI	Perchlorate-101	101 > 85	6.03	964.929	964.929	bb			0.0499	99.84	-0.16	64.904	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	6.02	26300.902	26300.902	bb			0.5103	102.05	2.05	708.505	

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

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

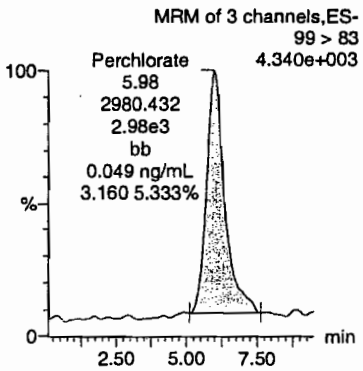
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

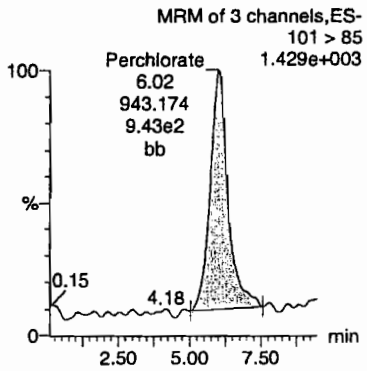
Name: per0213045a
Date: 14-Feb-2010
Time: 01:30:28
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
[illegible]
02-15-10

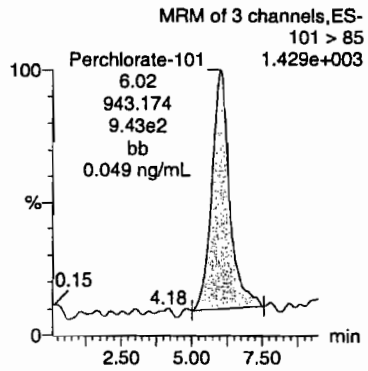
Perchlorate



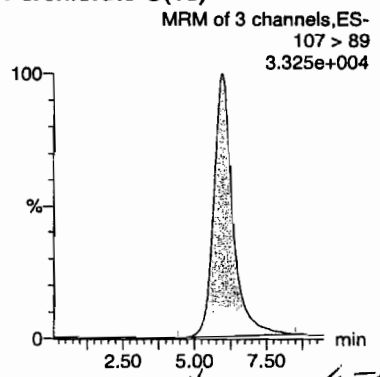
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	5.98	2980.432	2980.432	bb			0.0493	98.54	-1.46	206.524	3.16
WCL100211-07CRI	Perchlorate-101	101 > 85	6.02	943.174	943.174	bb			0.0488	97.58	-2.42	89.238	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	5.95	25584.479	25584.479	bb			0.4964	99.27	-0.73	476.770	

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

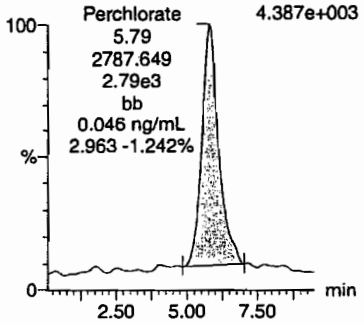
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

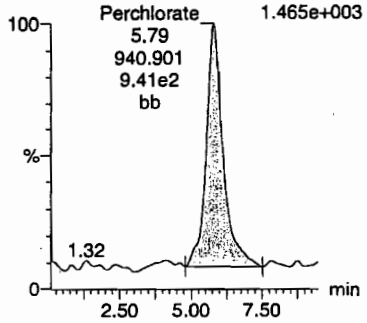
Name: per0213056a
Date: 14-Feb-2010
Time: 03:48:42
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
AW
02-15-10

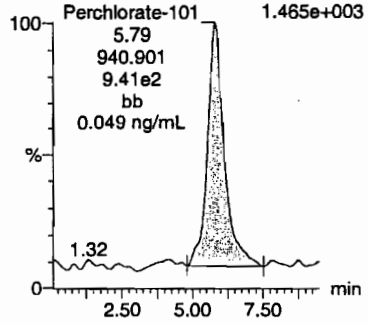
Perchlorate



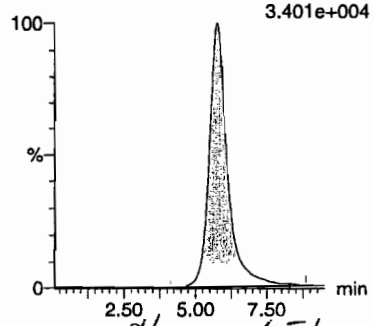
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmw 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	5.79	2787.649	2787.649	bb			0.0461	92.17	-7.83	75.971	2.96
WCL100211-07CRI	Perchlorate-101	101 > 85	5.79	940.901	940.901	bb			0.0487	97.35	-2.65	143.711	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	5.76	25598.033	25598.033	bb			0.4966	99.32	-0.68	2095.1...	

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

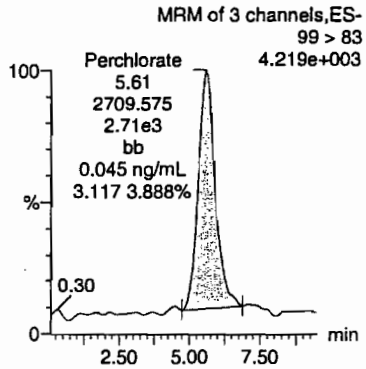
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

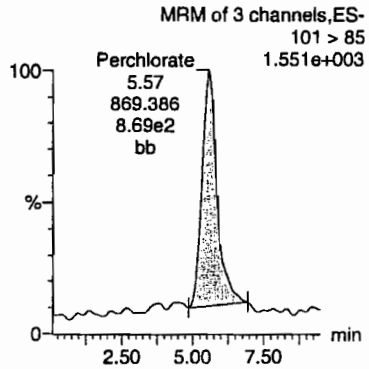
Name: per0213067a
Date: 14-Feb-2010
Time: 06:07:03
ID: WCL100211-07CRI
Vial: 1:2,B

Pwm and 02-15-10

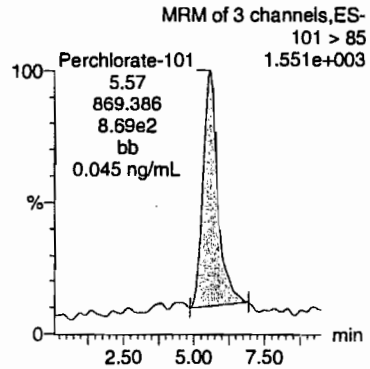
Perchlorate



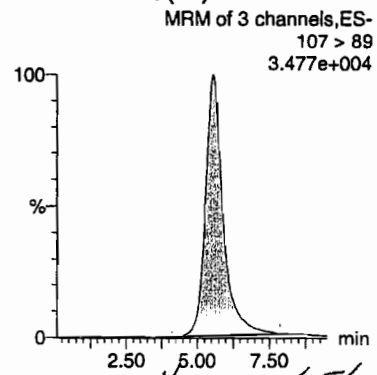
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmc 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	5.61	2709.575	2709.575	bb			0.0448	89.59	-10.41	98.621	3.12
WCL100211-07CRI	Perchlorate-101	101 > 85	5.57	869.386	869.386	bb			0.0450	89.95	-10.05	111.124	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	5.56	24921.221	24921.221	bb			0.4835	96.70	-3.30	2105.1...	

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

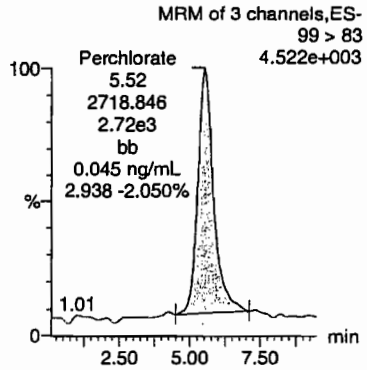
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

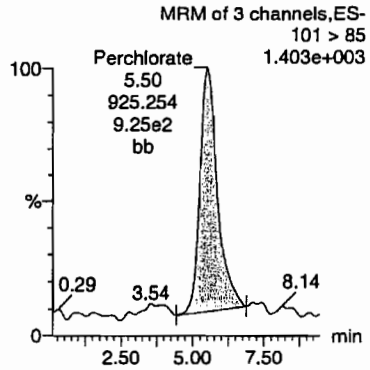
Name: per0213078a
Date: 14-Feb-2010
Time: 08:25:23
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
aw
02-15-10

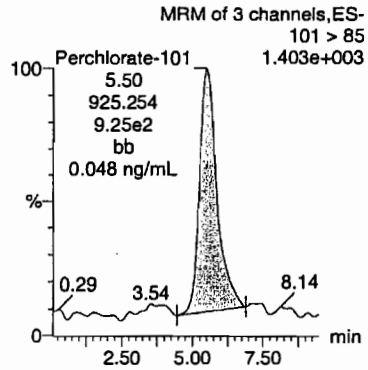
Perchlorate



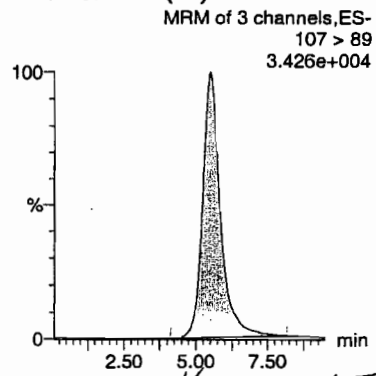
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	5.52	2718.846	2718.846	bb			0.0449	89.89	-10.11	183.472	2.94
WCL100211-07CRI	Perchlorate-101	101 > 85	5.50	925.254	925.254	bb			0.0479	95.73	-4.27	36.201	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	5.50	24528.357	24528.357	bb			0.4759	95.17	-4.83	2714.0...	

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

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

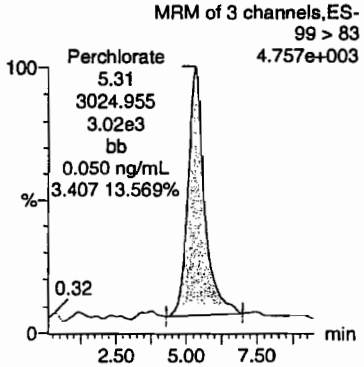
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

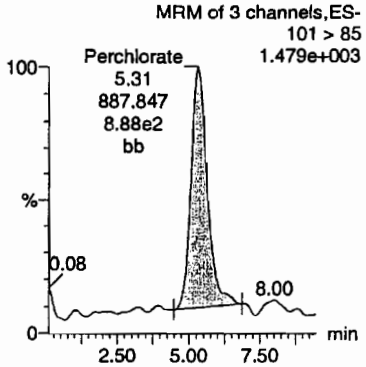
Name: per0213090a
Date: 14-Feb-2010
Time: 10:56:10
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
ow
02-15-10

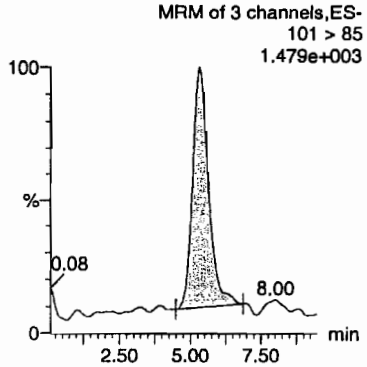
Perchlorate



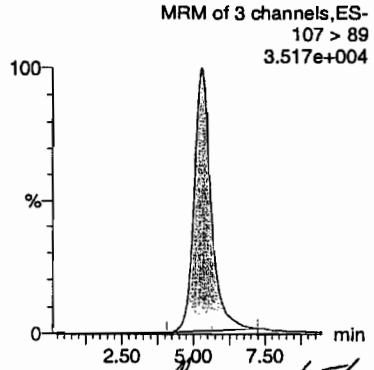
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Ann 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	5.31	3024.955	3024.955	bb			0.0500	100.01	0.01	274.970	3.41
WCL100211-07CRI	Perchlorate-101	101 > 85	5.31	887.847	887.847	bb			0.0459	91.86	-8.14	42.943	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	5.28	23897.891	23897.891	bb			0.4636	92.73	-7.27	2182.5...	

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

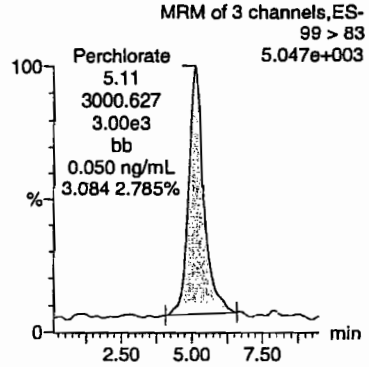
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

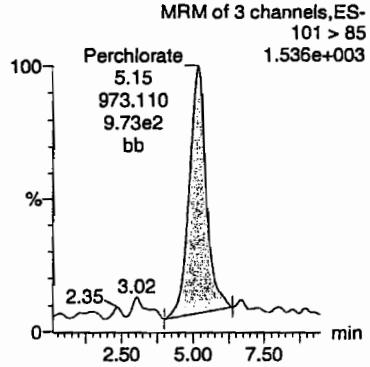
Name: per0213101a
Date: 14-Feb-2010
Time: 13:14:27
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
CWO
02-15-10

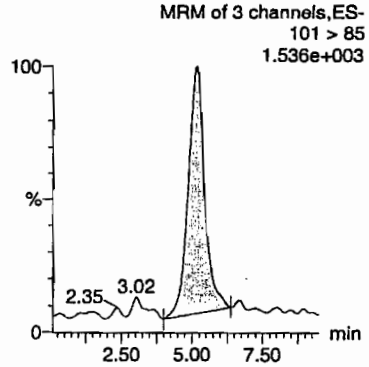
Perchlorate



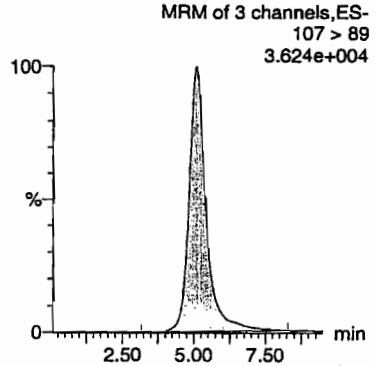
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	5.11	3000.627	3000.627	bb			0.0496	99.21	-0.79	215.504	3.08
WCL100211-07CRI	Perchlorate-101	101 > 85	5.15	973.110	973.110	bb			0.0503	100.68	0.68	162.247	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	5.09	25036.271	25036.271	bb			0.4857	97.15	-2.85	2378.4...	

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

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

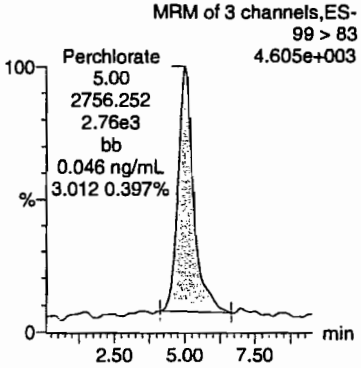
Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

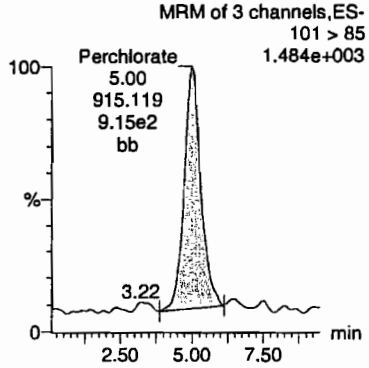
Name: per0213112a
Date: 14-Feb-2010
Time: 15:32:49
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
and
02-15-10

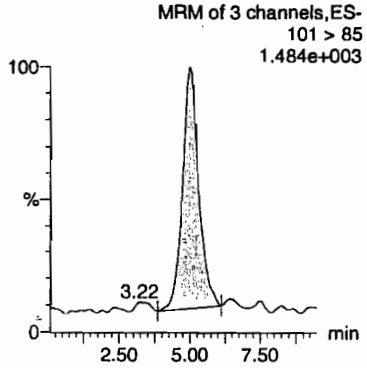
Perchlorate



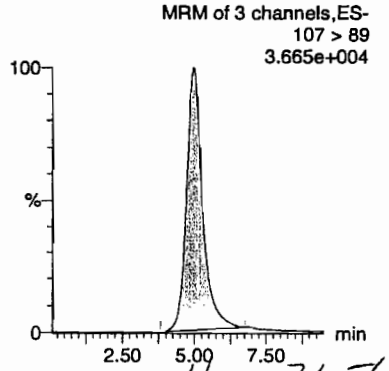
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	5.00	2756.252	2756.252	bb			0.0456	91.13	-8.87	189.247	3.01
WCL100211-07CRI	Perchlorate-101	101 > 85	5.00	915.119	915.119	bb			0.0473	94.68	-5.32	54.229	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	4.97	23489.918	23489.918	bb			0.4557	91.14	-8.86	314.882	

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

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

QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 952834

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 13-FEB-10

GEL Job No (SDG): 10-1747-1

GEL Sample ID: 1202042252

Date Filtered: 13-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-FEB-10 08:37	per0213079a
	Perchlorate Isotope Ratio						1	14-FEB-10 08:37	per0213079a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-FEB-10 08:37	per0213079a
	Perchlorate-O(18)			0.439	ug/L		1	14-FEB-10 08:37	per0213079a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

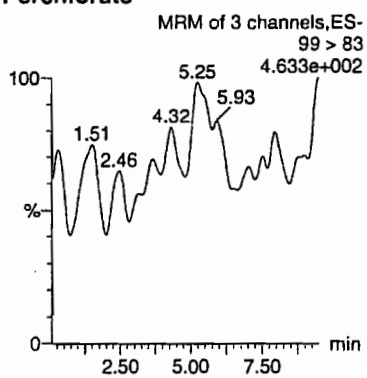
Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213079a
Date: 14-Feb-2010
Time: 08:37:55
ID: 1202042252
Vial: 3:1,A

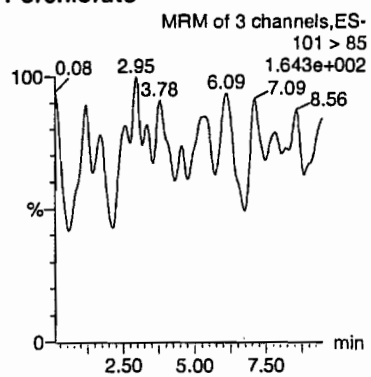
|LANL|952336|LIQ|MB|1|

CWW
02-15-10

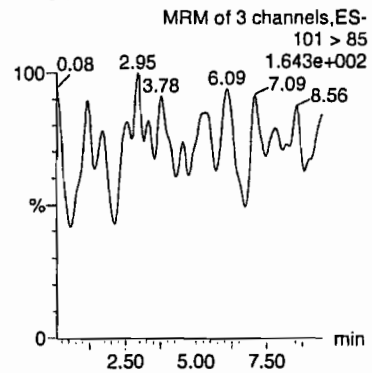
Perchlorate



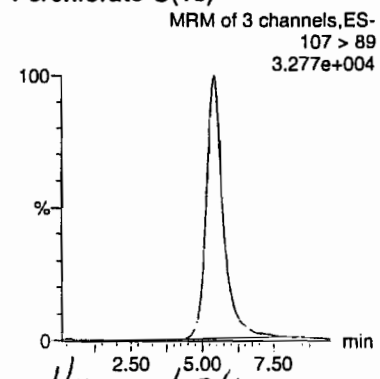
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202042252	Perchlorate	99 > 83											0.00
1202042252	Perchlorate-101	101 > 85											
1202042252	Perchlorate-O(18)	107 > 89	5.40	22627.660	22627.660	bb			0.4390	87.80	-12.20	1966.2...	

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 952834

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 13-FEB-10

GEL Job No (SDG): 10-1747-1

GEL Sample ID: 1202042253

Date Filtered: 13-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.214	ug/L		1	14-FEB-10 08:50	per0213080a
	Perchlorate Isotope Ratio			3.36			1	14-FEB-10 08:50	per0213080a
14797-73-0	Perchlorate-101	.05	.2	0.199	ug/L	J	1	14-FEB-10 08:50	per0213080a
	Perchlorate-O(18)			0.491	ug/L		1	14-FEB-10 08:50	per0213080a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

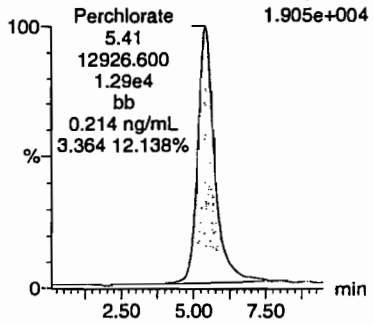
Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213080a
Date: 14-Feb-2010
Time: 08:50:40
ID: 1202042253
Vial: 3:1,B

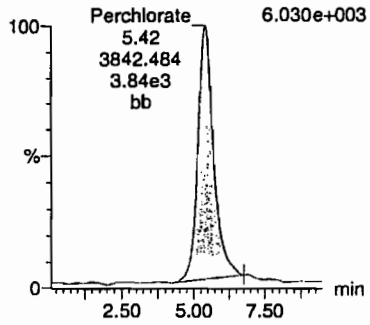
|LANL|952836|LZQ|LCS|1|

CWO
02-15-10

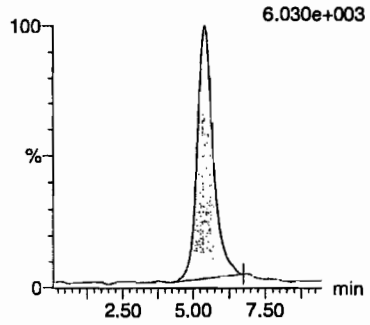
Perchlorate



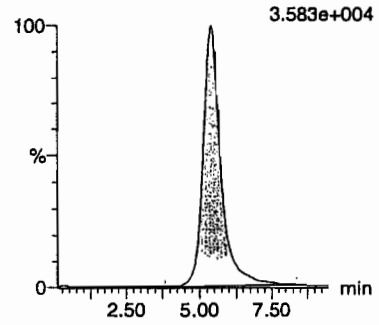
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202042253	Perchlorate	99 > 83	5.41	12926.600	12926.600	bb			0.2137	106.85	6.85	880.475	3.36
1202042253	Perchlorate-101	101 > 85	5.42	3842.484	3842.484	bb			0.1988	99.39	-0.61	328.344	
1202042253	Perchlorate-O(18)	107 > 89	5.38	25312.988	25312.988	bb			0.4911	98.22	-1.78	2234.6...	

$\frac{12926.600}{60490.4} = 0.2137$

HMC 02/15/10

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

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MISCELLANEOUS DATA

Prep Logbook

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

Batch ID: 952834 **Verified by:**
Analyst: Jareth Shirley
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202042252 MB	13-FEB-2010 12:31:00	10	10	1
1202042253 LCS	13-FEB-2010 12:31:00	10	10	1
246555001	13-FEB-2010 12:31:00	10	10	1
246560001	13-FEB-2010 12:31:00	10	10	1
246571001	13-FEB-2010 12:31:00	10	10	1
1202042254 MS (246571001)	13-FEB-2010 12:31:00	10	10	1
1202042255 MSD (246571001)	13-FEB-2010 12:31:00	10	10	1
246571002	13-FEB-2010 12:31:00	10	10	1
246590001	13-FEB-2010 12:31:00	10	10	1
246591001	13-FEB-2010 12:31:00	10	10	1
246606001	13-FEB-2010 12:31:00	10	10	1
246613001	13-FEB-2010 12:31:00	10	10	1
246724001	13-FEB-2010 12:31:00	10	10	1
246724002	13-FEB-2010 12:31:00	10	10	1
246730001	13-FEB-2010 12:31:00	10	10	1
246742001	13-FEB-2010 12:31:00	10	10	1
246742002	13-FEB-2010 12:31:00	10	10	1
246753001	13-FEB-2010 12:31:00	10	10	1
246755001	13-FEB-2010 12:31:00	10	10	1
246755002	13-FEB-2010 12:31:00	10	10	1
246766001	13-FEB-2010 12:31:00	10	10	1
246838001	13-FEB-2010 12:31:00	10	10	1
246842001	13-FEB-2010 12:31:00	10	10	1
246844001	13-FEB-2010 12:31:00	10	10	1
1202042256 ICS	13-FEB-2010 12:31:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202042256	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.2	mL
LCS	1202042253	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.2	mL
MS	1202042254	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.2	mL
MSD	1202042255	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.2	mL
RGNT	All	O2SI HPLC Grade Water	1261217	10	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL

Comments: Desalting cartridges used: BJ01/02J1609 & BJ0003J1609

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/13/10
Extr. Injection Volume: 20uL
Sequence Number: per021310a
Initial Calibration Date: 02/13/10

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

Reviewed BY: HMC
Date: 02/15/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100211-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0213001a	IPB001	CWW	2/13/2010 16:18			1		USE	B
per0213002a	IPB001	CWW	2/13/2010 16:31			1		USE	B
per0213003a	WCLICAL-01	CWW	2/13/2010 16:43			1		USE	I
per0213004a	WCLICAL-02	CWW	2/13/2010 16:56			1		USE	I
per0213005a	WCLICAL-03	CWW	2/13/2010 17:08			1		USE	I
per0213006a	WCLICAL-04	CWW	2/13/2010 17:21			1		USE	I
per0213007a	WCLICAL-05	CWW	2/13/2010 17:33			1		USE	I
per0213008a	IPB002	CWW	2/13/2010 17:46			1		USE	B
per0213009a	WCLICV	CWW	2/13/2010 17:58			1		USE	C
per0213010a	IPB003	CWW	2/13/2010 18:11			1		USE	B
per0213011a	WCLCRI	CWW	2/13/2010 18:24			1		USE	C
per0213012a	1202035626	CWW	2/13/2010 18:36	950051	VARIOUS	1	LANL	USE	S
per0213013a	1202035627	CWW	2/13/2010 18:49	950051	VARIOUS	1	LANL	USE	S
per0213014a	1202035630	CWW	2/13/2010 19:01	950051	VARIOUS	1	LANL	USE	S
per0213015a	245915001	CWW	2/13/2010 19:14	950051	10-1491	1	LANL	USE	S
per0213016a	245915002	CWW	2/13/2010 19:26	950051	10-1491	1	LANL	USE	S
per0213017a	245915003	CWW	2/13/2010 19:39	950051	10-1491	1	LANL	USE	S
per0213018a	245915004	CWW	2/13/2010 19:51	950051	10-1491	1	LANL	USE	S
per0213019a	245915005	CWW	2/13/2010 20:04	950051	10-1491	1	LANL	USE	S
per0213020a	245915006	CWW	2/13/2010 20:16	950051	10-1491	1	LANL	USE	S
per0213021a	WCLCCV	CWW	2/13/2010 20:29			1		USE	C
per0213022a	IPB004	CWW	2/13/2010 20:41			1		USE	B
per0213023a	WCLCRI	CWW	2/13/2010 20:54			1		USE	C
per0213024a	245921001	CWW	2/13/2010 21:07	950051	10-1493	1	LANL	USE	S
per0213025a	245921002	CWW	2/13/2010 21:19	950051	10-1493	1	LANL	USE	S
per0213026a	245921003	CWW	2/13/2010 21:32	950051	10-1493	1	LANL	USE	S
per0213027a	245921004	CWW	2/13/2010 21:44	950051	10-1493	1	LANL	USE	S
per0213028a	245921005	CWW	2/13/2010 21:57	950051	10-1493	1	LANL	USE	S
per0213029a	245950001	CWW	2/13/2010 22:09	950051	10-1508	1	LANL	USE	S

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per0213030a	1202035628	CWW	2/13/2010 22:22	950051	10-1508	1	LANL	USE	S
per0213031a	1202035629	CWW	2/13/2010 22:34	950051	10-1508	1	LANL	USE	S
per0213032a	WCLCCV	CWW	2/13/2010 22:47			1		USE	C
per0213033a	IPB005	CWW	2/13/2010 22:59			1		USE	B
per0213034a	WCLCRI	CWW	2/13/2010 23:12			1		USE	C
per0213035a	245950002	CWW	2/13/2010 23:24	950051	10-1508	1	LANL	USE	S
per0213036a	245950003	CWW	2/13/2010 23:37	950051	10-1508	1	LANL	USE	S
per0213037a	245950004	CWW	2/13/2010 23:50	950051	10-1508	1	LANL	USE	S
per0213038a	245950005	CWW	2/14/2010 0:02	950051	10-1508	1	LANL	USE	S
per0213039a	245950006	CWW	2/14/2010 0:15	950051	10-1508	1	LANL	USE	S
per0213040a	245950007	CWW	2/14/2010 0:27	950051	10-1508	1	LANL	USE	S
per0213041a	245950008	CWW	2/14/2010 0:40	950051	10-1508	1	LANL	USE	S
per0213042a	245950009	CWW	2/14/2010 0:52	950051	10-1508	1	LANL	USE	S
per0213043a	WCLCCV	CWW	2/14/2010 1:05			1		USE	C
per0213044a	IPB006	CWW	2/14/2010 1:17			1		USE	B
per0213045a	WCLCRI	CWW	2/14/2010 1:30			1		USE	C
per0213046a	1202041297	CWW	2/14/2010 1:43	952420	VARIOUS	1	LANL	USE	S
per0213047a	1202041298	CWW	2/14/2010 1:55	952420	VARIOUS	1	LANL	USE	S
per0213048a	1202041301	CWW	2/14/2010 2:08	952420	VARIOUS	1	LANL	USE	S
per0213049a	246270002	CWW	2/14/2010 2:20	952420	10-1574	1	LANL	USE	S
per0213050a	246270003	CWW	2/14/2010 2:33	952420	10-1574	1	LANL	USE	S
per0213051a	246270004	CWW	2/14/2010 2:45	952420	10-1574	1	LANL	USE	S
per0213052a	246270005	CWW	2/14/2010 2:58	952420	10-1574	1	LANL	USE	S
per0213053a	246300001	CWW	2/14/2010 3:10	952420	10-1557-1	1	LANL	USE	S
per0213054a	WCLCCV	CWW	2/14/2010 3:23			1		USE	C
per0213055a	IPB007	CWW	2/14/2010 3:36			1		USE	B
per0213056a	WCLCRI	CWW	2/14/2010 3:48			1		USE	C
per0213057a	246300002	CWW	2/14/2010 4:01	952420	10-1557-1	1	LANL	USE	S
per0213058a	1202041299	CWW	2/14/2010 4:13	952420	10-1557-1	1	LANL	USE	S
per0213059a	1202041300	CWW	2/14/2010 4:26	952420	10-1557-1	1	LANL	USE	S
per0213060a	246300003	CWW	2/14/2010 4:39	952420	10-1557-1	1	LANL	USE	S
per0213061a	246305001	CWW	2/14/2010 4:51	952420	10-1559	1	LANL	USE	S
per0213062a	246305002	CWW	2/14/2010 5:04	952420	10-1559	1	LANL	USE	S
per0213063a	246305003	CWW	2/14/2010 5:16	952420	10-1559	1	LANL	USE	S
per0213064a	246305004	CWW	2/14/2010 5:29	952420	10-1559	1	LANL	USE	S
per0213065a	WCLCCV	CWW	2/14/2010 5:41			1		USE	C
per0213066a	IPB008	CWW	2/14/2010 5:54			1		USE	B

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per0213067a	WCLCRI	CWW	2/14/2010 6:07			1		USE	C
per0213068a	246312001	CWW	2/14/2010 6:19	952420	10-1561	1	LANL	USE	S
per0213069a	246317001	CWW	2/14/2010 6:32	952420	10-1563	1	LANL	USE	S
per0213070a	246317002	CWW	2/14/2010 6:44	952420	10-1563	1	LANL	USE	S
per0213071a	246317003	CWW	2/14/2010 6:57	952420	10-1563	1	LANL	USE	S
per0213072a	246317004	CWW	2/14/2010 7:09	952420	10-1563	1	LANL	USE	S
per0213073a	246317005	CWW	2/14/2010 7:22	952420	10-1563	1	LANL	USE	S
per0213074a	246575003	CWW	2/14/2010 7:35	952420	10-1675	1	LANL	USE	S
per0213075a	246575004	CWW	2/14/2010 7:47	952420	10-1675	1	LANL	USE	S
per0213076a	WCLCCV	CWW	2/14/2010 8:00			1		USE	C
per0213077a	IPB009	CWW	2/14/2010 8:12			1		USE	B
per0213078a	WCLCRI	CWW	2/14/2010 8:25			1		USE	C
per0213079a	1202042252	CWW	2/14/2010 8:37	952836	VARIOUS	1	LANL	USE	S
per0213080a	1202042253	CWW	2/14/2010 8:50	952836	VARIOUS	1	LANL	USE	S
per0213081a	1202042256	CWW	2/14/2010 9:03	952836	VARIOUS	1	LANL	USE	S
per0213082a	246555001	CWW	2/14/2010 9:15	952836	10-1665-1	1	LANL	USE	S
per0213083a	246560001	CWW	2/14/2010 9:28	952836	10-1670	1	LANL	USE	S
per0213084a	246571001	CWW	2/14/2010 9:40	952836	10-1673-1	1	LANL	USE	S
per0213085a	1202042254	CWW	2/14/2010 9:53	952836	10-1673-1	1	LANL	USE	S
per0213086a	1202042255	CWW	2/14/2010 10:05	952836	10-1673-1	1	LANL	USE	S
per0213087a	246571002	CWW	2/14/2010 10:18	952836	10-1673-1	1	LANL	USE	S
per0213088a	WCLCCV	CWW	2/14/2010 10:30			1		USE	C
per0213089a	IPB010	CWW	2/14/2010 10:43			1		USE	B
per0213090a	WCLCRI	CWW	2/14/2010 10:56			1		USE	C
per0213091a	246590001	CWW	2/14/2010 11:08	952836	10-1686	1	LANL	USE	S
per0213092a	246591001	CWW	2/14/2010 11:21	952836	10-1689	1	LANL	USE	S
per0213093a	246606001	CWW	2/14/2010 11:33	952836	10-1699	1	LANL	USE	S
per0213094a	246613001	CWW	2/14/2010 11:46	952836	10-1702-1	1	LANL	USE	S
per0213095a	246724001	CWW	2/14/2010 11:59	952836	10-1729-1	1	LANL	USE	S
per0213096a	246724002	CWW	2/14/2010 12:11	952836	10-1729-1	1	LANL	USE	S
per0213097a	246730001	CWW	2/14/2010 12:24	952836	10-1731	1	LANL	USE	S
per0213098a	246742001	CWW	2/14/2010 12:36	952836	10-1711-1	1	LANL	USE	S
per0213099a	WCLCCV	CWW	2/14/2010 12:49			1		USE	C
per0213100a	IPB011	CWW	2/14/2010 13:01			1		USE	B
per0213101a	WCLCRI	CWW	2/14/2010 13:14			1		USE	C
per0213102a	246742002	CWW	2/14/2010 13:26	952836	10-1711-1	1	LANL	USE	S
per0213103a	246753001	CWW	2/14/2010 13:39	952836	10-1737	1	LANL	USE	S

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per0213104a	246755001	CWW	2/14/2010 13:52	952836	10-1714-1	1	LANL	USE	S
per0213105a	246755002	CWW	2/14/2010 14:04	952836	10-1714-1	1	LANL	USE	S
per0213106a	246766001	CWW	2/14/2010 14:17	952836	10-1734	1	LANL	USE	S
per0213107a	246838001	CWW	2/14/2010 14:29	952836	10-1747-1	1	LANL	USE	S
per0213108a	246842001	CWW	2/14/2010 14:42	952836	10-1748-1	1	LANL	USE	S
per0213109a	246844001	CWW	2/14/2010 14:54	952836	10-1749-1	1	LANL	USE	S
per0213110a	WCLCCV	CWW	2/14/2010 15:07			1		USE	C
per0213111a	IPB012	CWW	2/14/2010 15:20			1		USE	B
per0213112a	WCLCRI	CWW	2/14/2010 15:32			1		USE	C

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

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

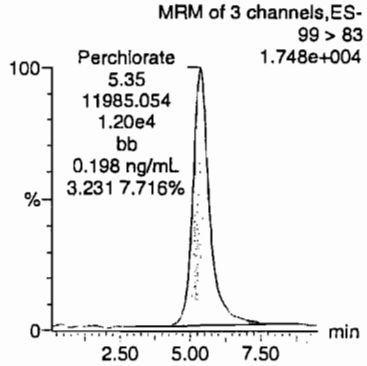
Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213085a
Date: 14-Feb-2010
Time: 09:53:16
ID: 1202042254
Vial: 3:2,A

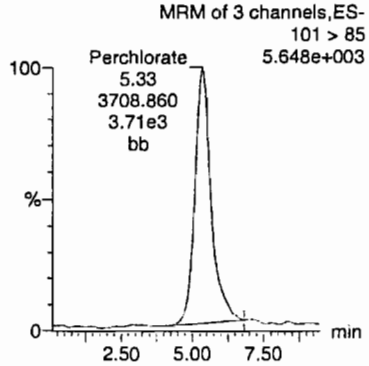
|LANL|952836|L2Q|MS|1|

WW
02-15-10

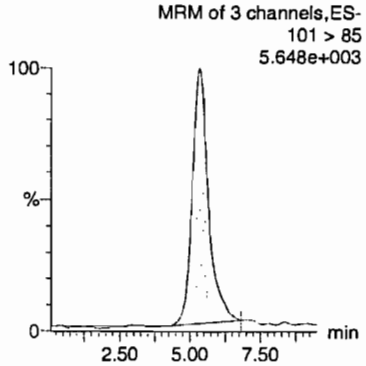
Perchlorate



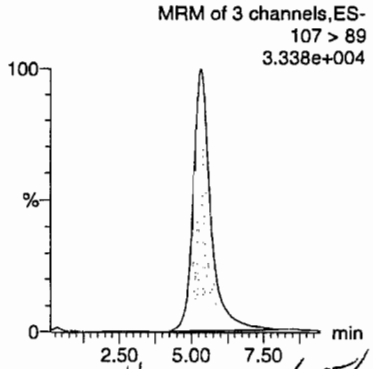
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hnme 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202042254	Perchlorate	99 > 83	5.35	11985.054	11985.054	bb			0.1981	99.07	-0.93	292.116	3.23
1202042254	Perchlorate-101	101 > 85	5.33	3708.860	3708.860	bb			0.1919	95.93	-4.07	83.595	
1202042254	Perchlorate-O(18)	107 > 89	5.31	23427.600	23427.600	bb			0.4545	90.90	-9.10	2388.6...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per021310a.qld

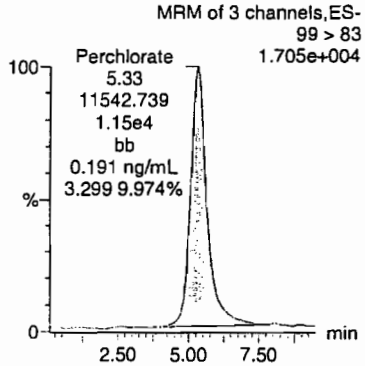
Last Altered: Sunday, February 14, 2010 4:01:53 PM Eastern Standard Time
Printed: Sunday, February 14, 2010 4:10:06 PM Eastern Standard Time

Name: per0213086a
Date: 14-Feb-2010
Time: 10:05:49
ID: 1202042255
Vial: 3:2,B

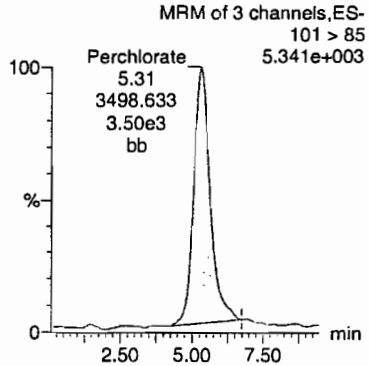
|LANL|952836|LZQ|MSD|1|

02-15-10

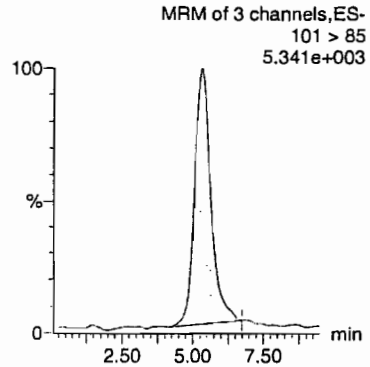
Perchlorate



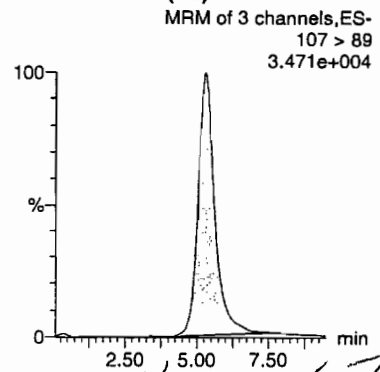
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 02/15/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202042255	Perchlorate	99 > 83	5.33	11542.739	11542.739	bb			0.1908	95.41	-4.59	352.124	3.30
1202042255	Perchlorate-101	101 > 85	5.31	3498.633	3498.633	bb			0.1810	90.50	-9.50	210.776	
1202042255	Perchlorate-O(18)	107 > 89	5.30	23335.521	23335.521	bb			0.4527	90.55	-9.45	1249.4...	

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

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

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1747

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	952679
Prep Batch Number:	952677

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987
246837005	RE15-10-7988
246837006	RE15-10-7989
1202041901	Method Blank (MB)
1202041902	Laboratory Control Sample (LCS)
1202041903	246721001(WST16-10-12253) Matrix Spike (MS)
1202041904	246721001(WST16-10-12253) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

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Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Client sample 246721001 (WST16-10-12253) from SDG 10-1709 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recovered Tetryl at 29.1%. The recovery limits are 36-124%. While the MSD met recovery limits, the spike recovery was biased low. Since similar recoveries were observed, the noted exception is attributed to sample matrix interference. The LCS met acceptance criteria; therefore, the data are reported. Please see data exception report 800398.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD for Tetryl was 30.4%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported. Please see data exception report 800398.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

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Technical Information

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

Preparation/Analytical Method Verification
Samples 246837001(RE15-10-7992), 246837002(RE15-10-7991), 246837003(RE15-10-7990), 1202041901(MB) and 1202041902(LCS) were analyzed outside of the Standard Operating Procedure for more the ten samples between CCVs. Due to an analyst oversight during sample sequencing, more than ten samples were analyzed between CCVs. The bracketing CCVs met acceptance criteria; therefore, the data is considered unaffected. The data are reported. Please see data exception report 800398.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

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QC Sample Designation
Client sample 246721001 (WST16-10-12253) from SDG 10-1709 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Samples 246837001(RE15-10-7992), 246837002(RE15-10-7991), 246837003(RE15-10-7990) were re-analyzed due to a CVS failing acceptance criteria. The re-analysis passed acceptance criteria and is reported.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 800398 was generated for this SDG.

The MS recovered Tetryl at 29.1%. The recovery limits are 36-124%. While the MSD met recovery limits, the spike recovery was biased low. Since similar recoveries were observed, the noted exception is attributed to sample matrix interference. The LCS met acceptance criteria;, therefore, the data are reported.

The MS/MSD RPD for Tetryl was 30.4%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported.

Samples 246837001(RE15-10-7992), 246837002(RE15-10-7991), 246837003(RE15-10-7990), 1202041901(MB) and 1202041902(LCS) were analyzed outside of the Standard Operating Procedure for more the ten samples between CCVs. Due to an analyst oversight during sample sequencing, more than ten samples were analyzed between CCVs. The bracketing CCVs met acceptance criteria; therefore, the data is considered unaffected. The data are reported.

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Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Heather K Maus **Date:** 03/10/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7992

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837001

Sample Amount 2

Moisture: 9.1

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304061a

Date Analyzed: 05-MAR-10 20:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7992

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837001

Sample Amount 2

Moisture: 9.1

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250052.wiff

Date Analyzed: 25-FEB-10 21:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7991

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837002

Sample Amount 2

Moisture: 29.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304062a

Date Analyzed: 05-MAR-10 21:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7991

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837002

Sample Amount 2

Moisture: 29.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250053.wiff

Date Analyzed: 25-FEB-10 22:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7990

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837003

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304063a

Date Analyzed: 05-MAR-10 21:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7990

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837003

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250054.wiff

Date Analyzed: 25-FEB-10 22:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7987

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837004

Sample Amount 2

Moisture: 34.4

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304067a

Date Analyzed: 05-MAR-10 23:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7987

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837004

Sample Amount 2

Moisture: 34.4

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250055.wiff

Date Analyzed: 25-FEB-10 22:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7988

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837005

Sample Amount 2

Moisture: 9.2

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304068a

Date Analyzed: 06-MAR-10 00:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7988

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837005

Sample Amount 2

Moisture: 9.2

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260014.wiff

Date Analyzed: 26-FEB-10 18:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7989

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837006

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304069a

Date Analyzed: 06-MAR-10 00:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7989

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837006

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260015.wiff

Date Analyzed: 26-FEB-10 18:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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

2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1747

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
246837001	RE15–10–7992	98.5	70 – 144	
246837001	RE15–10–7992	116	70 – 144	
246837002	RE15–10–7991	101	70 – 144	
246837002	RE15–10–7991	109	70 – 144	
246837003	RE15–10–7990	103	70 – 144	
246837003	RE15–10–7990	119	70 – 144	
246837004	RE15–10–7987	105	70 – 144	
246837004	RE15–10–7987	118	70 – 144	
246837005	RE15–10–7988	108	70 – 144	
246837005	RE15–10–7988	101	70 – 144	
246837006	RE15–10–7989	109	70 – 144	
246837006	RE15–10–7989	97.6	70 – 144	
1202041901	MB for batch 952677	99.6	70 – 144	
1202041901	MB for batch 952677	107	70 – 144	
1202041902	LCS for batch 952677	96.5	70 – 144	
1202041902	LCS for batch 952677	103	70 – 144	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1747

Extract Batch Code: 952677

Date Extracted: 19-FEB-10

GEL LCS ID: 1202041902

GEL LCSDUP ID:

Analysis Date/Time: 05-MAR-10 18:18

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
m-Nitrotoluene	5000	4550	91								73 – 118
2,6-Dinitrotoluene	5000	4650	92.9								89 – 120
4-Amino-2,6-dinitrotoluene	5000	5230	105								84 – 130
Nitrobenzene	5000	4670	93.3								71 – 122
m-Dinitrobenzene	5000	4640	92.8								83 – 122
Tetryl	5000	2720	54.3								51 – 112
RDX	5000	4350	87								81 – 137
PETN	5000	5420	108								64 – 137
HMX	5000	3740	74.9								58 – 138
2-Amino-4,6-dinitrotoluene	5000	5300	106								90 – 130
2,4-Dinitrotoluene	5000	4710	94.3								87 – 137
o-Nitrotoluene	5000	4590	91.7								72 – 119
1,3,5-Trinitrobenzene	5000	3930	78.6								69 – 126
2,4,6-Trinitrotoluene	5000	4920	98.3								73 – 149
p-Nitrotoluene	5000	4560	91.1								67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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

3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1747

Extract Batch Code: 952677

Date Extracted: 19–FEB–10

GEL LCS ID: 1202041902

GEL LCSDUP ID:

Analysis Date/Time: 25–FEB–10 20:33

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4–Diamino–6–nitrotoluene	5000	4530	90.6					52 – 114
2,6–Diamino–4–nitrotoluene	5000	5700	114					64 – 122
TATB	5000	6480	130					28 – 162
3,5–Dinitroaniline	5000	4930	98.6					70 – 127
tris(o–cresyl) phosphate	5000	5020	100					84 – 119

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: WST16-10-12253

Lab Code: GEL

GEL Job No (SDG) 10-1747

Extract Batch Code: 952677

Date Extracted: 19-FEB-10

GEL Spike ID: 1202041903

GEL SpikeDup ID: 1202041904

Analysis Date/Time: 05-MAR-10 19:17

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
o-Nitrotoluene	5000	0	4860	97.2	4740	94.8	2.5	30	69 – 123
2-Amino-4,6-dinitrotoluene	5000	133	5730	112	5380	105	6.29	30	85 – 137
HMX	5000	121	4170	81	4420	86.1	5.94	30	51 – 144
PETN	5000	0	5630	113	5300	106	6.07	30	60 – 140
m-Nitrotoluene	5000	0	4880	97.6	4690	93.9	3.87	30	70 – 120
m-Dinitrobenzene	5000	0	4590	91.8	4910	98.2	6.7	30	85 – 118
Tetryl	5000	0	1450	29.1 *	1980	39.5	30.4 *	30	36 – 124
RDX	5000	105	5090	99.8	5360	105	5.11	30	59 – 152
Nitrobenzene	5000	0	4950	98.9	4620	92.4	6.77	30	70 – 122
4-Amino-2,6-dinitrotoluene	5000	60.3	5390	107	5410	107	.371	30	72 – 143
2,6-Dinitrotoluene	5000	0	4660	93.1	4720	94.4	1.38	30	90 – 118
1,3,5-Trinitrobenzene	5000	0	4000	80.1	4050	81	1.21	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	4730	94.5	5030	101	6.16	30	76 – 144
2,4-Dinitrotoluene	5000	0	4730	94.6	4950	99.1	4.55	30	86 – 135
p-Nitrotoluene	5000	0	4910	98.3	4850	97	1.33	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: WST16-10-12253

Lab Code: GEL

GEL Job No (SDG) 10-1747

Extract Batch Code: 952677

Date Extracted: 19-FEB-10

GEL Spike ID: 1202041903

GEL SpikeDup ID: 1202041904

Analysis Date/Time: 25-FEB-10 21:04

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	5170	103	5070	101	1.95	26	34 - 135
tris(o-cresyl) phosphate	5000	0	4850	97	5050	101	4.04	30	72 - 127
2,6-Diamino-4-nitrotoluene	5000	0	5030	101	5280	106	4.85	30	55 - 130
3,5-Dinitroaniline	5000	0	5440	109	5560	111	2.18	30	73 - 129
TATB	5000	0	6920	138	7060	141	2	30	29 - 155

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04–MAR–10 15:16

GEL Data File: EXP0304001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	607.958
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	536.234
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

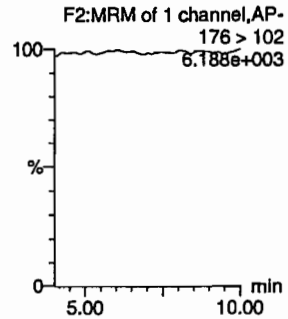
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010
Calibration: Untitled, Time: Fri Mar 05 10:16:18 2010

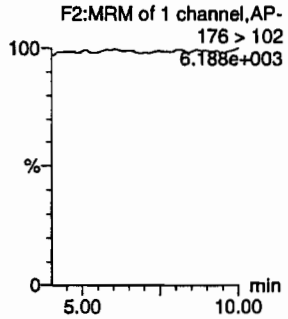
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304001a
Date: 04-Mar-2010
Time: 15:16:39
ID: XIBLK01
Vial: 1:1,A

MAP 3/6/10

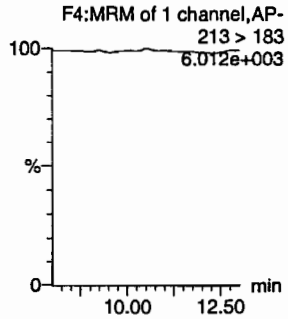
HMX



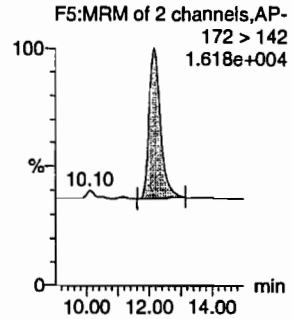
RDX



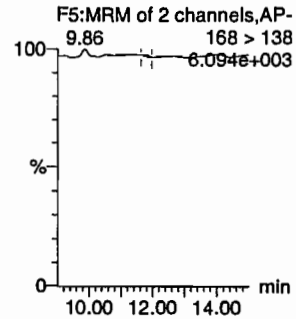
135-Trinitrobenzene



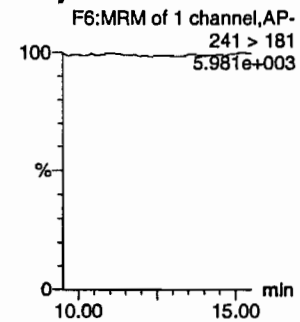
13-Dinitrobenzene-d4



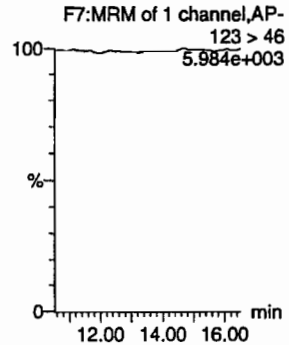
13-Dinitrobenzene



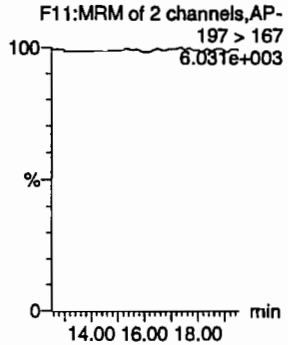
Tetryl



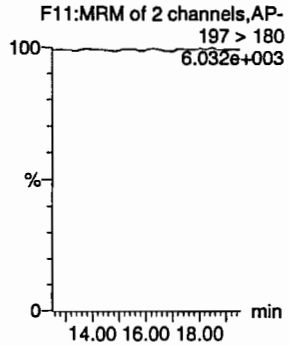
Nitrobenzene



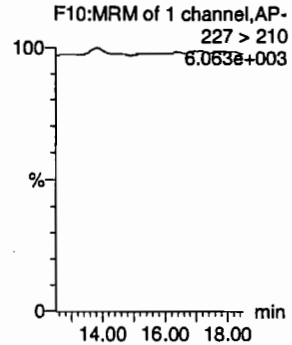
4-Amino-26-dinitrotoluene



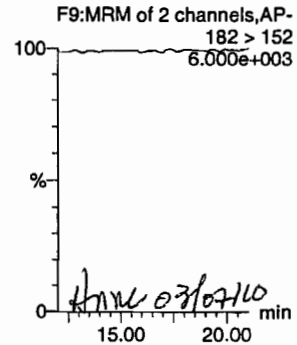
2-Amino-46-dinitrotoluene



246-Trinitrotoluene

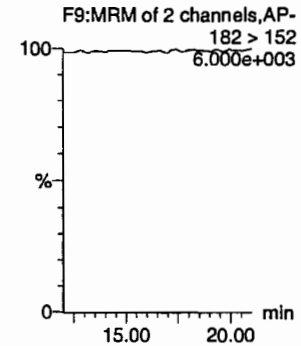


34-dinitrotoluene



HMC 03/07/10

26-dinitrotoluene



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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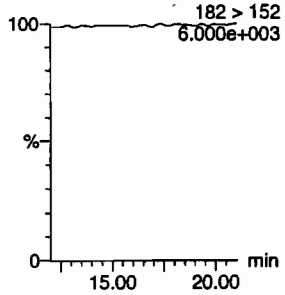
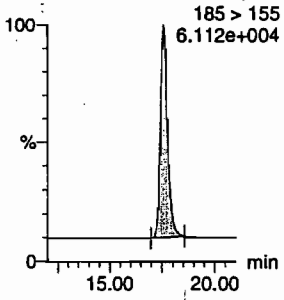
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

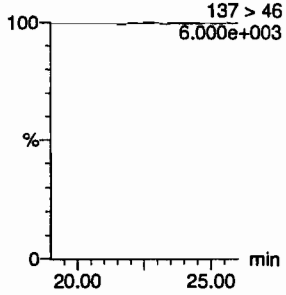
24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.000e+003



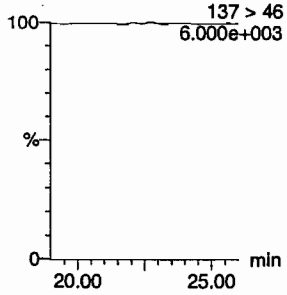
26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
6.112e+004



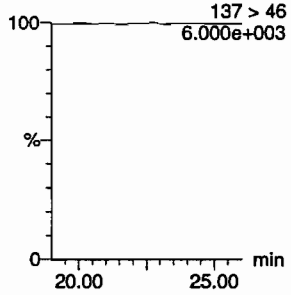
2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.000e+003



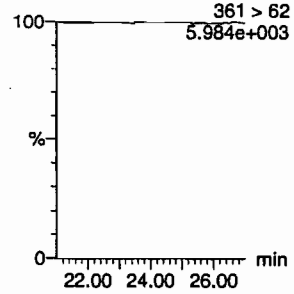
4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.000e+003



3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.000e+003



PETN
F13:MRM of 1 channel,AP-
361 > 62
5.984e+003



ID	Name	Trace	HT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			4270.042									
XIBLK01	RDX	176 > 102			4270.042									
XIBLK01	135-Trinitrobenzene	213 > 183			4270.042									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.14	4270.042		4270.042	4270.042	bb			607.9583	121.6	21.6	332.0
XIBLK01	13-Dinitrobenzene	168 > 138			4270.042			MM-	05-Mar-10	10:02:47				
XIBLK01	Tetryl	241 > 181			4270.042									
XIBLK01	Nitrobenzene	123 > 46			4270.042									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			22050.561									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			22050.561									
XIBLK01	246-Trinitrotoluene	227 > 210			22050.561									
XIBLK01	34-dinitrotoluene	182 > 152			22050.561									
XIBLK01	26-dinitrotoluene	182 > 152			22050.561									
XIBLK01	24-dinitrotoluene	182 > 152			22050.561									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.60	22050.561		22050.561	22050.561	bb			536.2338	107.2	7.2	2058.0
XIBLK01	2-Nitrotoluene	137 > 46			22050.561									
XIBLK01	4-Nitrotoluene	137 > 46			22050.561									
XIBLK01	3-Nitrotoluene	137 > 46			22050.561									
XIBLK01	PETN	361 > 62			22050.561									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1747

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04-MAR-10 15:46

GEL Data File: EXP0304002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	579.131
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	573.881
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

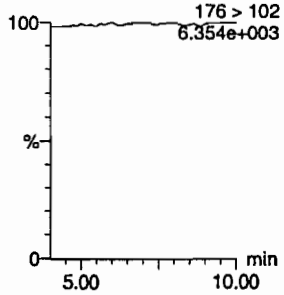
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

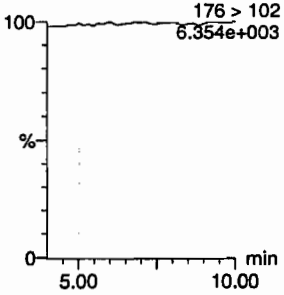
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304002a
Date: 04-Mar-2010
Time: 15:46:08
ID: XIBLK01
Vial: 1:1,A

MMP 3/6/10

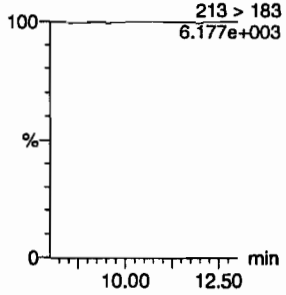
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.354e+003



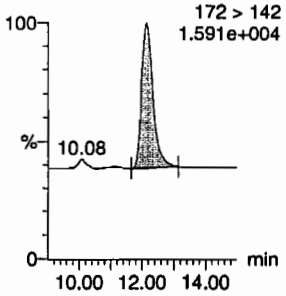
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.354e+003



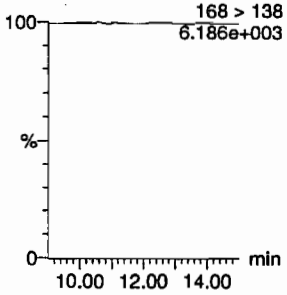
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.177e+003



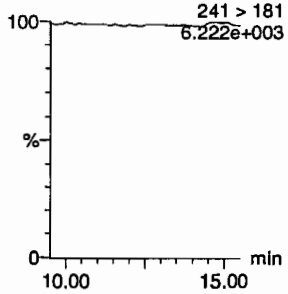
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.591e+004



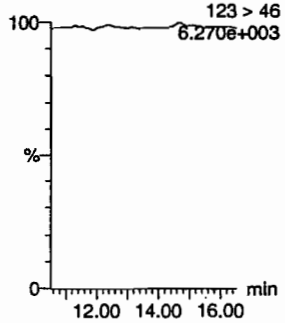
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.186e+003



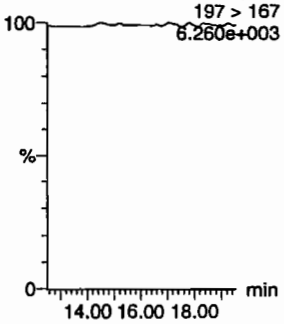
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.222e+003



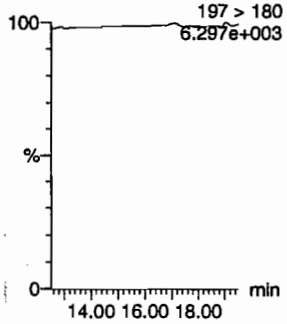
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.270e+003



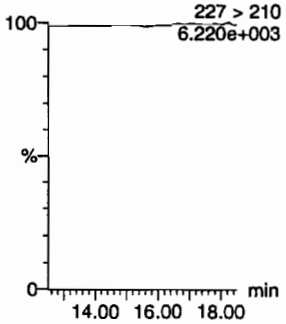
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.260e+003



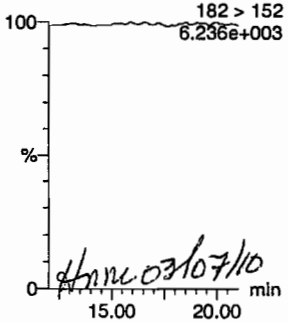
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.297e+003



246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.220e+003

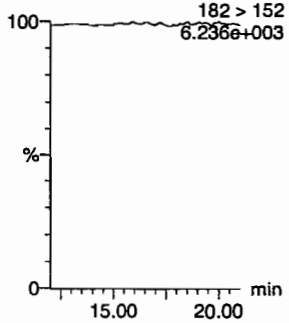


34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.236e+003



HMM 03/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.236e+003



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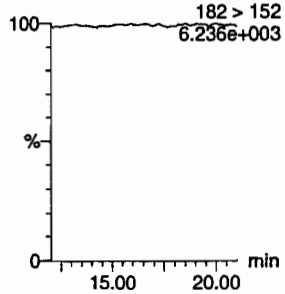
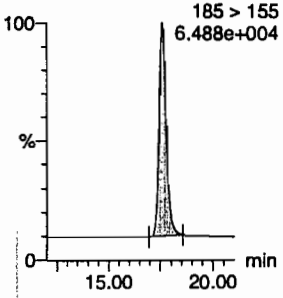
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

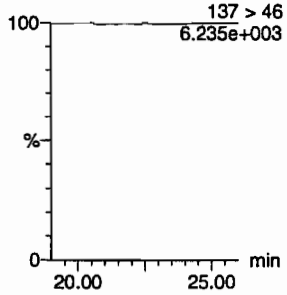
24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.236e+003



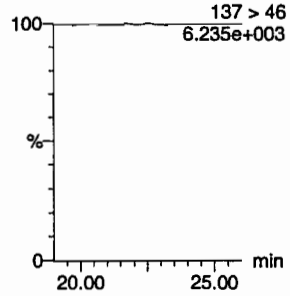
26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
6.488e+004



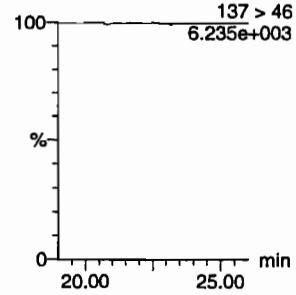
2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.235e+003



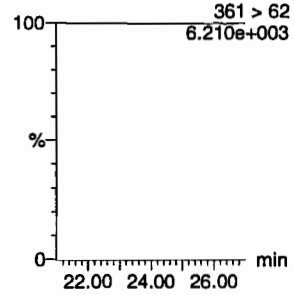
4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.235e+003



3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.235e+003



PETN
F13:MRM of 1 channel,AP-
361 > 62
6.210e+003



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			4067.572									
XIBLK01	RDX	176 > 102			4067.572									
XIBLK01	135-Trinitrobenzene	213 > 183			4067.572									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.14	4067.572		4067.572	4067.572	bb			579.1311	115.8	15.8	625.2
XIBLK01	13-Dinitrobenzene	168 > 138			4067.572									
XIBLK01	Tetryl	241 > 181			4067.572									
XIBLK01	Nitrobenzene	123 > 46			4067.572									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			23598.654									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			23598.654									
XIBLK01	246-Trinitrotoluene	227 > 210			23598.654									
XIBLK01	34-dinitrotoluene	182 > 152			23598.654									
XIBLK01	26-dinitrotoluene	182 > 152			23598.654									
XIBLK01	24-dinitrotoluene	182 > 152			23598.654									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.60	23598.654		23598.654	23598.654	bb			573.8809	114.8	14.8	787.1
XIBLK01	2-Nitrotoluene	137 > 46			23598.654									
XIBLK01	4-Nitrotoluene	137 > 46			23598.654									
XIBLK01	3-Nitrotoluene	137 > 46			23598.654									
XIBLK01	PETN	361 > 62			23598.654									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 25–FEB–10 08:29

GEL Data File: EXS02250001.wiff

Instrument ID: LCMSMS

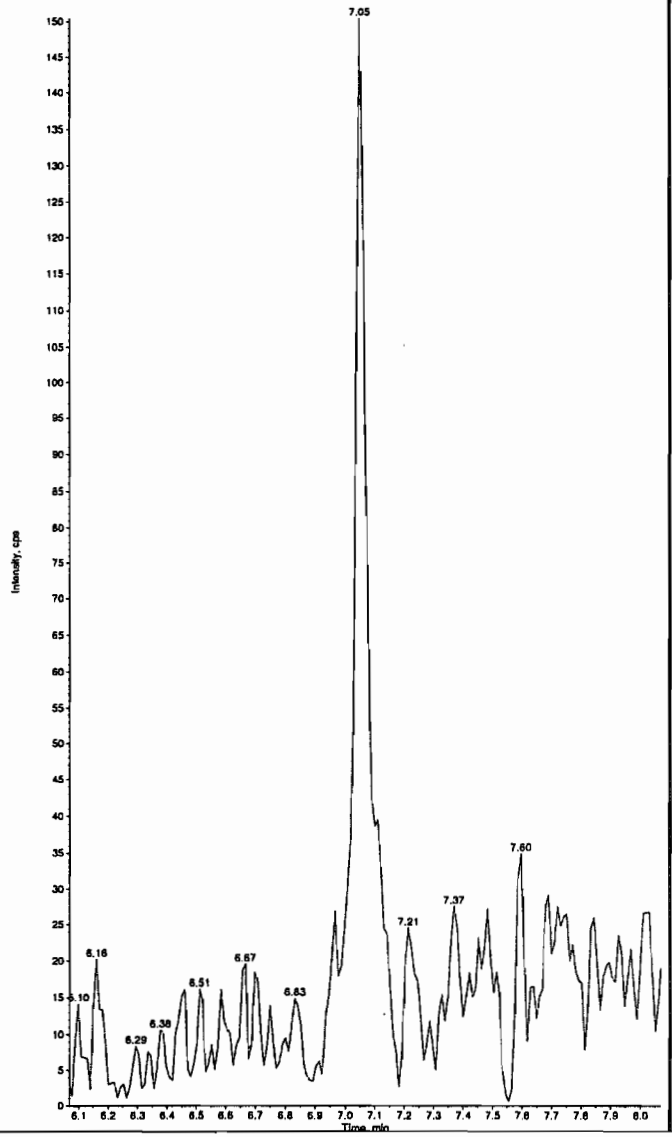
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.68
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sam 2/26/10

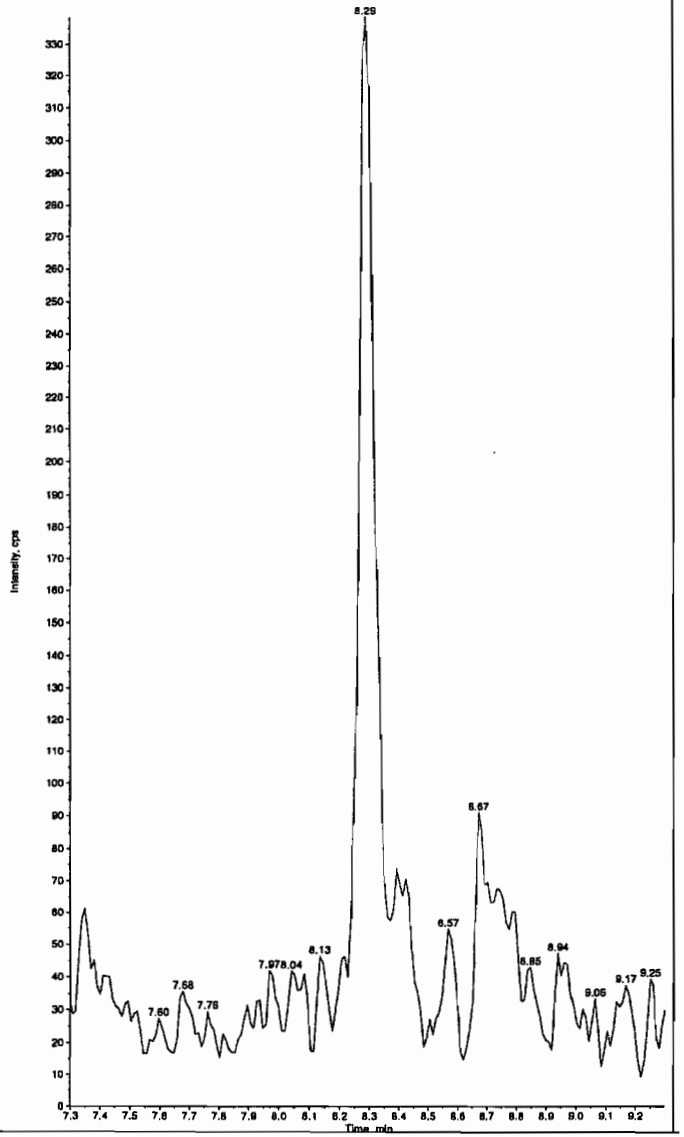
Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02250001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:29:42 AM

Modified: No



Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02250001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:29:42 AM

Modified: No



Hm 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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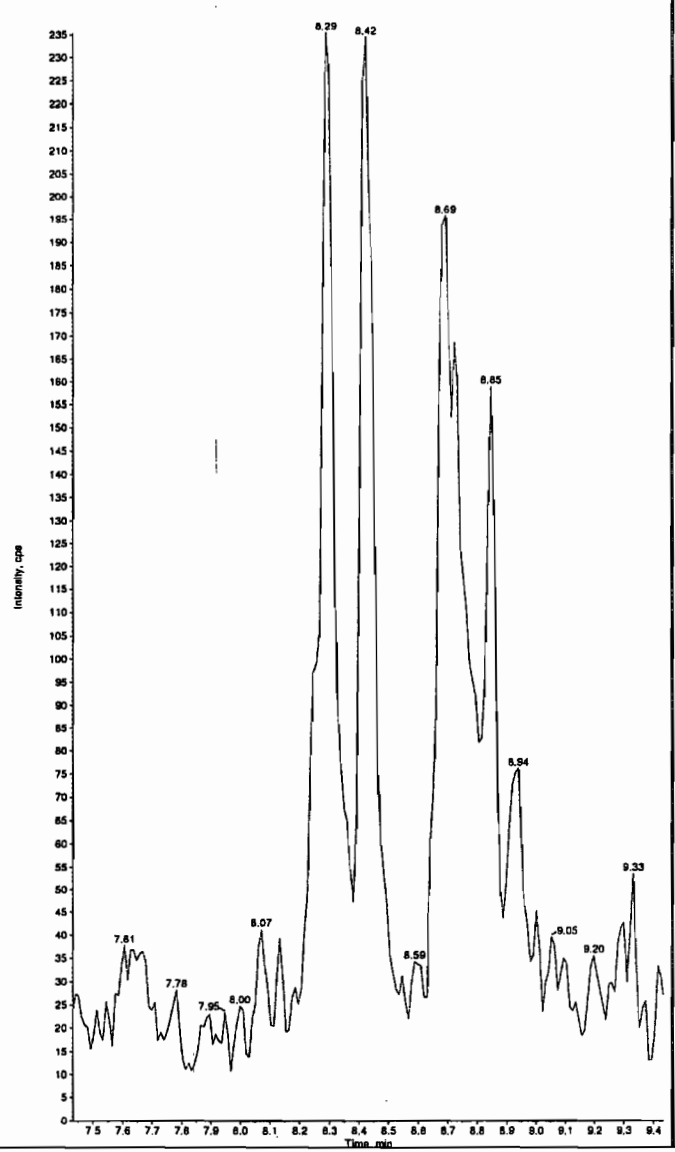
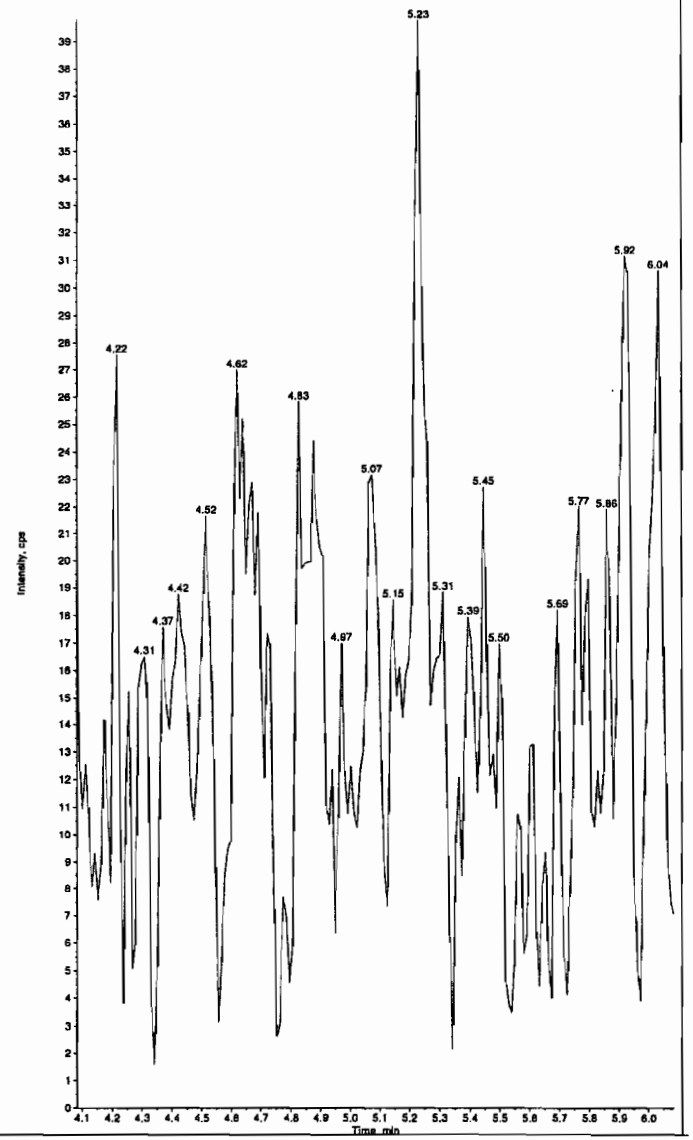
Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02250001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:29:42 AM

Modified: No



Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02250001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:29:42 AM

Modified: No



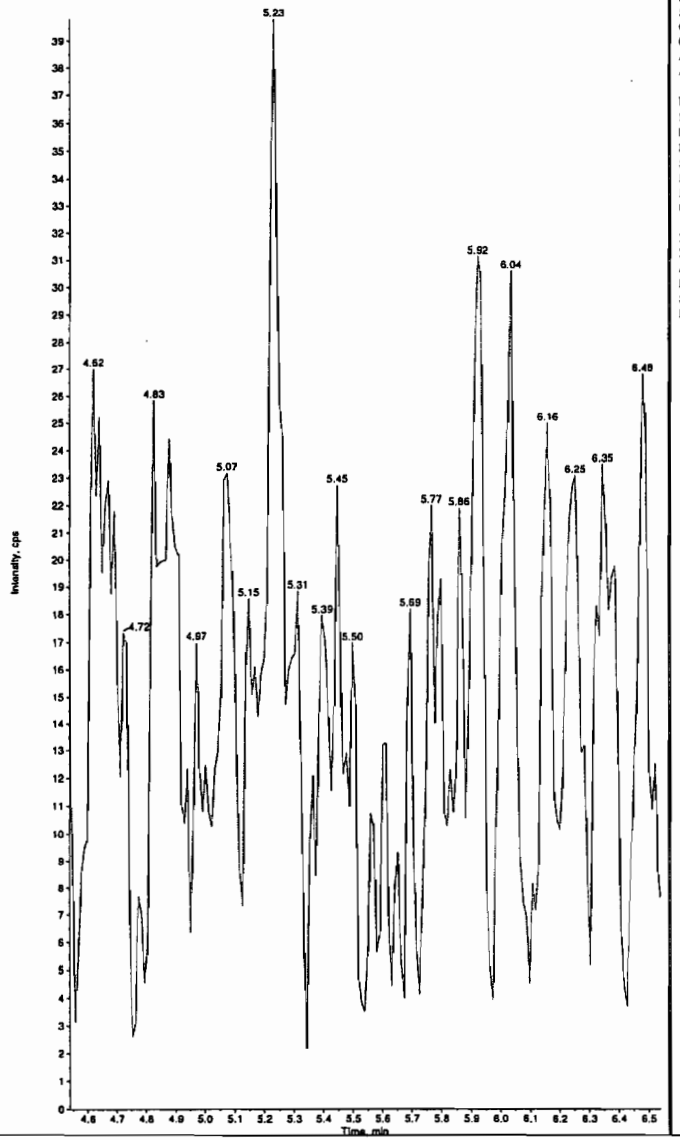
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02250001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:29:42 AM

Modified: No

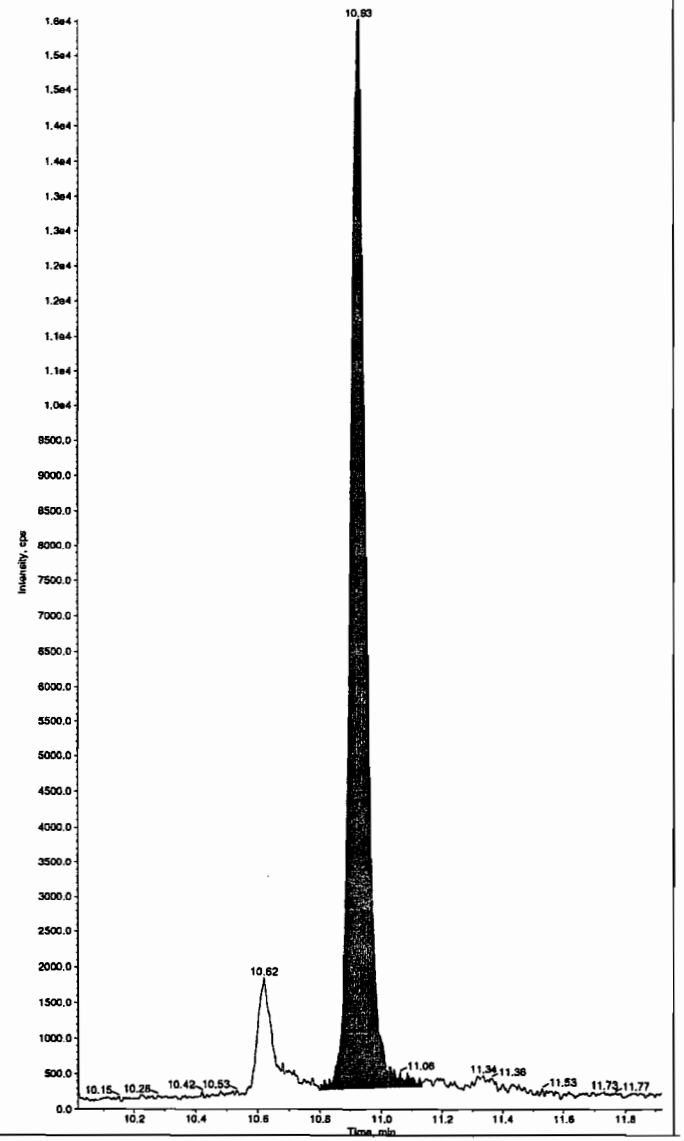


Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02250001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.68 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:29:42 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.64e+004 counts
Height: 15234.831 cps
Start Time: 10.8 min
End Time: 11.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 25–FEB–10 08:45

GEL Data File: EXS02250002.wiff

Instrument ID: LCMSMS

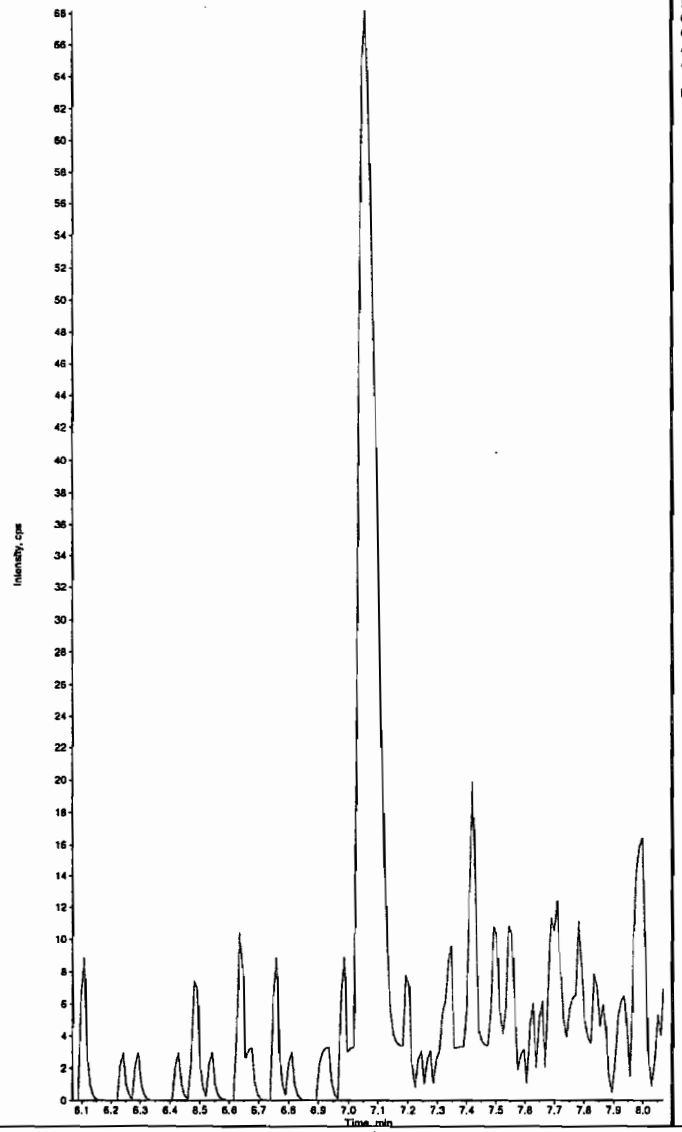
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.32
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCR 2/26/10

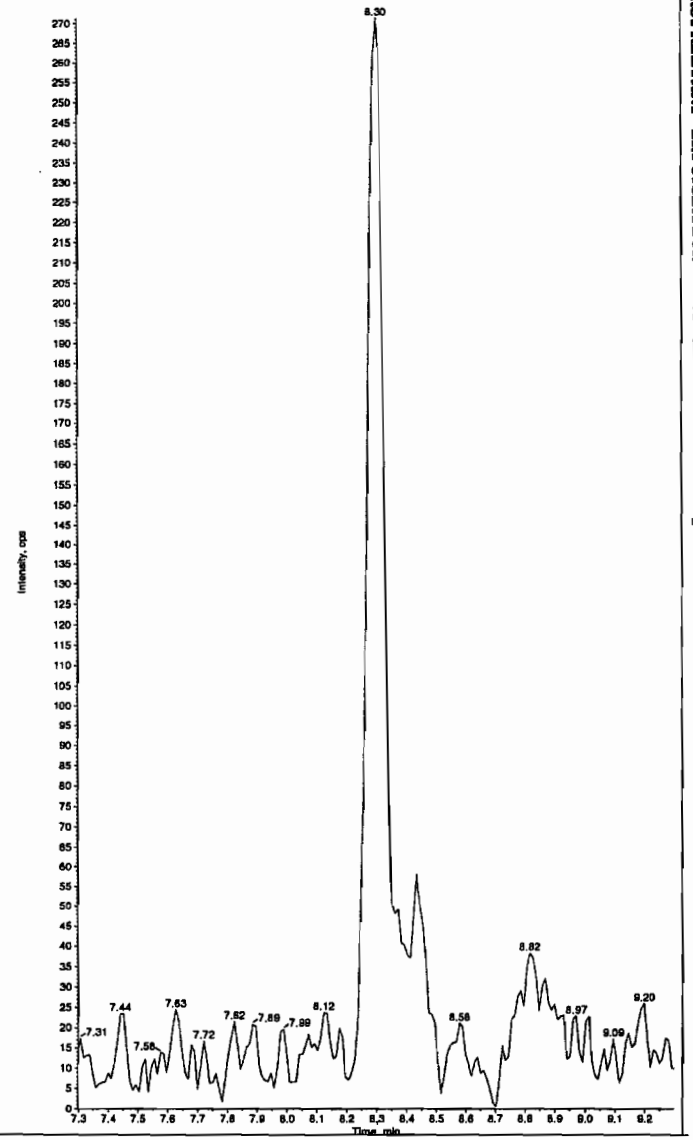
Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02250002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:45:30 AM

Modified: No



Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02250002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:45:30 AM

Modified: No



AMM 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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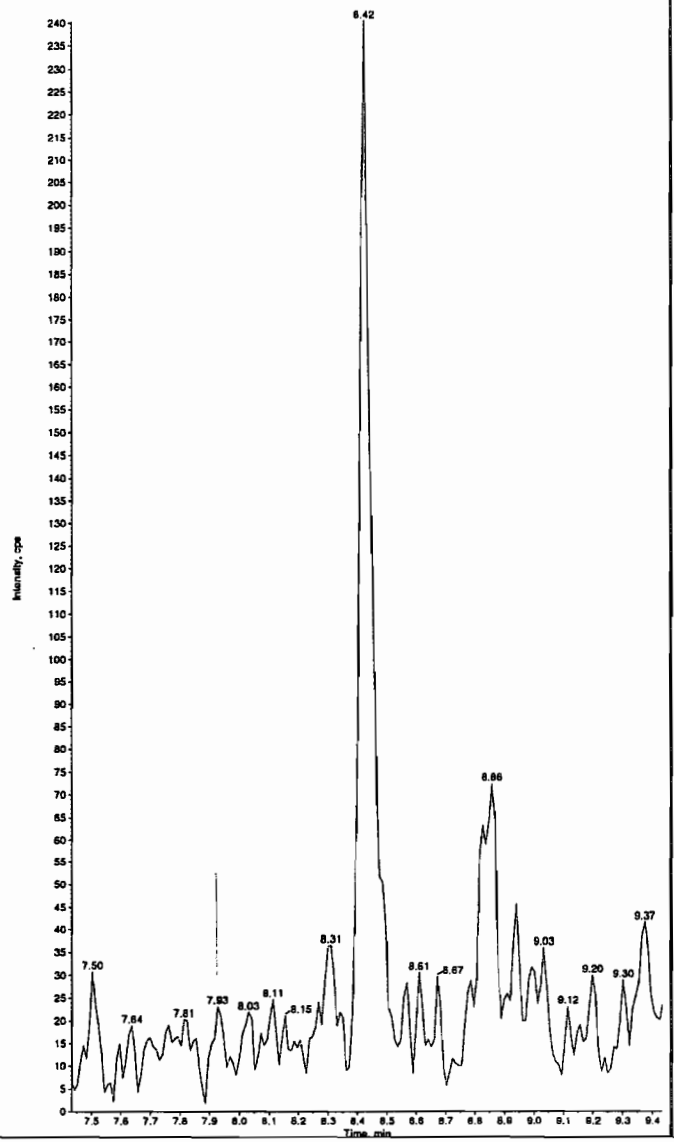
Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02250002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:45:30 AM

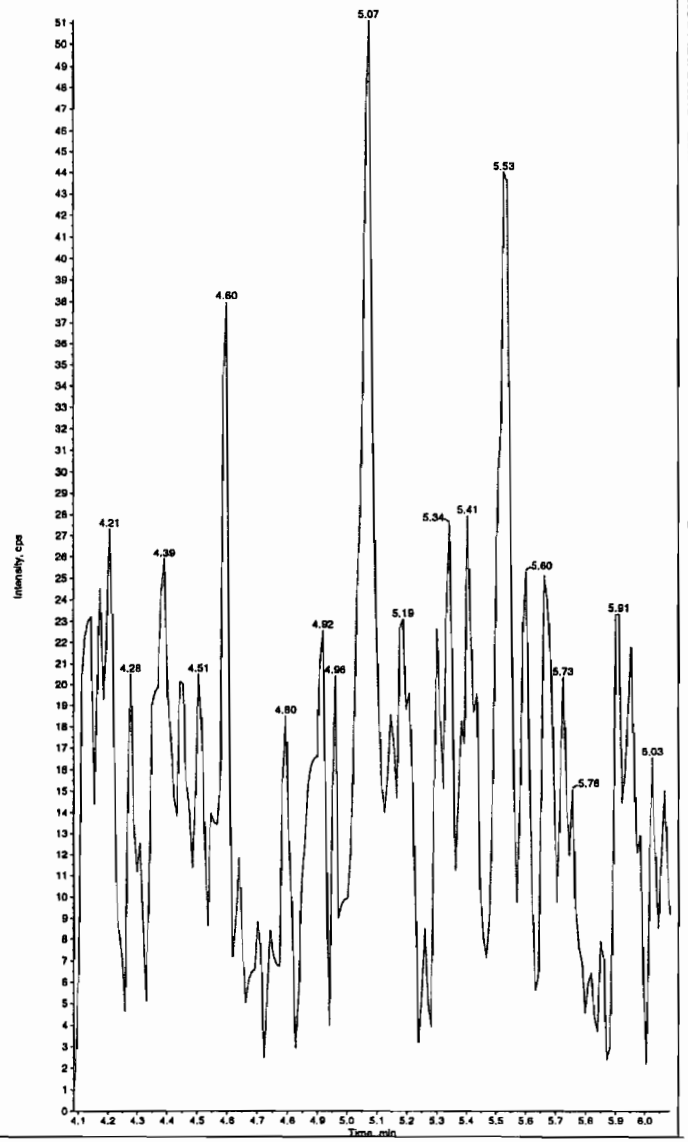
Modified: No



Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02250002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:45:30 AM

Modified: No



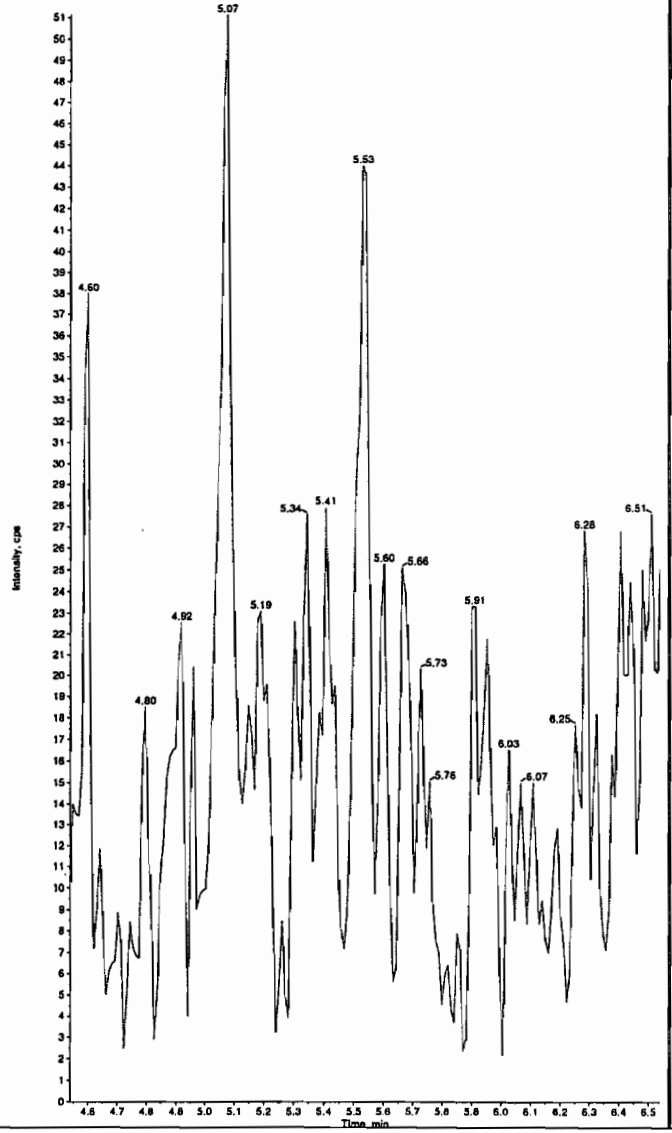
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02250002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:45:30 AM

Modified: No

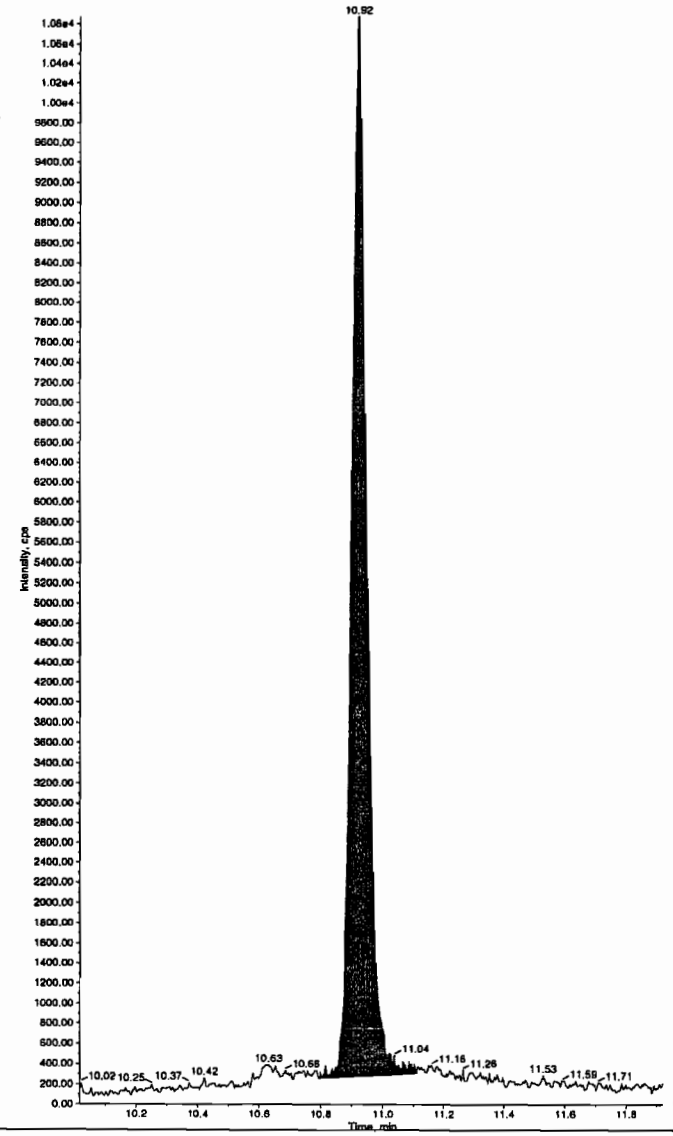


Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02250002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.32 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:45:30 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.83e+004 counts
Height: 10590.613 cps
Start Time: 10.8 min
End Time: 11.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 26–FEB–10 14:53

GEL Data File: EXS02260001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

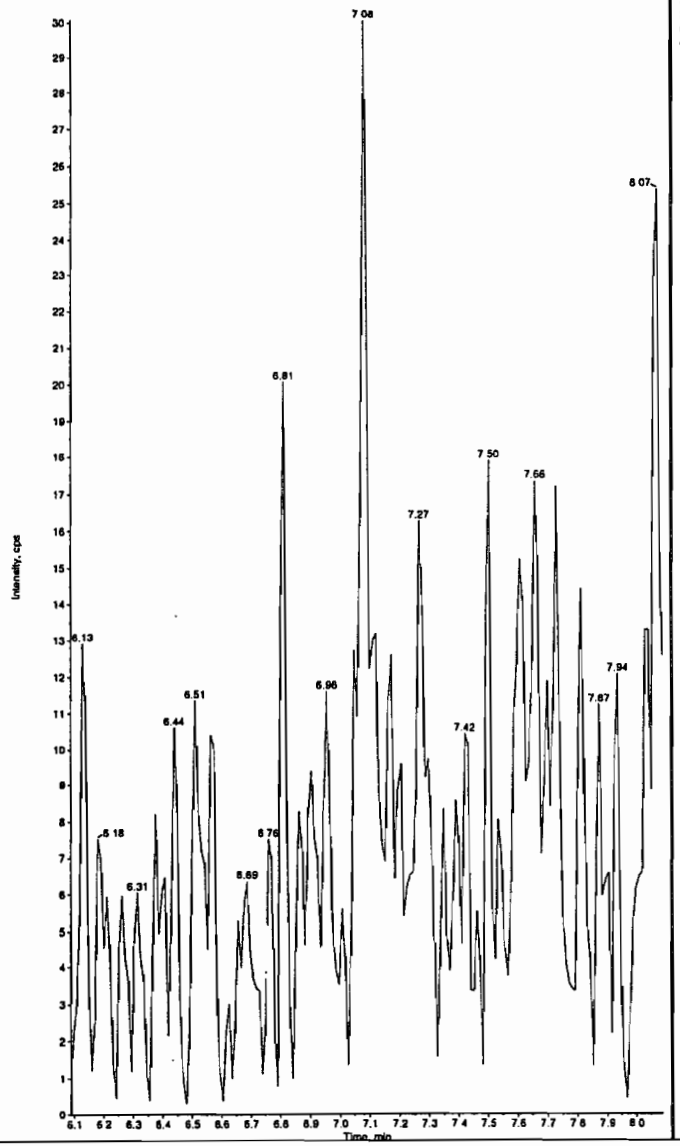
Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lar 3/1/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

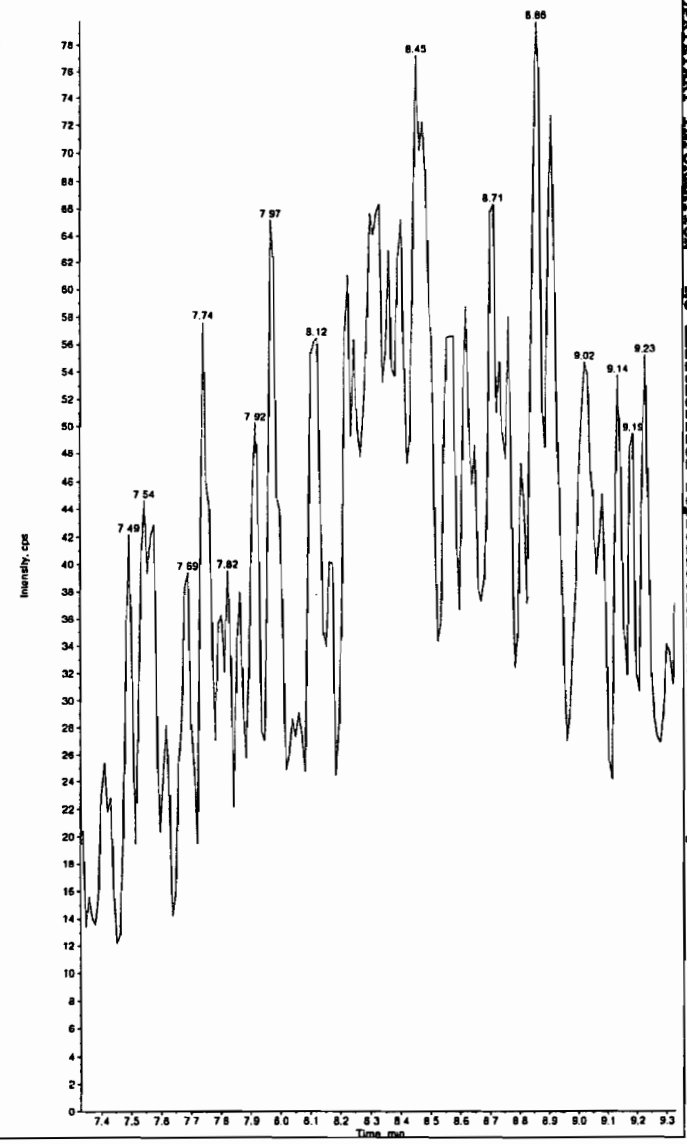
Modified: No



Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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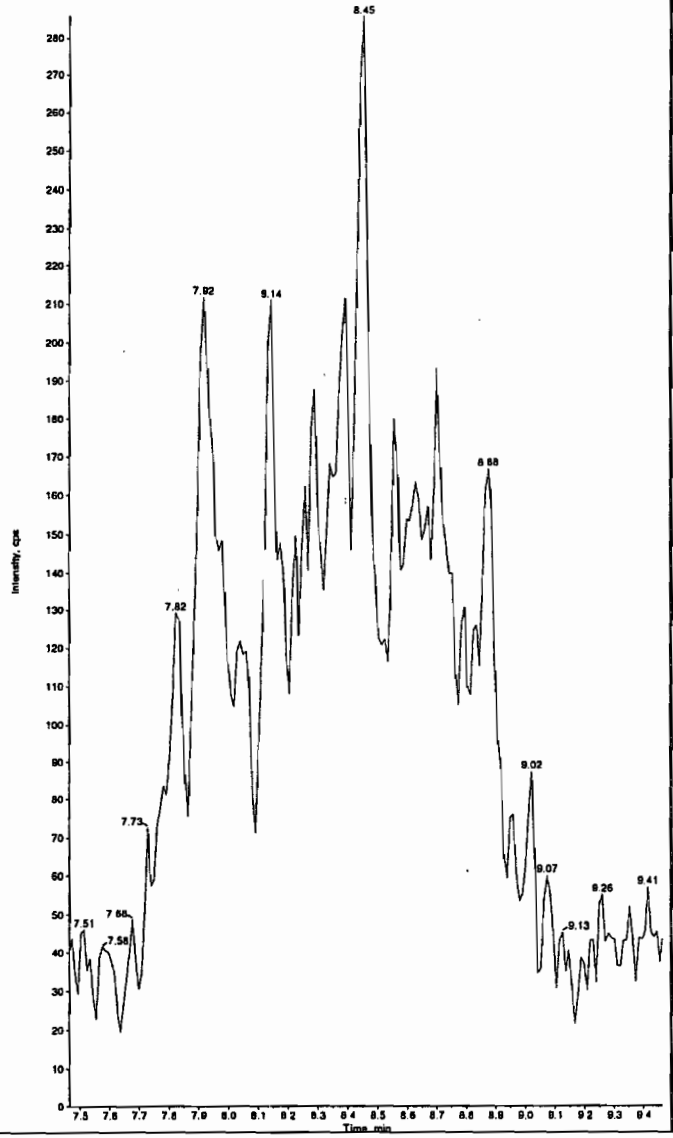
Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

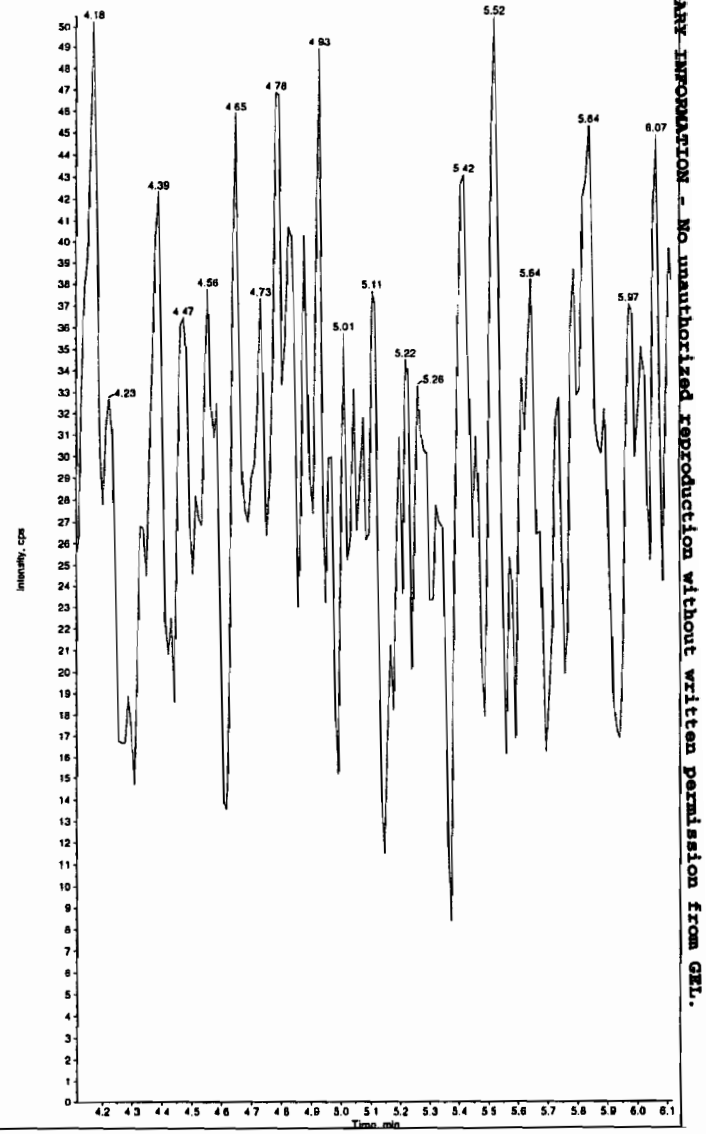
Modified: No



Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No



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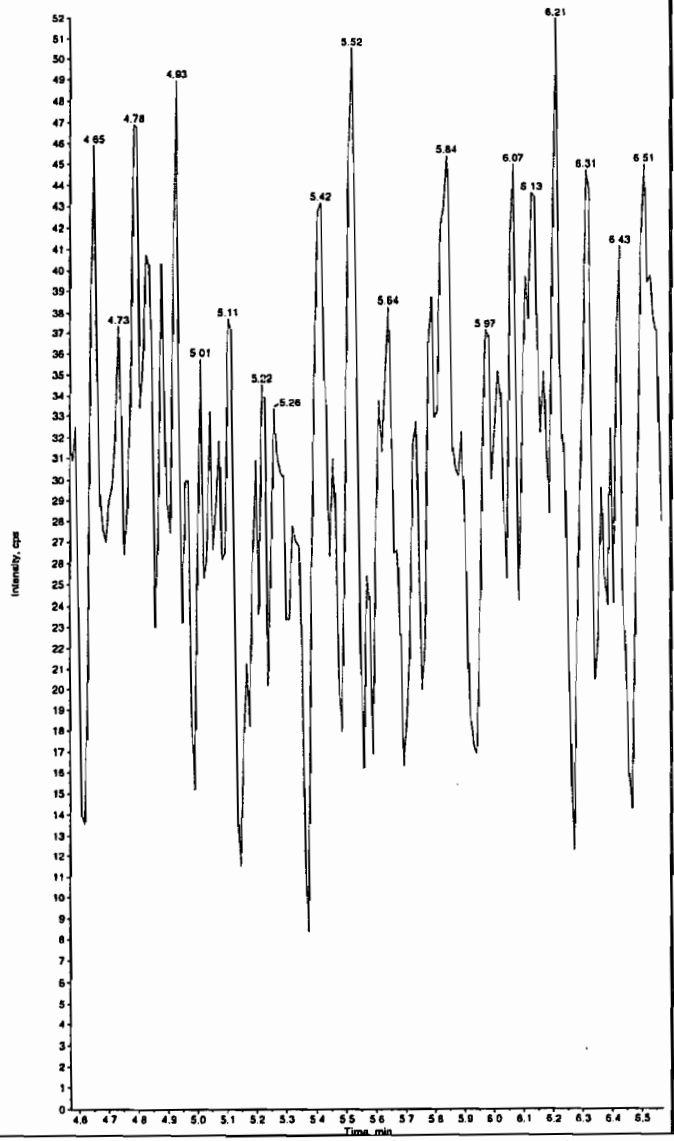
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

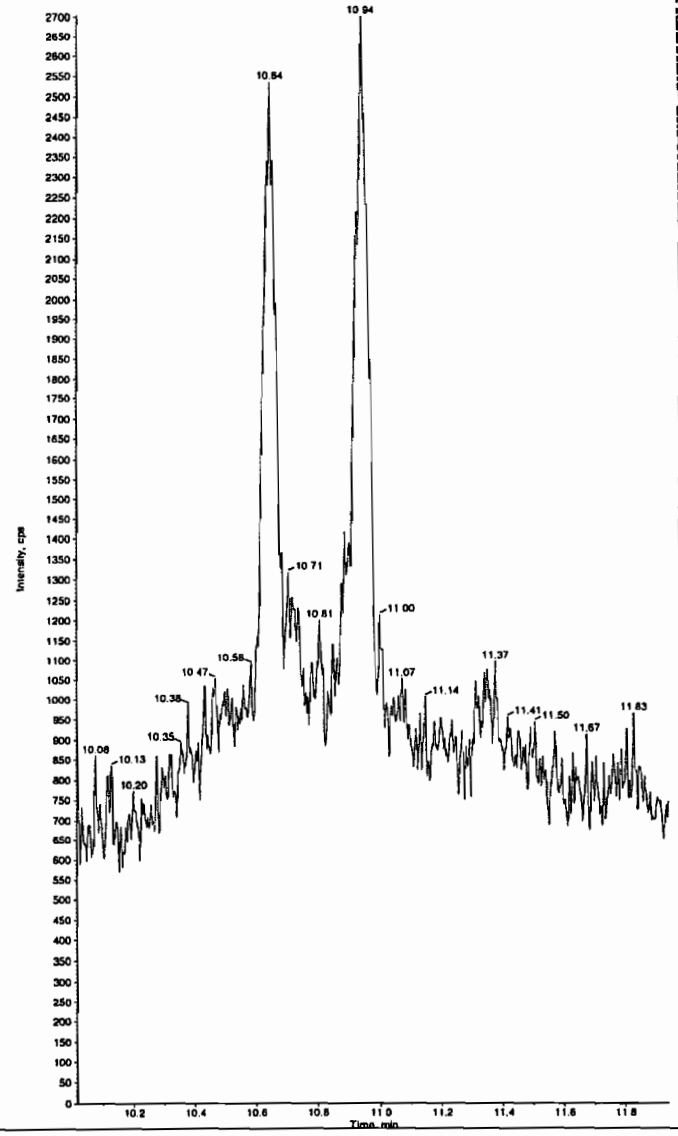
Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No



Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 26–FEB–10 15:09

GEL Data File: EXS02260002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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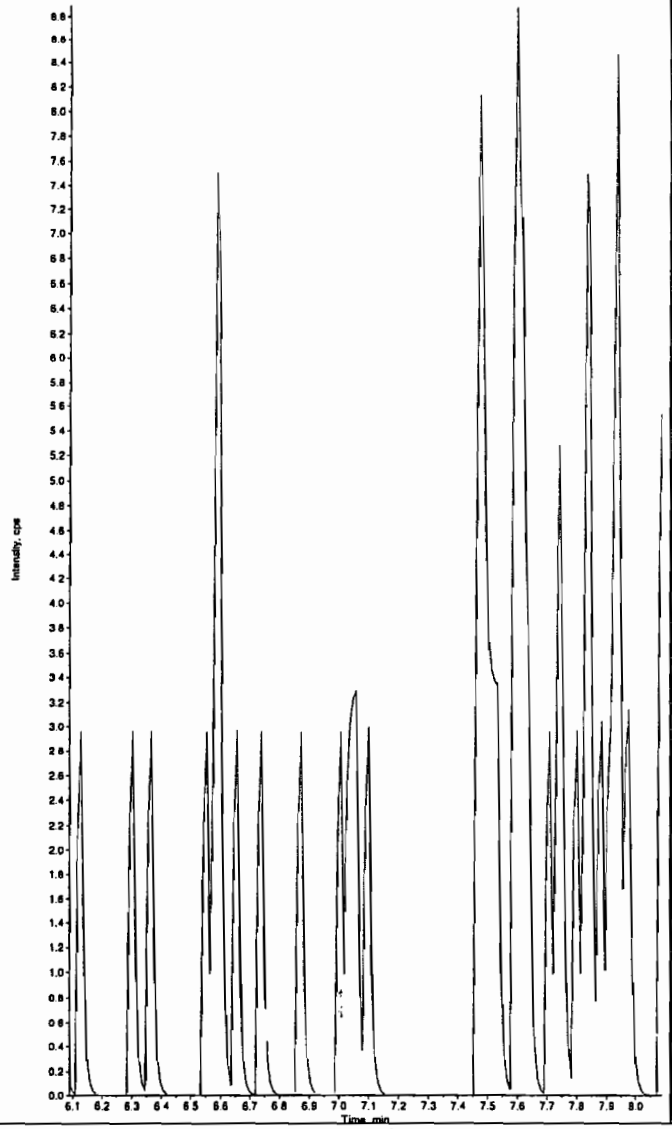
Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

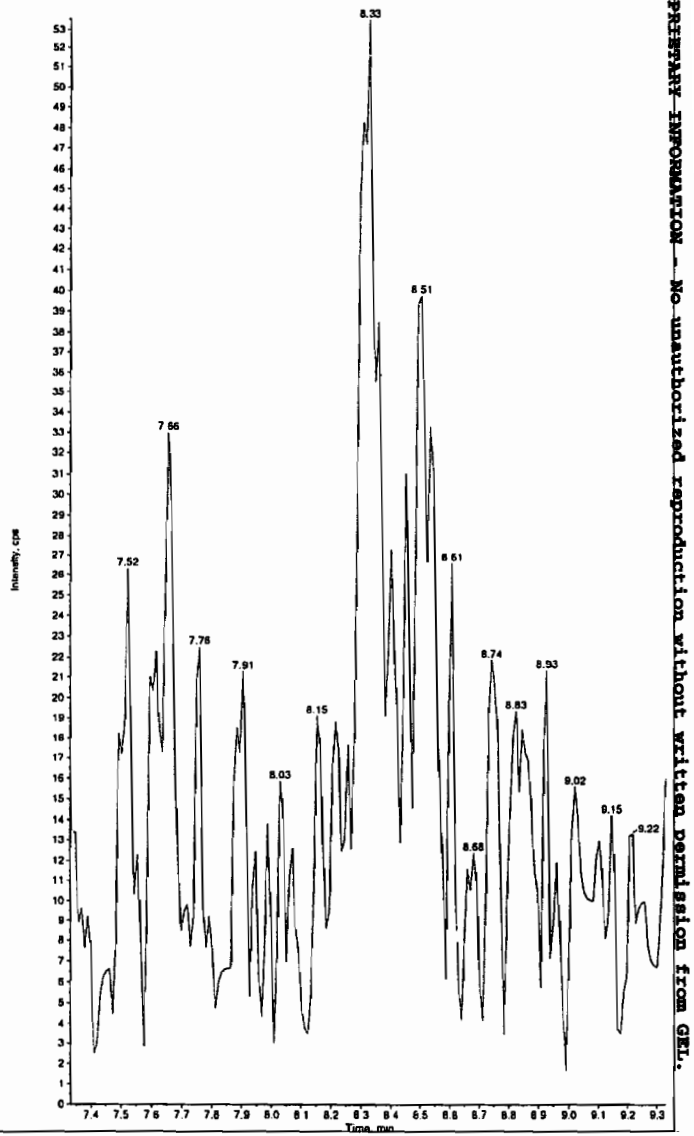
Modified: No



Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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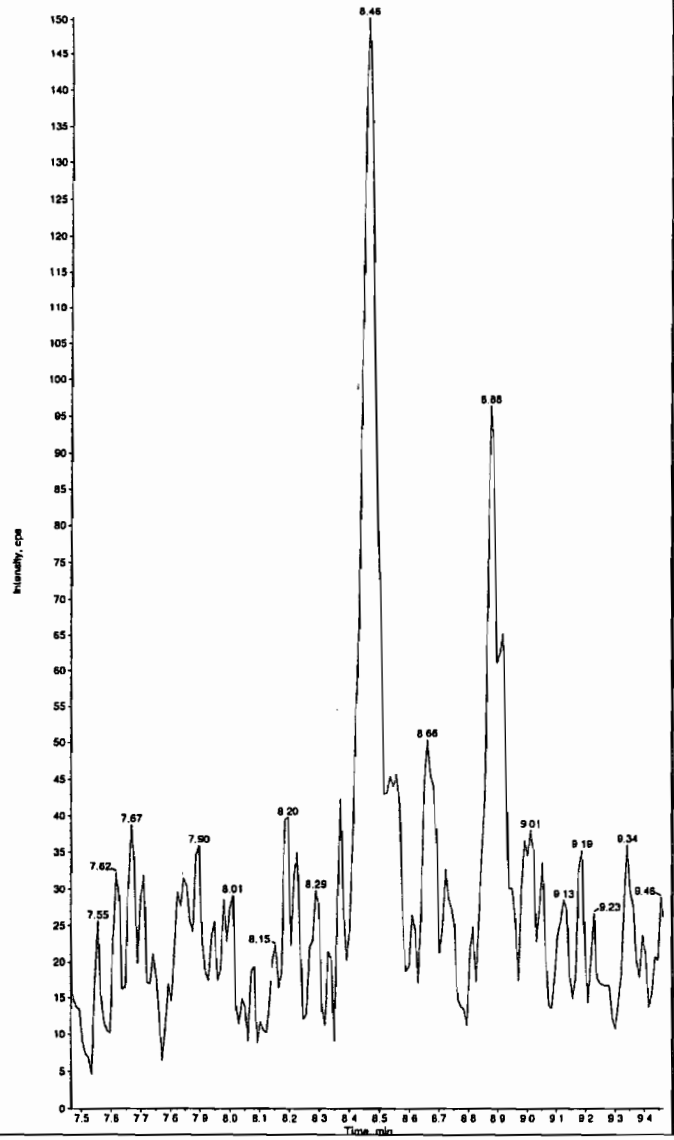
Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

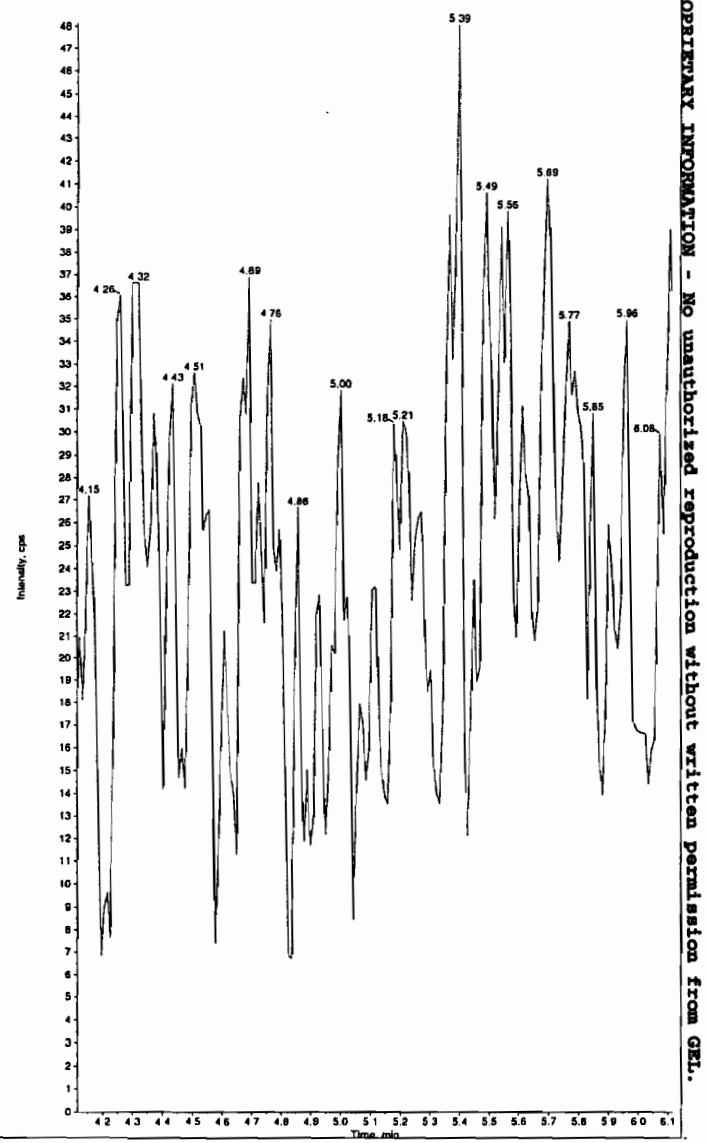
Modified: No



Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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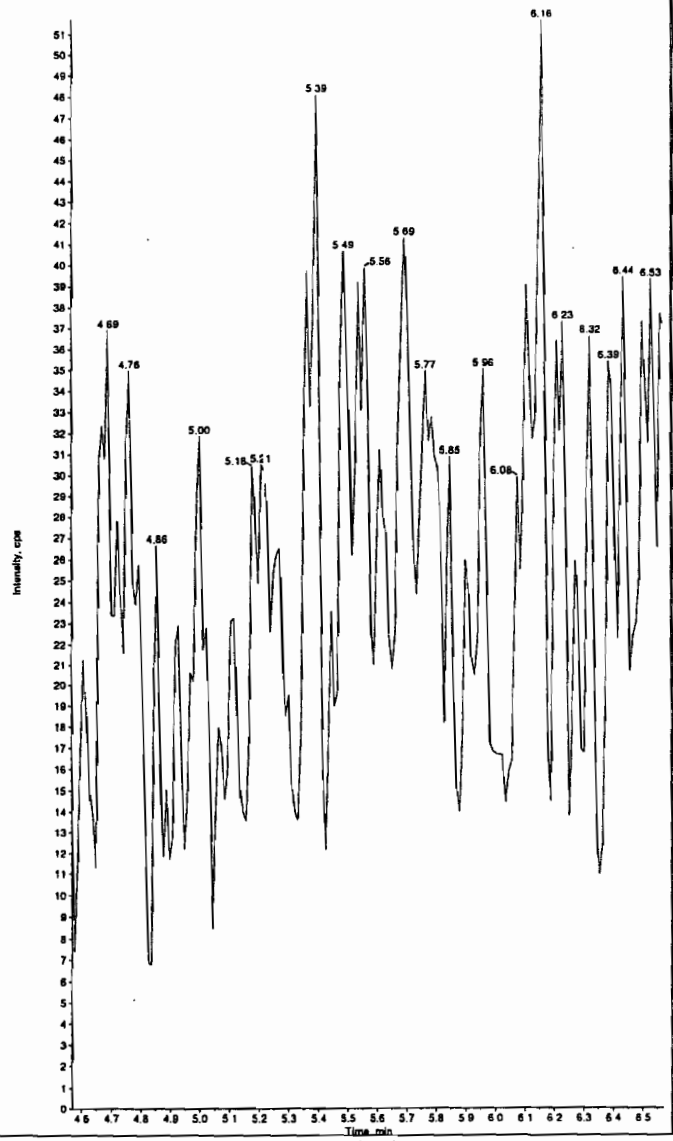
PROPRIETARY INFORMATION — No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

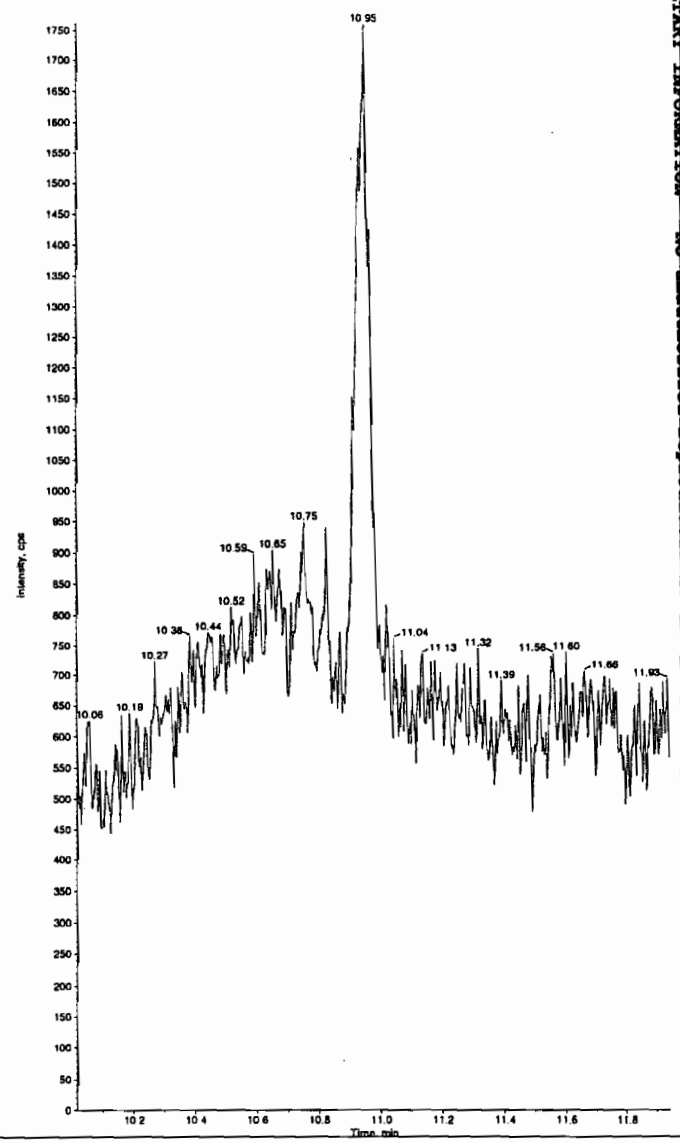
Modified: No



Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 04–MAR–10 19:12

GEL Data File: EXP0304009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	522.148
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	519.283
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0

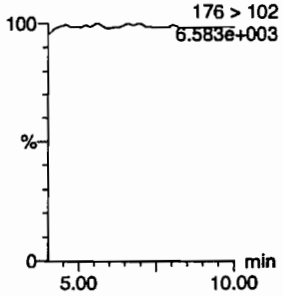
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

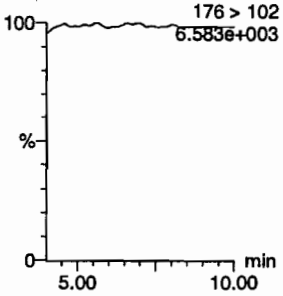
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304009a
Date: 04-Mar-2010
Time: 19:12:28
ID: XIBLK02
Vial: 1:1,A

MM 3/6/10

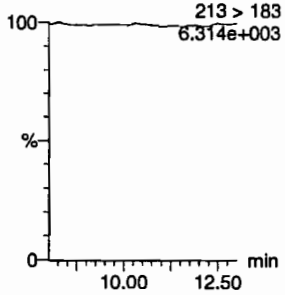
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.583e+003



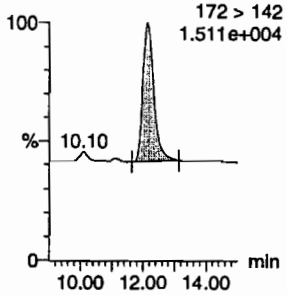
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.583e+003



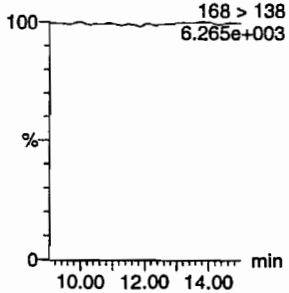
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.314e+003



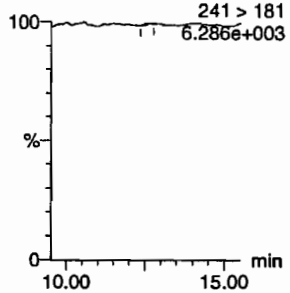
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.511e+004



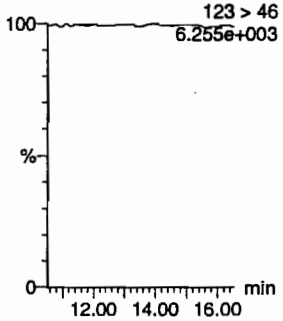
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.265e+003



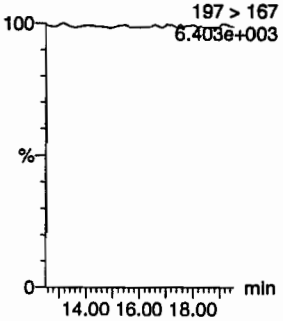
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.286e+003



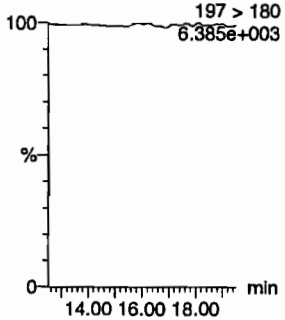
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.255e+003



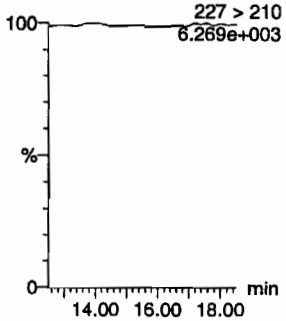
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.403e+003



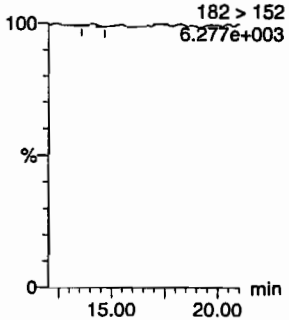
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.385e+003



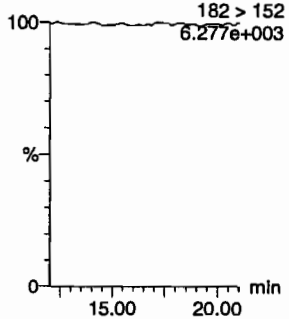
246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.269e+003



34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.277e+003



26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.277e+003



HMW 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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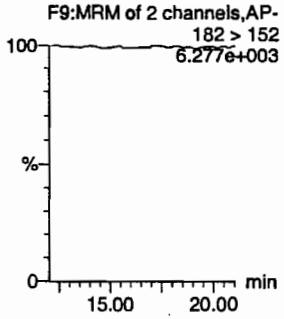
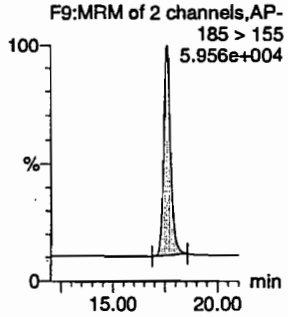
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

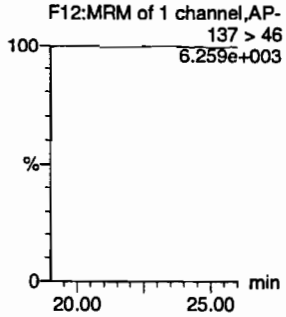
24-dinitrotoluene



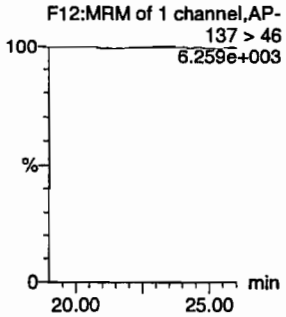
26-dinitrotoluene-d3



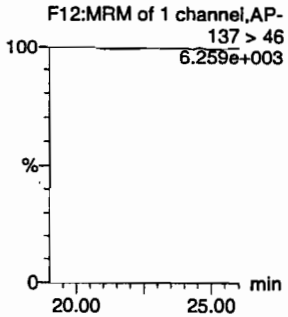
2-Nitrotoluene



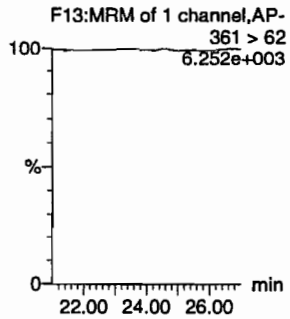
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			3667.345									
XIBLK02	RDX	176 > 102			3667.345									
XIBLK02	135-Trinitrobenzene	213 > 183			3667.345									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.14	3667.345		3667.345	3667.345	bb			522.1477	104.4	4.4	148.9
XIBLK02	13-Dinitrobenzene	168 > 138			3667.345									
XIBLK02	Tetryl	241 > 181			3667.345			MM-	05-Mar-10	10:04:00				
XIBLK02	Nitrobenzene	123 > 46			3667.345									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			21353.541									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			21353.541									
XIBLK02	246-Trinitrotoluene	227 > 210			21353.541									
XIBLK02	34-dinitrotoluene	182 > 152			21353.541			MM-	05-Mar-10	10:08:28				
XIBLK02	26-dinitrotoluene	182 > 152			21353.541									
XIBLK02	24-dinitrotoluene	182 > 152			21353.541									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.58	21353.541		21353.541	21353.541	bb			519.2834	103.9	3.9	1891.3
XIBLK02	2-Nitrotoluene	137 > 46			21353.541									
XIBLK02	4-Nitrotoluene	137 > 46			21353.541									
XIBLK02	3-Nitrotoluene	137 > 46			21353.541									
XIBLK02	PETN	361 > 62			21353.541									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1747
Lab Code: GEL
Lab Sample ID: XIBLK03
Analysis Date: 04–MAR–10 20:11
GEL Data File: EXP0304011a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	542.741
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	569.446
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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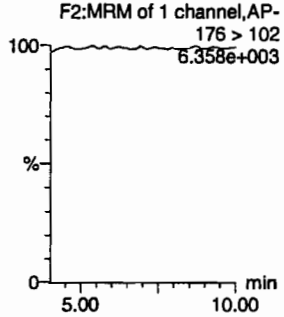
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

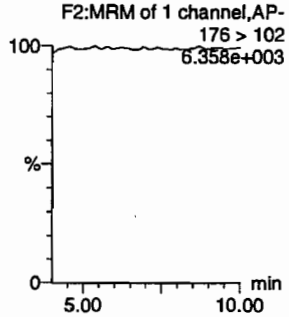
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304011a
Date: 04-Mar-2010
Time: 20:11:24
ID: XIBLK03
Vial: 1:1,A

MAP 3/6/10

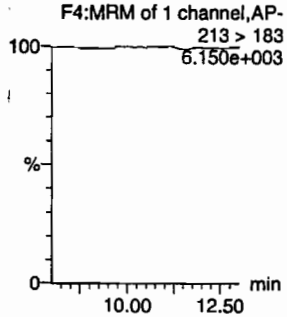
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.358e+003



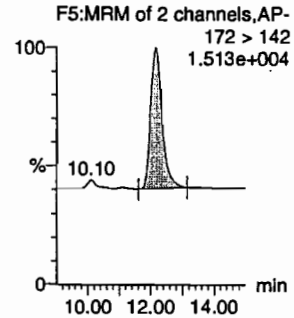
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.358e+003



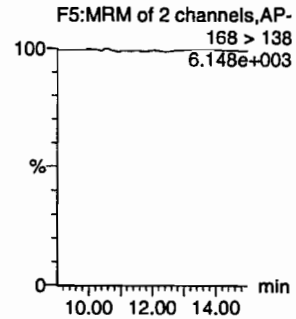
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.150e+003



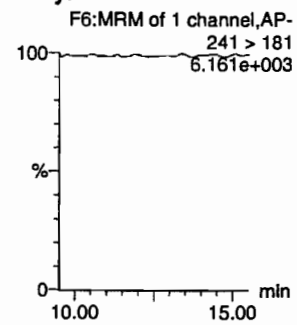
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.513e+004



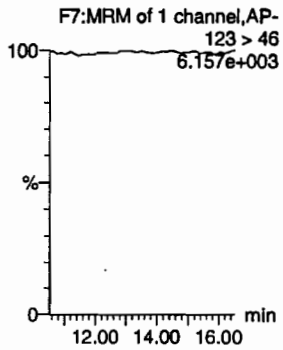
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.148e+003



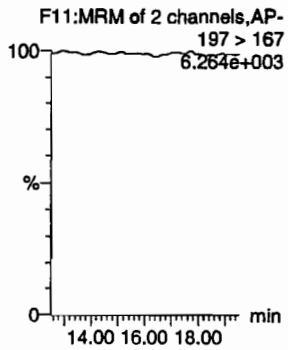
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.161e+003



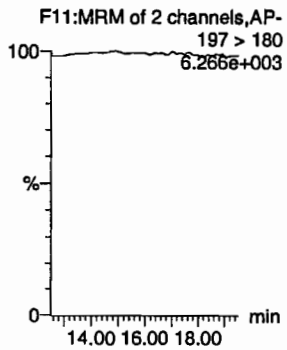
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.157e+003



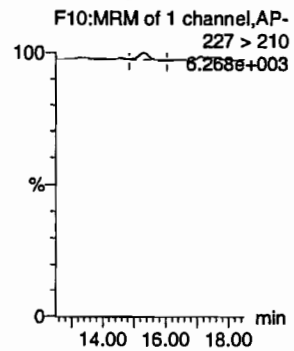
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.264e+003



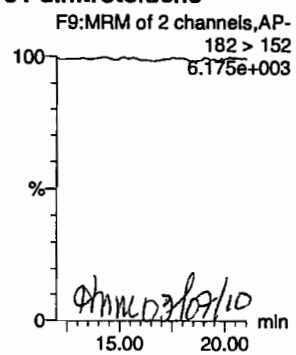
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.266e+003



246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.268e+003

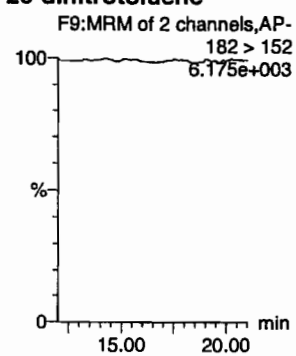


34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.175e+003



MMD 3/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.175e+003

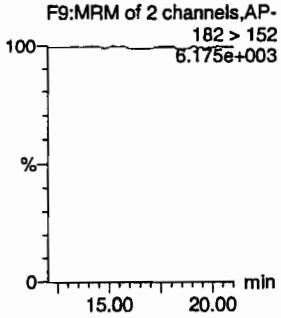


GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

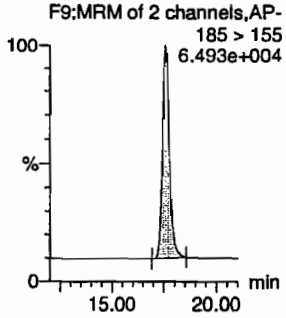
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

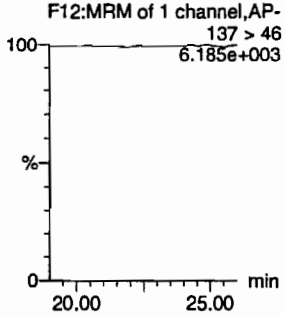
24-dinitrotoluene



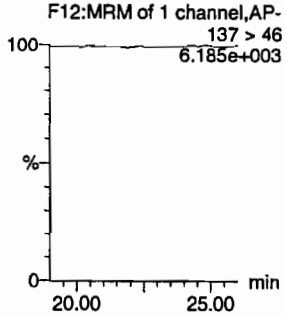
26-dinitrotoluene-d3



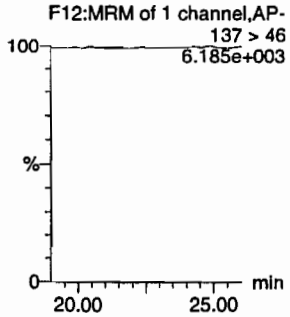
2-Nitrotoluene



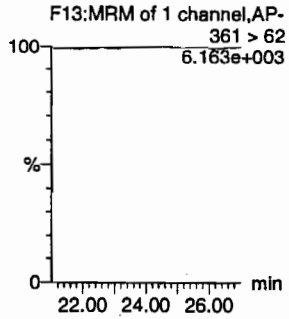
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			3811.982									
XIBLK03	RDX	176 > 102			3811.982									
XIBLK03	135-Trinitrobenzene	213 > 183			3811.982									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.14	3811.982		3811.982	3811.982	bb			542.7408	108.5	8.5	563.6
XIBLK03	13-Dinitrobenzene	168 > 138			3811.982									
XIBLK03	Tetryl	241 > 181			3811.982									
XIBLK03	Nitrobenzene	123 > 46			3811.982									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			23416.273									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			23416.273									
XIBLK03	246-Trinitrotoluene	227 > 210			23416.273			MM-	05-Mar-10	10:08:06				
XIBLK03	34-dinitrotoluene	182 > 152			23416.273									
XIBLK03	26-dinitrotoluene	182 > 152			23416.273									
XIBLK03	24-dinitrotoluene	182 > 152			23416.273									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.57	23416.273		23416.273	23416.273	bb			569.4457	113.9	13.9	2213.1
XIBLK03	2-Nitrotoluene	137 > 46			23416.273									
XIBLK03	4-Nitrotoluene	137 > 46			23416.273									
XIBLK03	3-Nitrotoluene	137 > 46			23416.273									
XIBLK03	PETN	361 > 62			23416.273									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1747
Lab Code: GEL
Lab Sample ID: XIBLK04
Analysis Date: 05–MAR–10 02:34
GEL Data File: EXP0304024a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	521.731
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	509.028
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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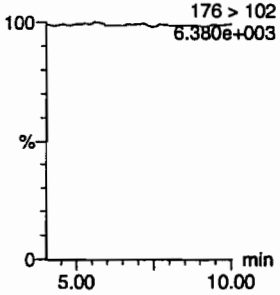
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

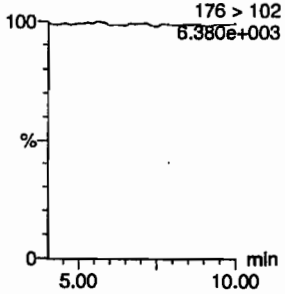
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304024a
Date: 05-Mar-2010
Time: 02:34:46
ID: XIBLK04
Vial: 1:1,A

MMT 3/6/10

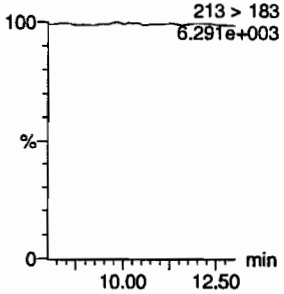
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.380e+003



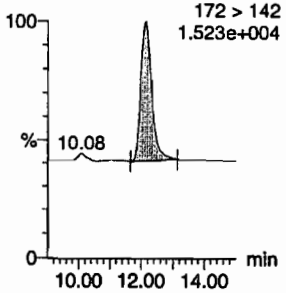
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.380e+003



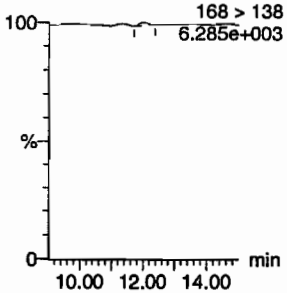
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.291e+003



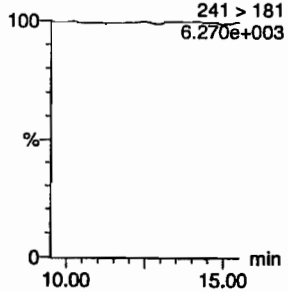
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.523e+004



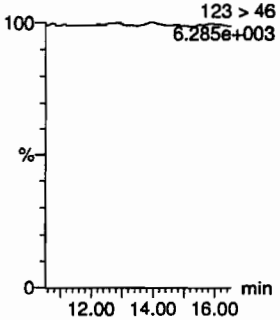
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.285e+003



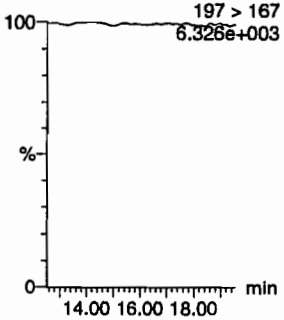
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.270e+003



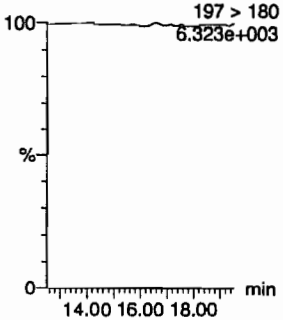
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.285e+003



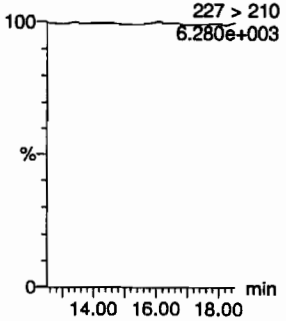
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.326e+003



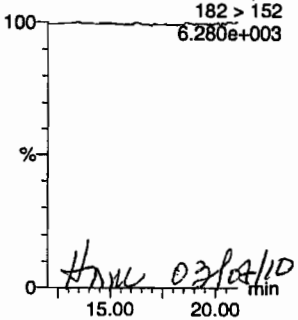
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.323e+003



246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.280e+003

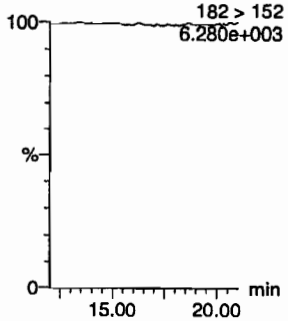


34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.280e+003



HMC 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.280e+003

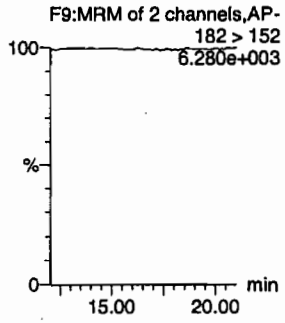


GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

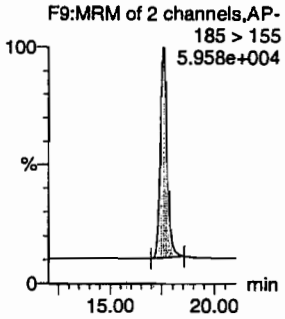
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

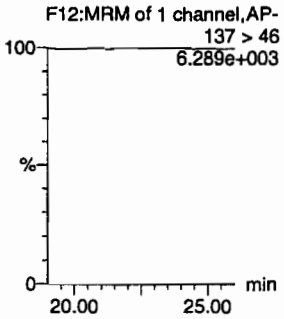
24-dinitrotoluene



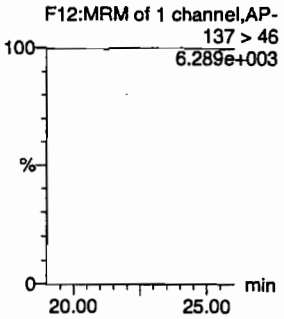
26-dinitrotoluene-d3



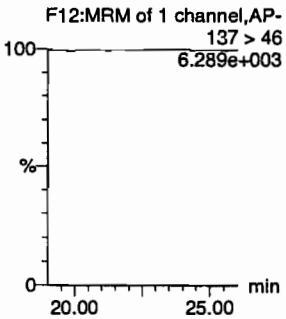
2-Nitrotoluene



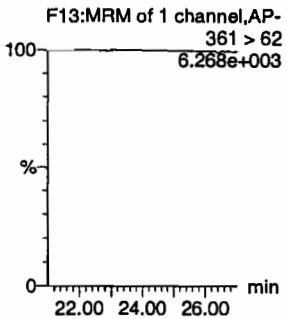
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			3664.416									
XIBLK04	RDX	176 > 102			3664.416									
XIBLK04	135-Trinitrobenzene	213 > 183			3664.416									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.14	3664.416		3664.416	3664.416	bb			521.7307	104.3	4.3	406.8
XIBLK04	13-Dinitrobenzene	168 > 138			3664.416			MM-	05-Mar-10	10:02:41				
XIBLK04	Tetryl	241 > 181			3664.416									
XIBLK04	Nitrobenzene	123 > 46			3664.416									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			20931.807									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			20931.807									
XIBLK04	246-Trinitrotoluene	227 > 210			20931.807									
XIBLK04	34-dinitrotoluene	182 > 152			20931.807									
XIBLK04	26-dinitrotoluene	182 > 152			20931.807									
XIBLK04	24-dinitrotoluene	182 > 152			20931.807									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.57	20931.807		20931.807	20931.807	bb			509.0276	101.8	1.8	1779.3
XIBLK04	2-Nitrotoluene	137 > 46			20931.807									
XIBLK04	4-Nitrotoluene	137 > 46			20931.807									
XIBLK04	3-Nitrotoluene	137 > 46			20931.807									
XIBLK04	PETN	361 > 62			20931.807									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1747
Lab Code: GEL
Lab Sample ID: XIBLK05
Analysis Date: 05–MAR–10 08:58
GEL Data File: EXP0304037a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	520.666
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	533.265
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

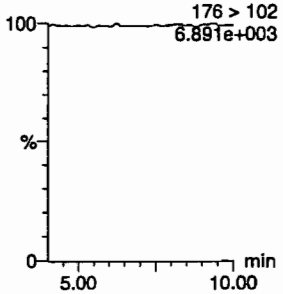
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

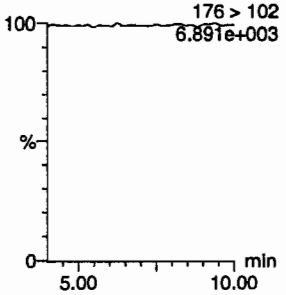
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304037a
Date: 05-Mar-2010
Time: 08:58:06
ID: XIBLK05
Vial: 1:1,A

MDT 3/6/10

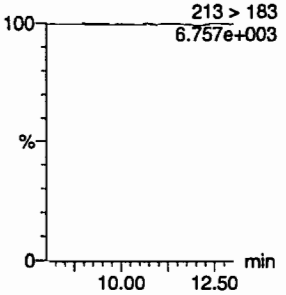
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.891e+003



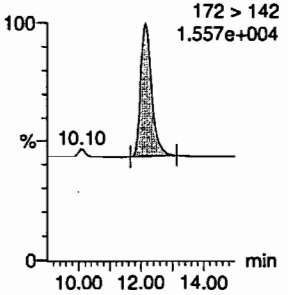
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.891e+003



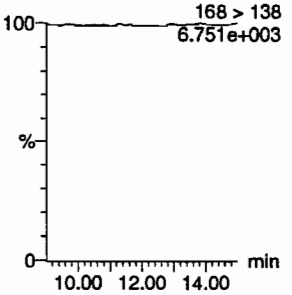
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.757e+003



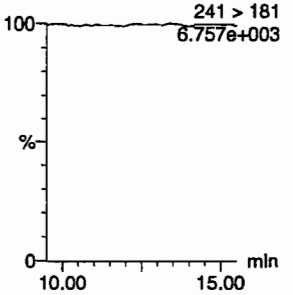
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.557e+004



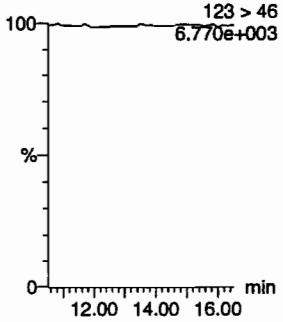
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.751e+003



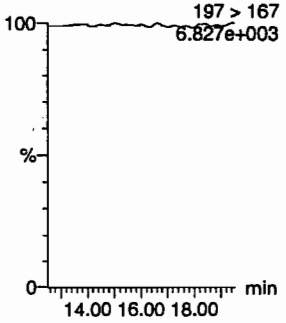
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.757e+003



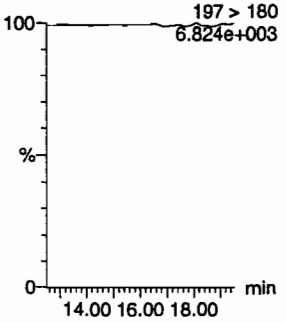
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.770e+003



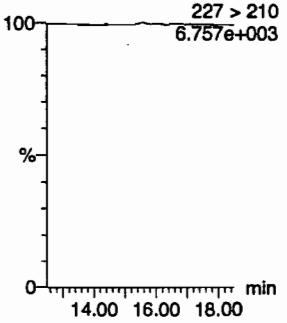
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.827e+003



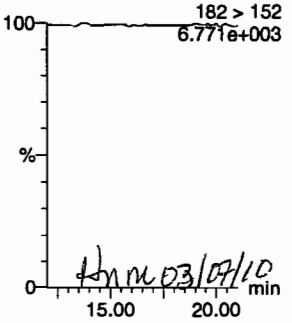
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.824e+003



246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.757e+003

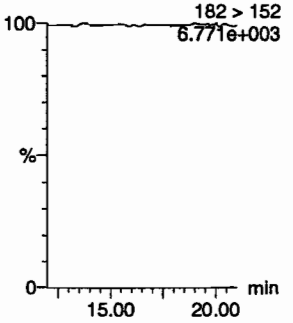


34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.771e+003



HM 03/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.771e+003



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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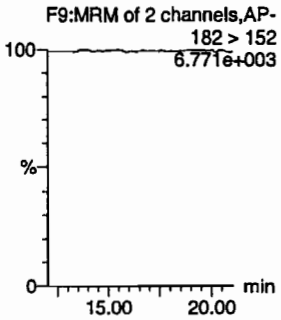
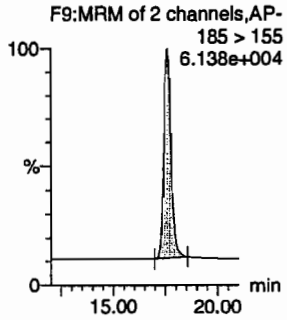
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

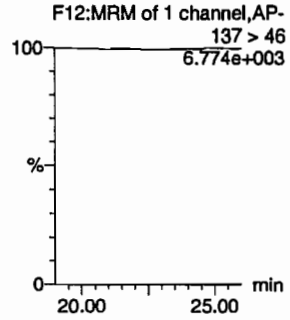
24-dinitrotoluene



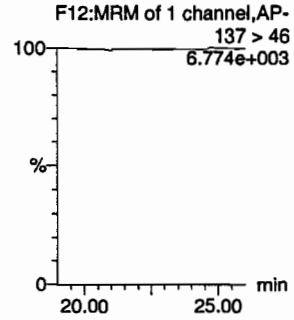
26-dinitrotoluene-d3



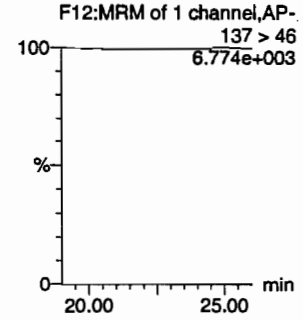
2-Nitrotoluene



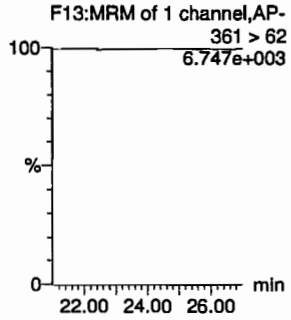
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			3656.936									
XIBLK05	RDX	176 > 102			3656.936									
XIBLK05	135-Trinitrobenzene	213 > 183			3656.936									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.14	3656.936		3656.936	3656.936	bb			520.6657	104.1	4.1	660.6
XIBLK05	13-Dinitrobenzene	168 > 138			3656.936									
XIBLK05	Tetryl	241 > 181			3656.936									
XIBLK05	Nitrobenzene	123 > 46			3656.936									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			21928.471									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			21928.471									
XIBLK05	246-Trinitrotoluene	227 > 210			21928.471									
XIBLK05	34-dinitrotoluene	182 > 152			21928.471									
XIBLK05	26-dinitrotoluene	182 > 152			21928.471									
XIBLK05	24-dinitrotoluene	182 > 152			21928.471									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.60	21928.471		21928.471	21928.471	bb			533.2648	106.7	6.7	2452.1
XIBLK05	2-Nitrotoluene	137 > 46			21928.471									
XIBLK05	4-Nitrotoluene	137 > 46			21928.471									
XIBLK05	3-Nitrotoluene	137 > 46			21928.471									
XIBLK05	PETN	361 > 62			21928.471									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 05–MAR–10 15:21

GEL Data File: EXP0304050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

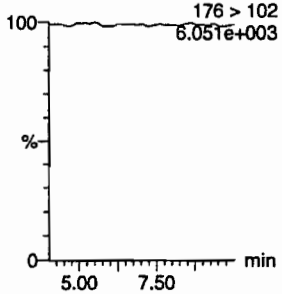
Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	566.455
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	585.17
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

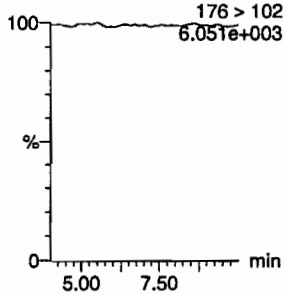
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304050a
Date: 05-Mar-2010
Time: 15:21:48
ID: XIBLK06
Vial: 1:1,A

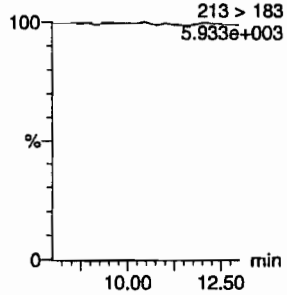
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.051e+003



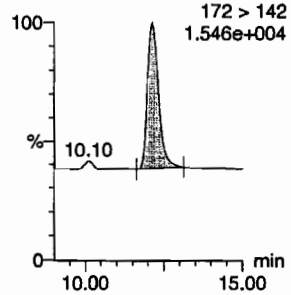
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.051e+003



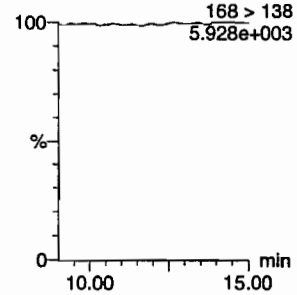
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.933e+003



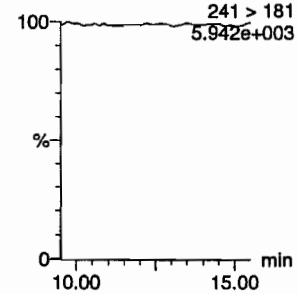
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.546e+004



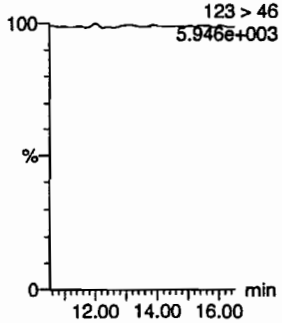
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.928e+003



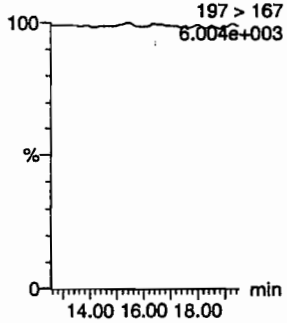
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.942e+003



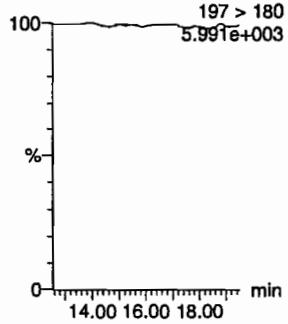
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.946e+003



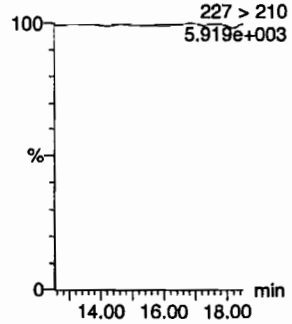
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.004e+003



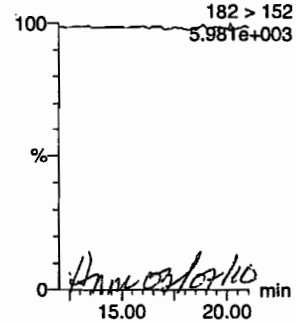
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.991e+003



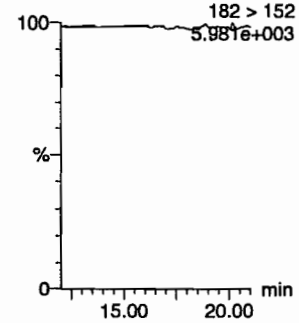
246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.919e+003



34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.981e+003



26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.981e+003



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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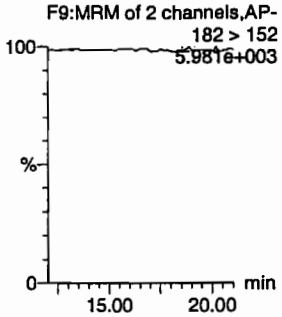
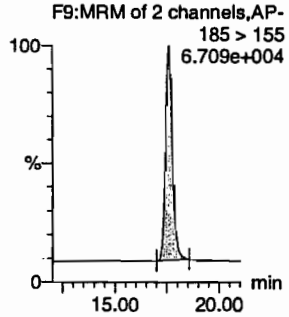
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

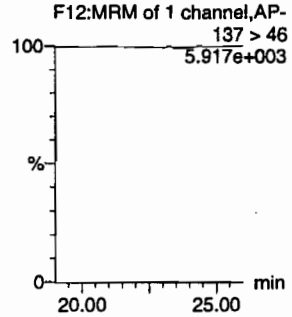
24-dinitrotoluene



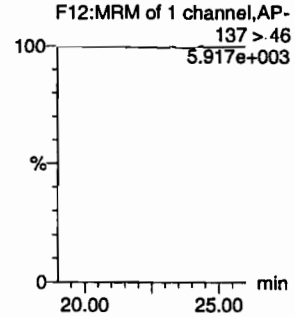
26-dinitrotoluene-d3



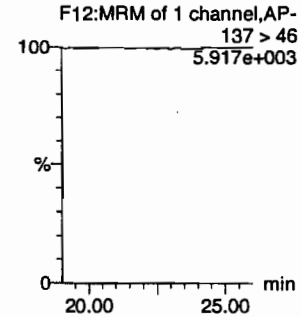
2-Nitrotoluene



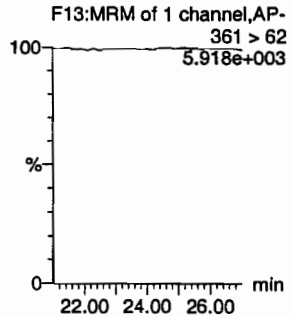
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			3978.542									
XIBLK06	RDX	176 > 102			3978.542									
XIBLK06	135-Trinitrobenzene	213 > 183			3978.542									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.13	3978.542		3978.542	3978.542	bb			566.4552	113.3	13.3	507.0
XIBLK06	13-Dinitrobenzene	168 > 138			3978.542									
XIBLK06	Tetryl	241 > 181			3978.542									
XIBLK06	Nitrobenzene	123 > 46			3978.542									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			24062.877									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			24062.877									
XIBLK06	246-Trinitrotoluene	227 > 210			24062.877									
XIBLK06	34-dinitrotoluene	182 > 152			24062.877									
XIBLK06	26-dinitrotoluene	182 > 152			24062.877									
XIBLK06	24-dinitrotoluene	182 > 152			24062.877			MM-	06-Mar-10	12:15:04				
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.59	24062.877		24062.877	24062.877	bb			585.1701	117.0	17.0	2396.3
XIBLK06	2-Nitrotoluene	137 > 46			24062.877									
XIBLK06	4-Nitrotoluene	137 > 46			24062.877									
XIBLK06	3-Nitrotoluene	137 > 46			24062.877									
XIBLK06	PETN	361 > 62			24062.877									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1747

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 05-MAR-10 17:19

GEL Data File: EXP0304054a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	550.421
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	589.463
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0

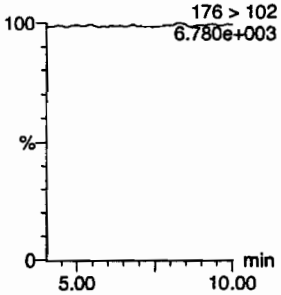
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

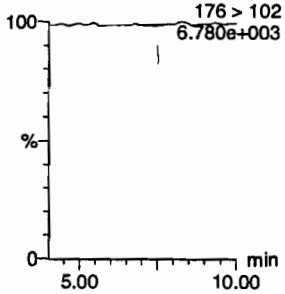
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304054a
Date: 05-Mar-2010
Time: 17:19:56
ID: XIBLK07
Vial: 1:1,A

MATT 3/6/10

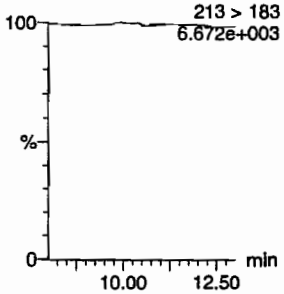
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.780e+003



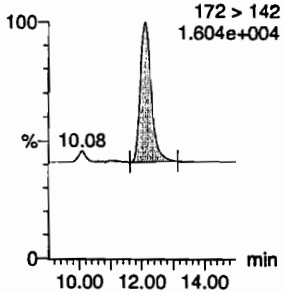
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.780e+003



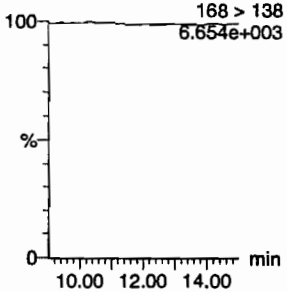
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.672e+003



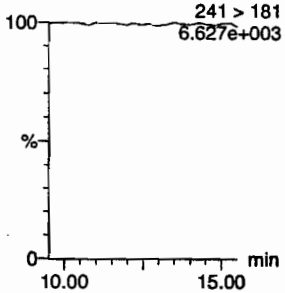
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.604e+004



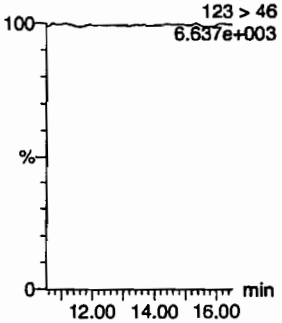
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.654e+003



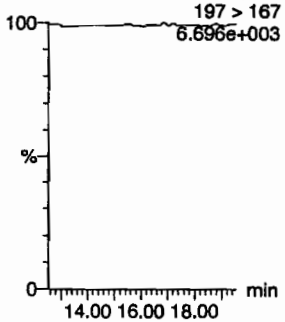
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.627e+003



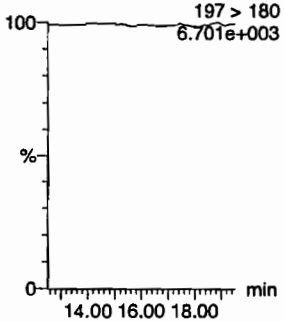
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.637e+003



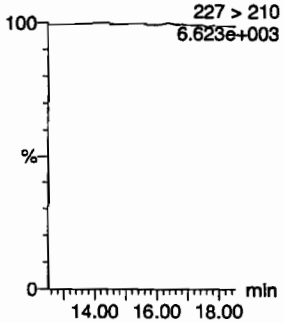
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.696e+003



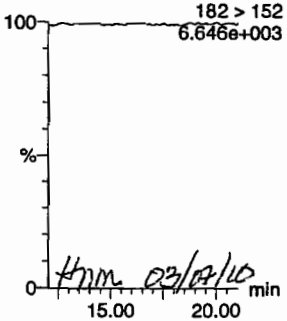
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.701e+003



246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.623e+003

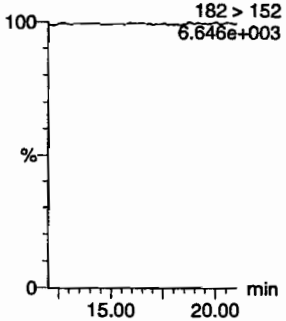


34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.646e+003



HMM 03/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.646e+003



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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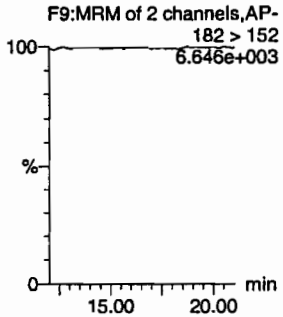
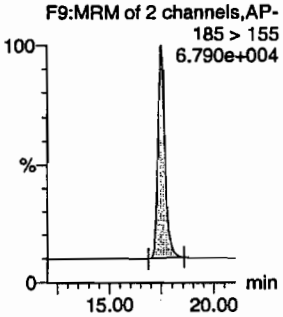
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

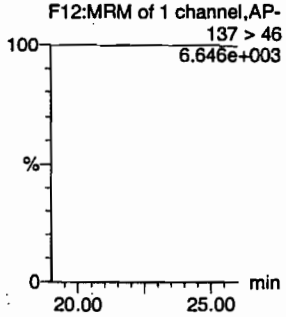
24-dinitrotoluene



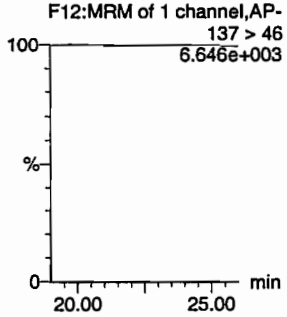
26-dinitrotoluene-d3



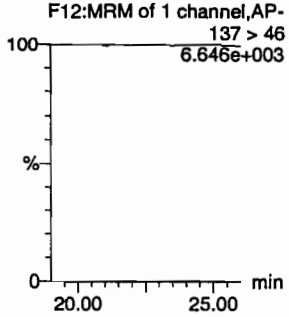
2-Nitrotoluene



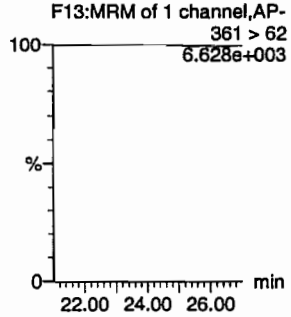
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			3865.926									
XIBLK07	RDX	176 > 102			3865.926									
XIBLK07	135-Trinitrobenzene	213 > 183			3865.926									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.10	3865.926		3865.926	3865.926	bb			550.4212	110.1	10.1	286.5
XIBLK07	13-Dinitrobenzene	168 > 138			3865.926									
XIBLK07	Tetryl	241 > 181			3865.926									
XIBLK07	Nitrobenzene	123 > 46			3865.926									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			24239.424									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			24239.424									
XIBLK07	246-Trinitrotoluene	227 > 210			24239.424									
XIBLK07	34-dinitrotoluene	182 > 152			24239.424									
XIBLK07	26-dinitrotoluene	182 > 152			24239.424									
XIBLK07	24-dinitrotoluene	182 > 152			24239.424									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.49	24239.424		24239.424	24239.424	bb			589.4634	117.9	17.9	2856.4
XIBLK07	2-Nitrotoluene	137 > 46			24239.424									
XIBLK07	4-Nitrotoluene	137 > 46			24239.424									
XIBLK07	3-Nitrotoluene	137 > 46			24239.424									
XIBLK07	PETN	361 > 62			24239.424									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 05–MAR–10 22:44

GEL Data File: EXP0304065a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	526.538
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	517.577
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

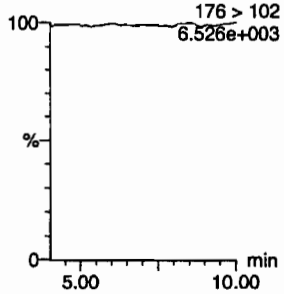
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

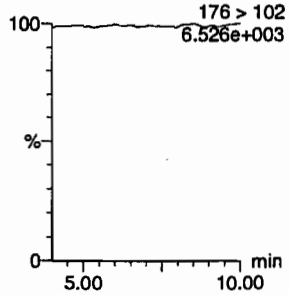
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304065a
Date: 05-Mar-2010
Time: 22:44:30
ID: XIBLK08
Vial: 1:1,A

MMT 3/6/10

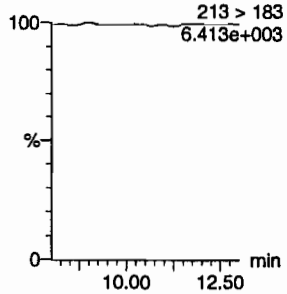
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.526e+003



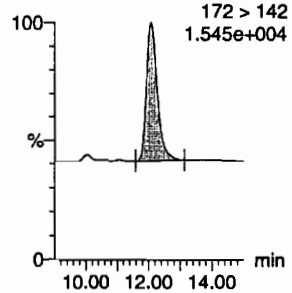
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.526e+003



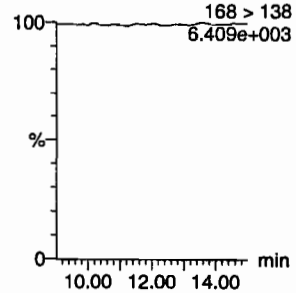
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.413e+003



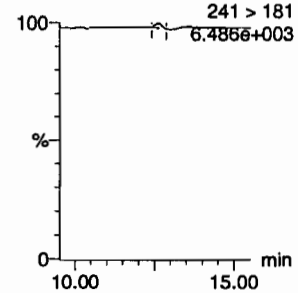
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.545e+004



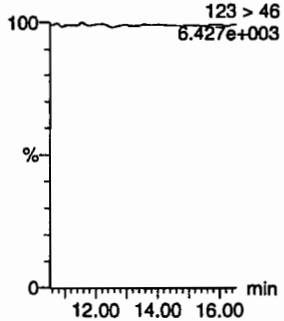
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.409e+003



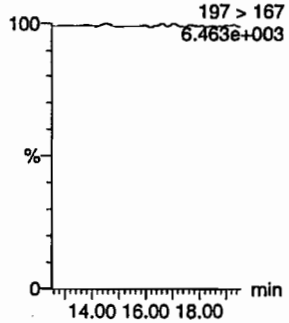
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.486e+003



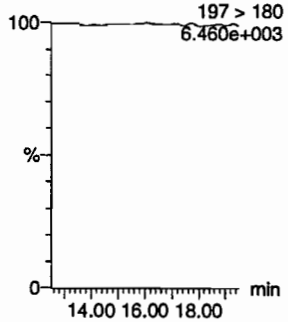
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.427e+003



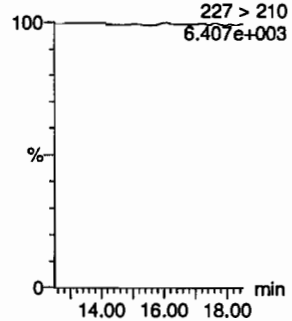
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.463e+003



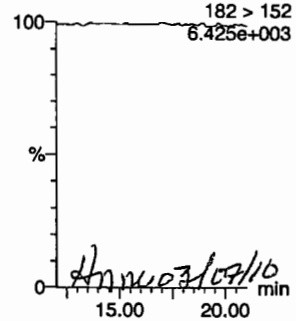
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.460e+003



246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.407e+003

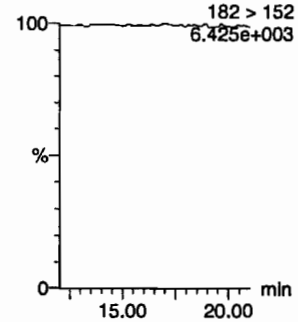


34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.425e+003



MMW 03/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.425e+003



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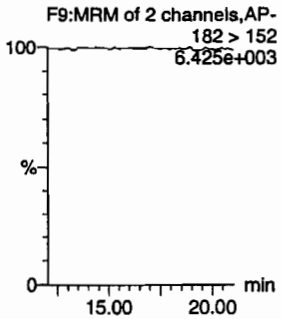
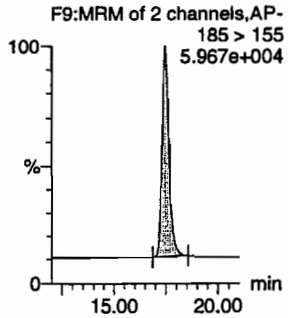
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

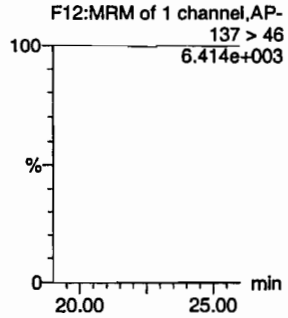
24-dinitrotoluene



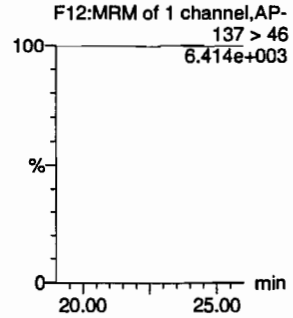
26-dinitrotoluene-d3



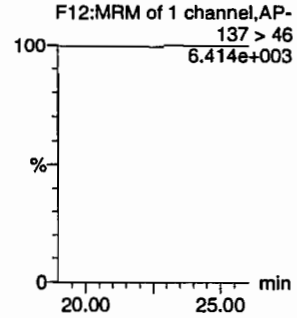
2-Nitrotoluene



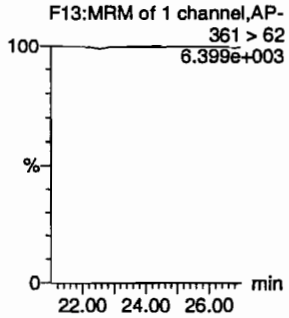
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3698.178									
XIBLK08	RDX	176 > 102			3698.178									
XIBLK08	135-Trinitrobenzene	213 > 183			3698.178									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.07	3698.178		3698.178	3698.178	bb			526.5377	105.3	5.3	528.8
XIBLK08	13-Dinitrobenzene	168 > 138			3698.178									
XIBLK08	Tetryl	241 > 181			3698.178			MM-	06-Mar-10	12:07:04				
XIBLK08	Nitrobenzene	123 > 46			3698.178									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			21283.357									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			21283.357									
XIBLK08	246-Trinitrotoluene	227 > 210			21283.357									
XIBLK08	34-dinitrotoluene	182 > 152			21283.357									
XIBLK08	26-dinitrotoluene	182 > 152			21283.357									
XIBLK08	24-dinitrotoluene	182 > 152			21283.357									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.49	21283.357		21283.357	21283.357	bb			517.5767	103.5	3.5	1698.2
XIBLK08	2-Nitrotoluene	137 > 46			21283.357									
XIBLK08	4-Nitrotoluene	137 > 46			21283.357									
XIBLK08	3-Nitrotoluene	137 > 46			21283.357									
XIBLK08	PETN	361 > 62			21283.357									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 06–MAR–10 04:38

GEL Data File: EXP0304077a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	566.283
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	540.156
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

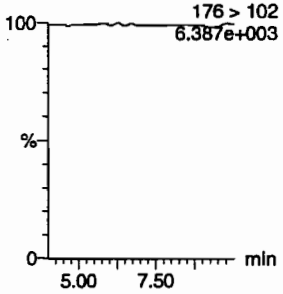
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

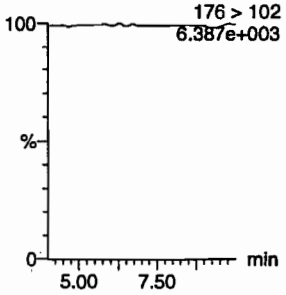
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304077a
Date: 06-Mar-2010
Time: 04:38:34
ID: XIBLK09
Vial: 1:1,A

MATT 3/6/10

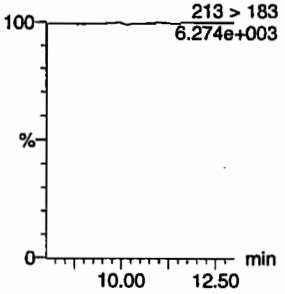
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.387e+003



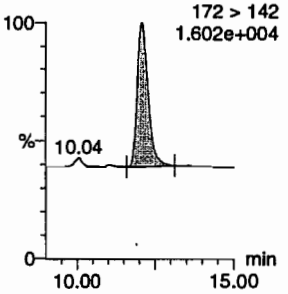
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.387e+003



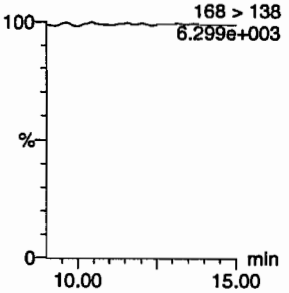
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.274e+003



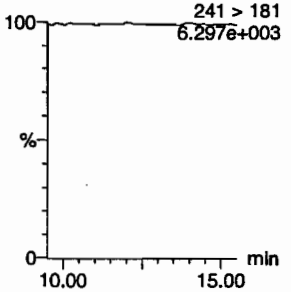
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.602e+004



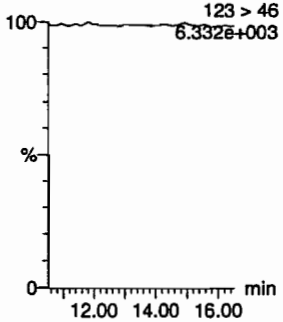
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.299e+003



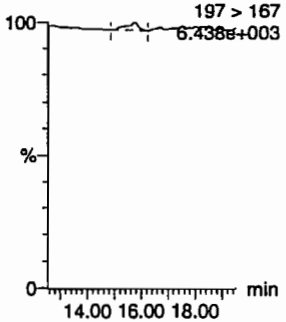
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.297e+003



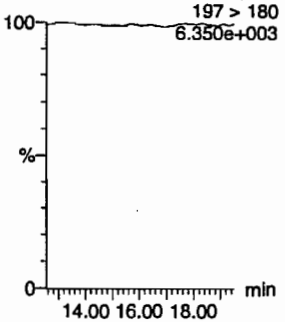
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.332e+003



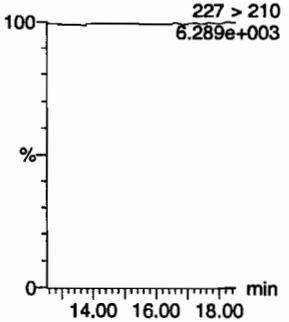
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.438e+003



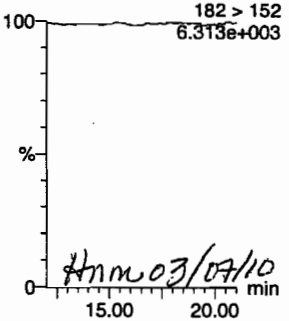
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.350e+003



246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.289e+003

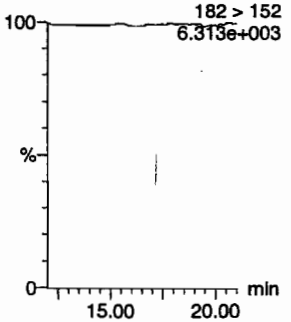


34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.313e+003



HMM 03/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.313e+003



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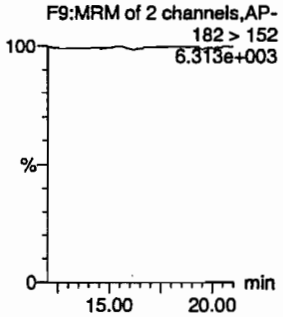
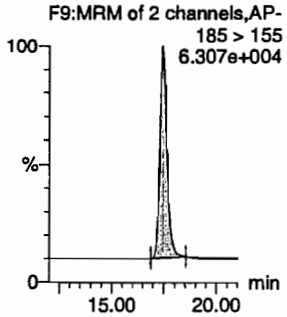
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

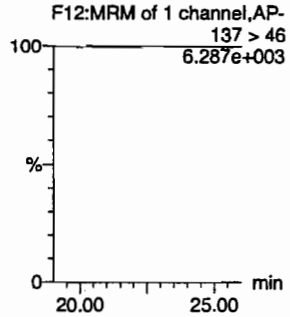
24-dinitrotoluene



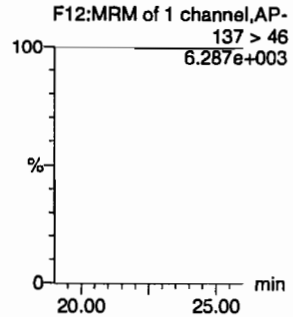
26-dinitrotoluene-d3



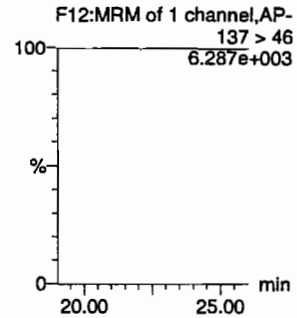
2-Nitrotoluene



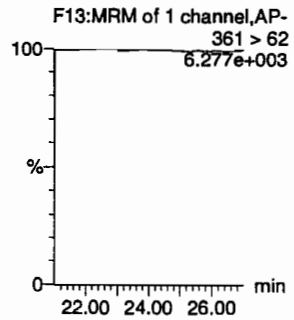
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3977.332									
XIBLK09	RDX	176 > 102			3977.332									
XIBLK09	135-Trinitrobenzene	213 > 183			3977.332									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.06	3977.332		3977.332	3977.332	bb			566.2829	113.3	13.3	313.5
XIBLK09	13-Dinitrobenzene	168 > 138			3977.332									
XIBLK09	Tetryl	241 > 181			3977.332									
XIBLK09	Nitrobenzene	123 > 46			3977.332									
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			22211.859			MM-	06-Mar-10	12:09:02				
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			22211.859									
XIBLK09	246-Trinitrotoluene	227 > 210			22211.859									
XIBLK09	34-dinitrotoluene	182 > 152			22211.859									
XIBLK09	26-dinitrotoluene	182 > 152			22211.859									
XIBLK09	24-dinitrotoluene	182 > 152			22211.859									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.48	22211.859		22211.859	22211.859	bb			540.1563	108.0	8.0	2088.0
XIBLK09	2-Nitrotoluene	137 > 46			22211.859									
XIBLK09	4-Nitrotoluene	137 > 46			22211.859									
XIBLK09	3-Nitrotoluene	137 > 46			22211.859									
XIBLK09	PETN	361 > 62			22211.859									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 25–FEB–10 10:51

GEL Data File: EXS02250010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

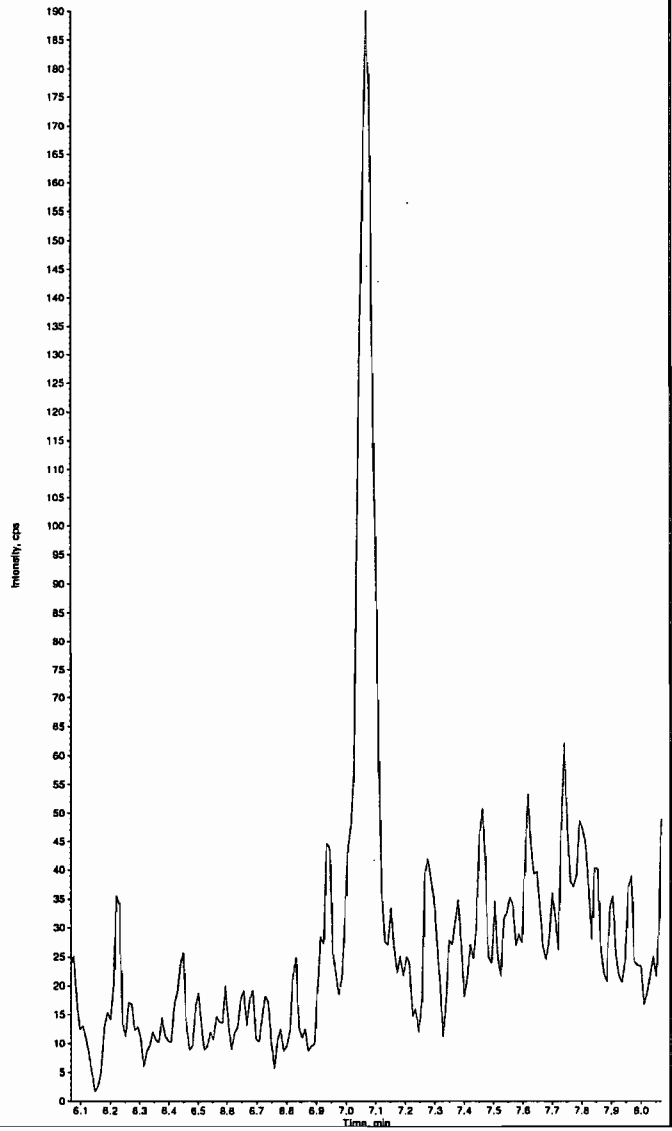
Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	8.98
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ler 2/26/10

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02250010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:51:05 AM

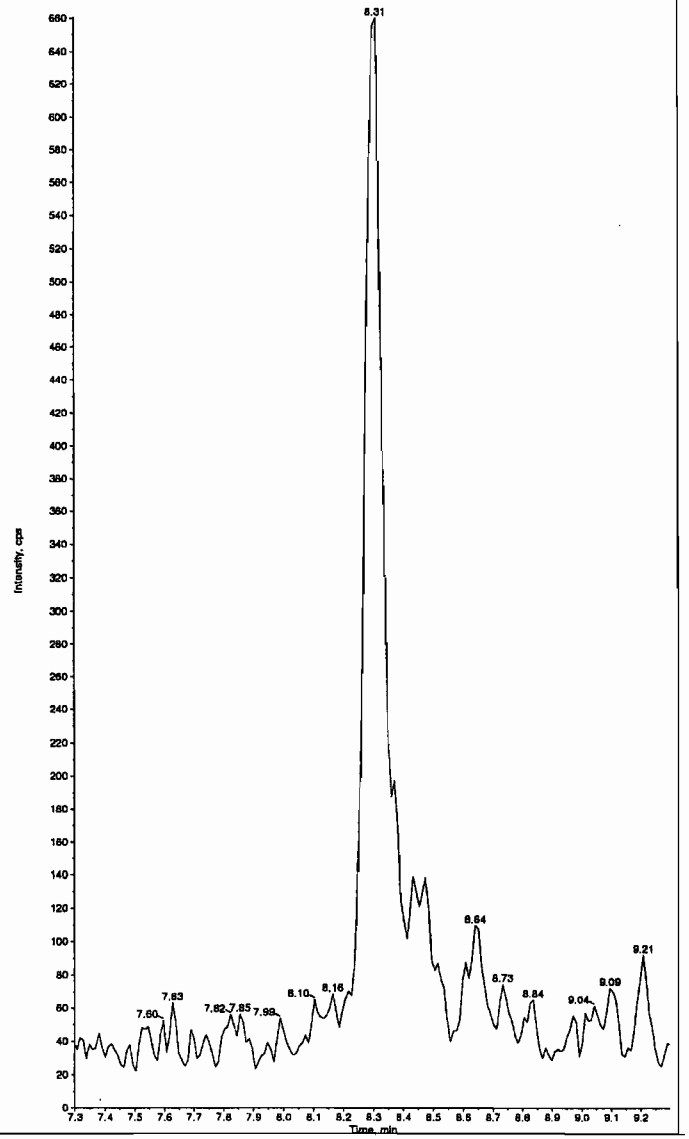
Modified: No



Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02250010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:51:05 AM

Modified: No



HMM 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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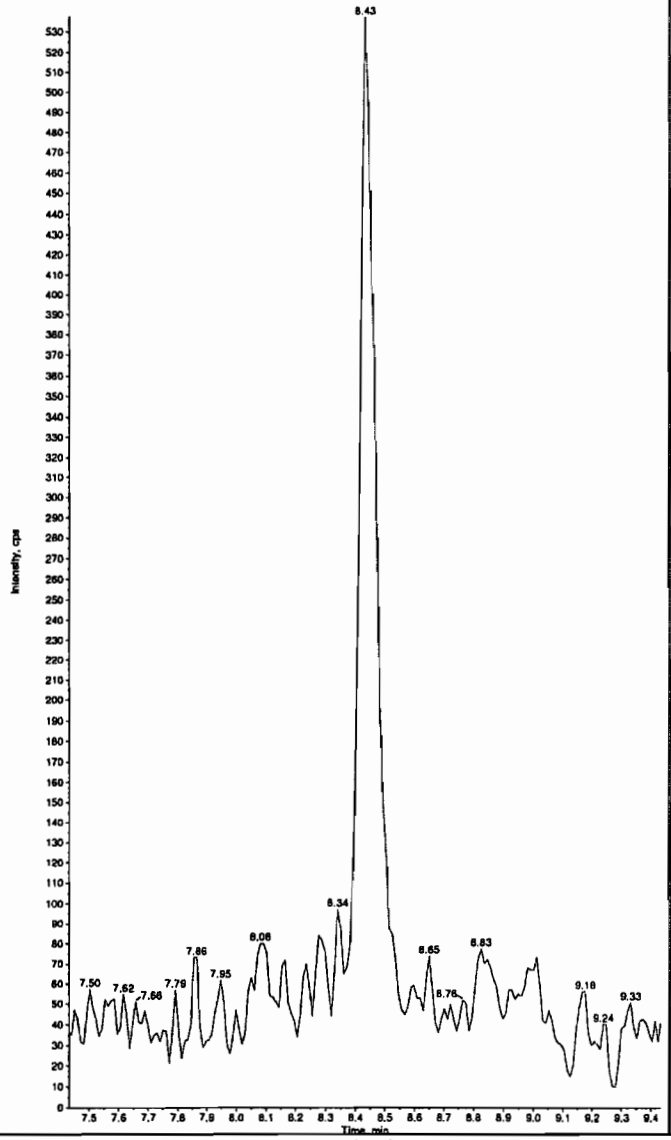
Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02250010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:51:05 AM

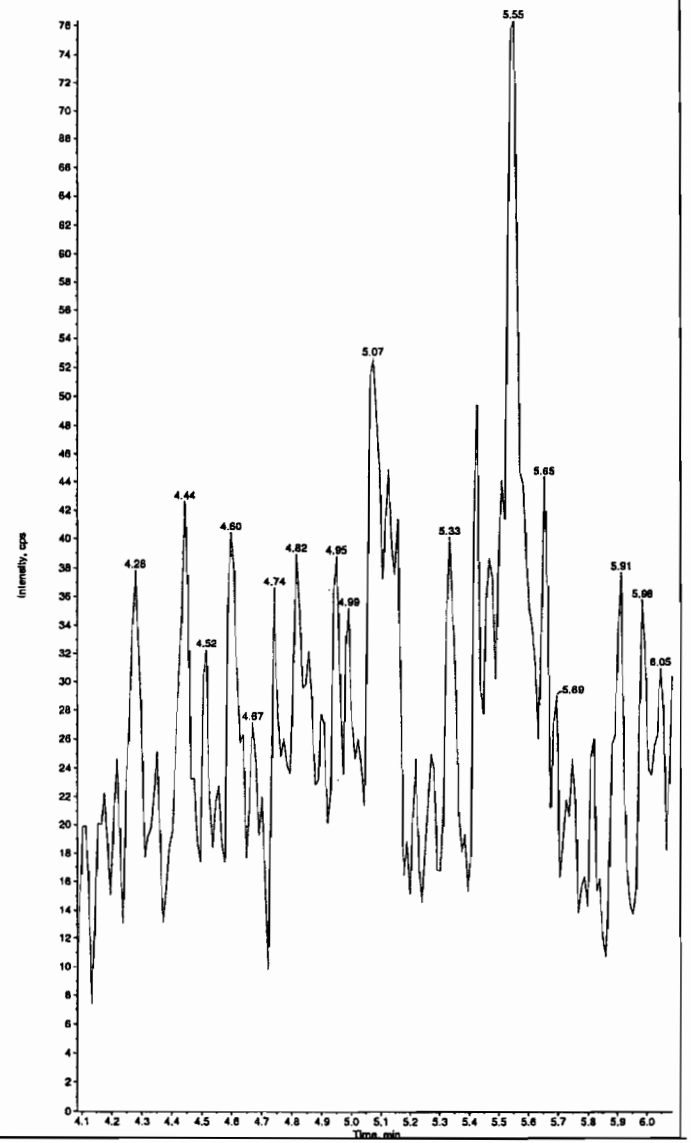
Modified: No



Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02250010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:51:05 AM

Modified: No



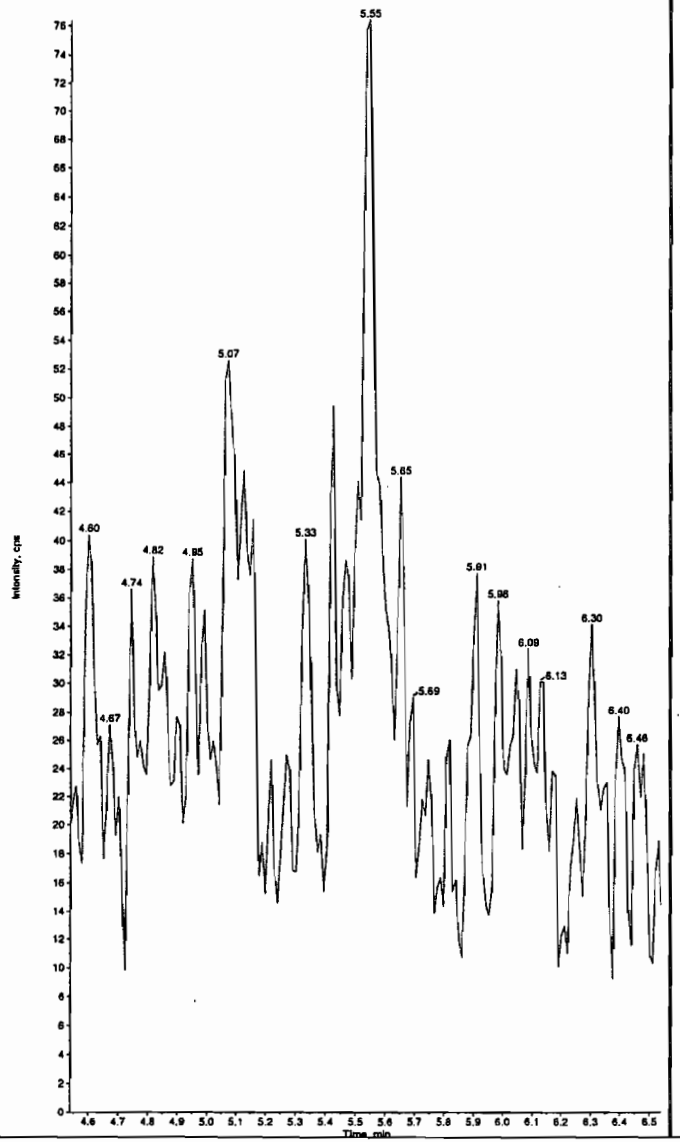
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02250010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:51:05 AM

Modified: No

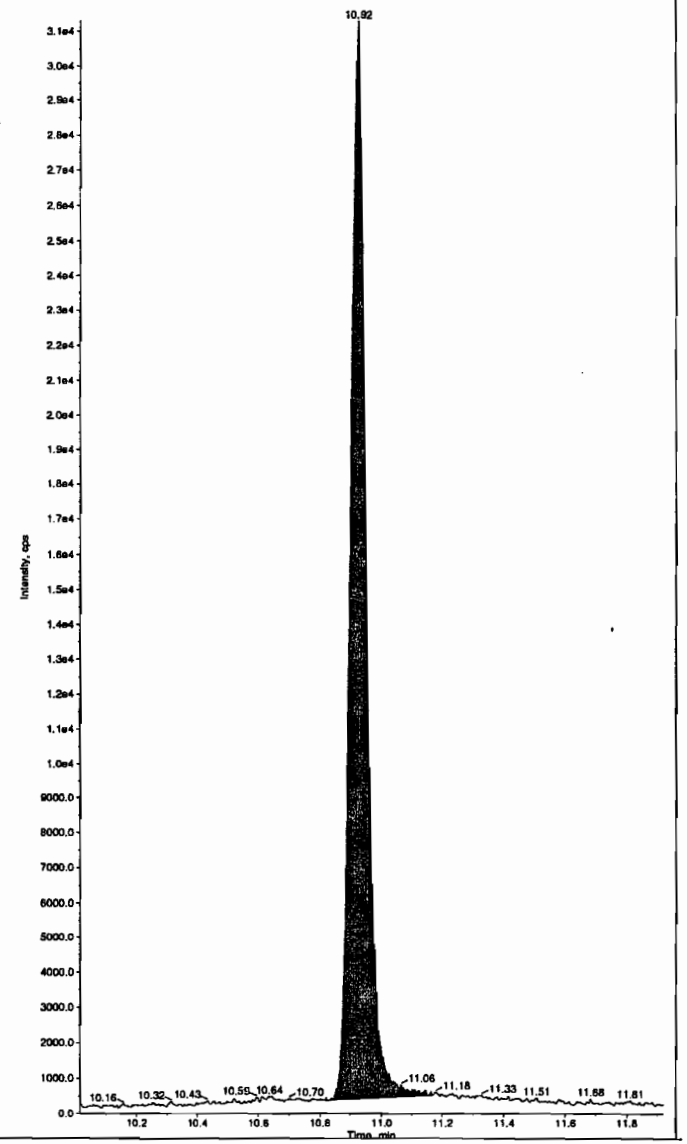


Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02250010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 8.98 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:51:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.14e+005 counts
Height: 30881.874 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1747

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 25-FEB-10 11:22

GEL Data File: EXS02250012.wiff

Instrument ID: LCMSMS

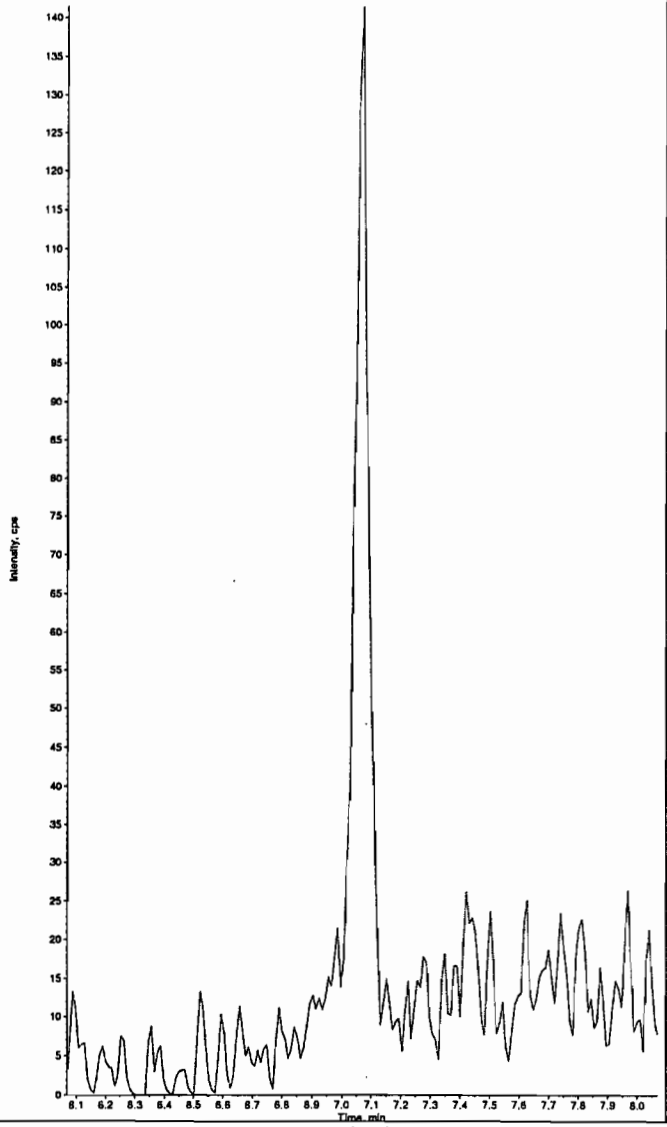
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.62
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ken 2/26/10

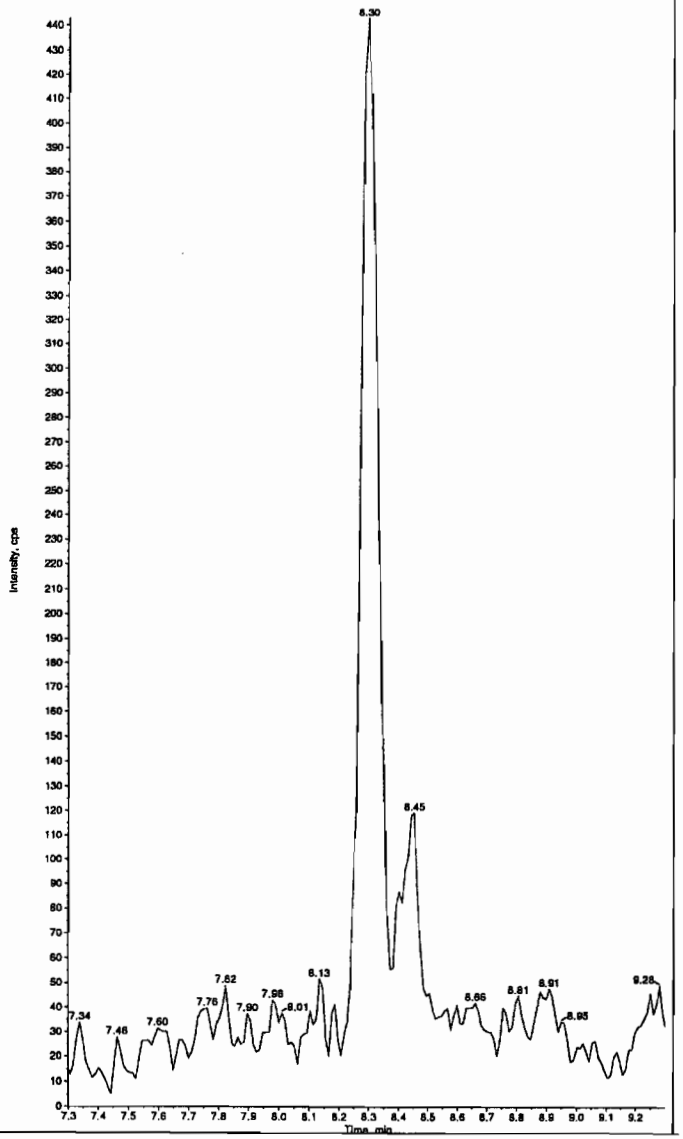
Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02250012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:22:29 AM

Modified: No



Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02250012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:22:29 AM

Modified: No



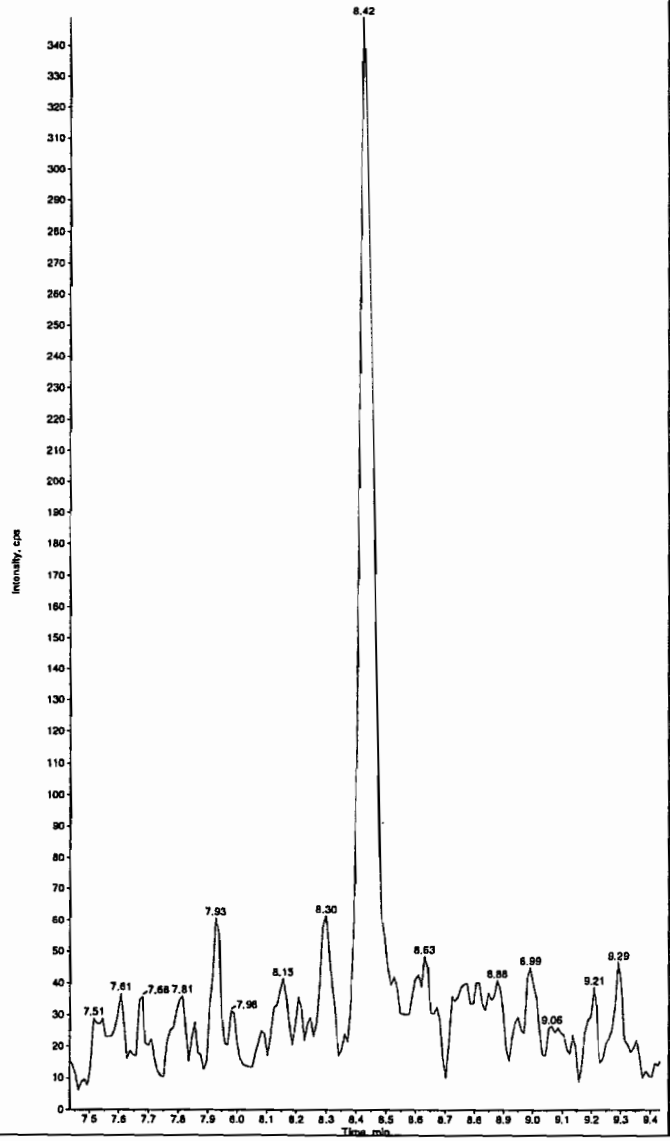
HMM 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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

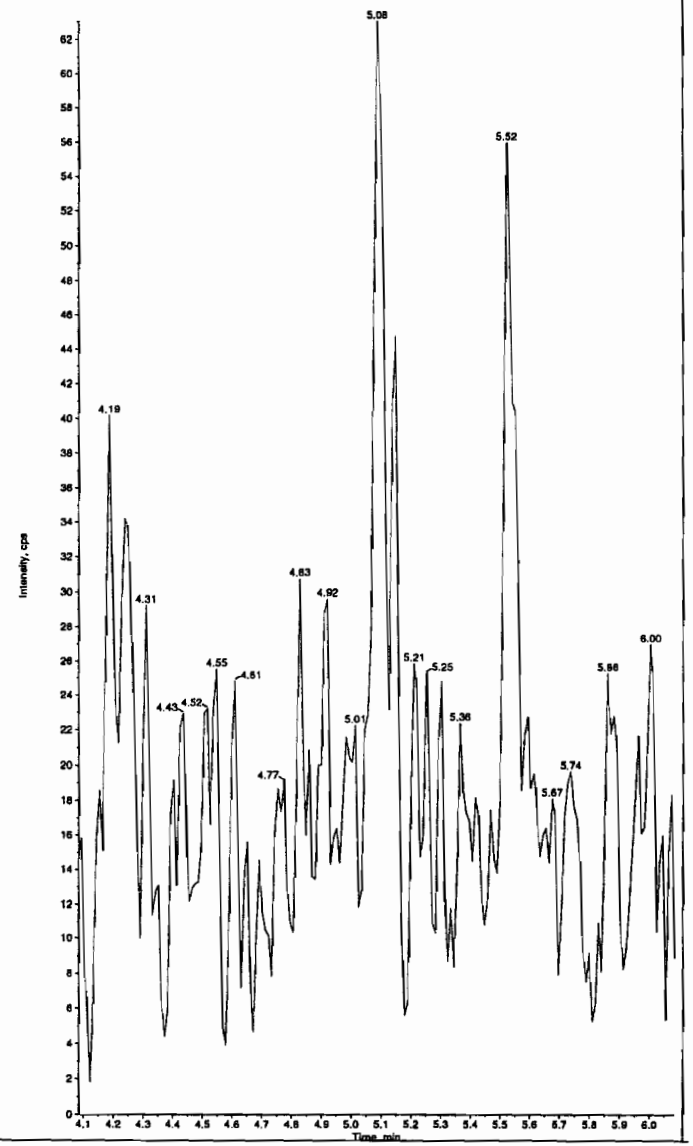
Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02250012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:22:29 AM

Modified: No



Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02250012.wiff"
Peak Name: "2,6-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:22:29 AM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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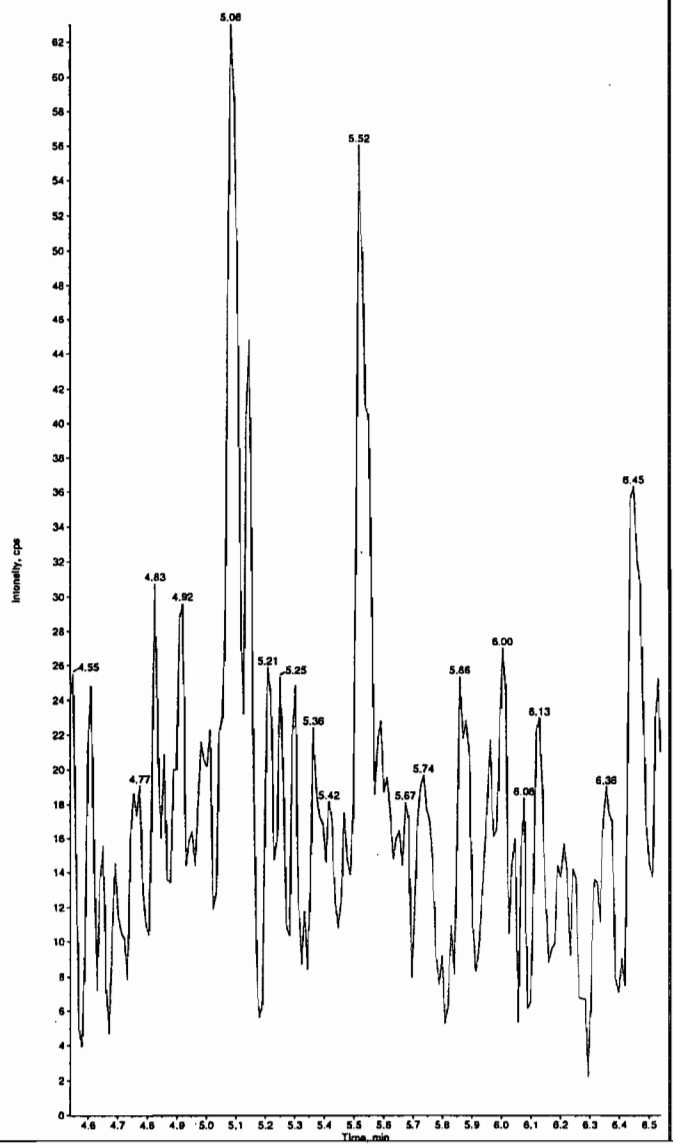
Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02250012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:22:29 AM

Modified: No

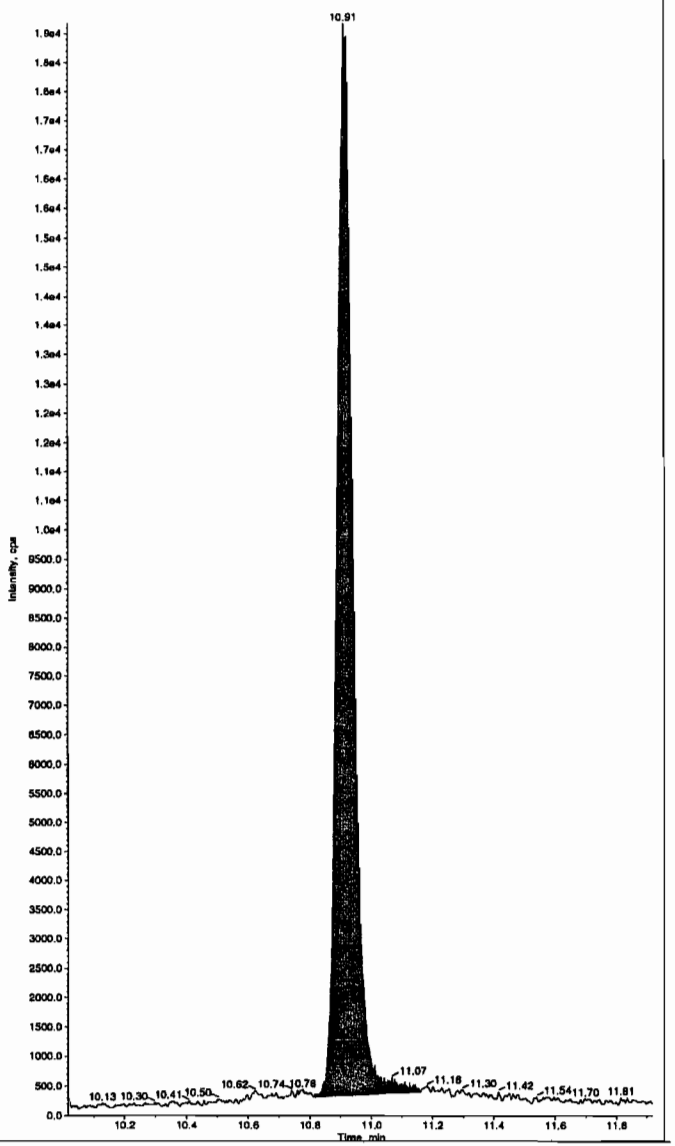


Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02250012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.62 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:22:29 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.89e+004 counts
Height: 18344.229 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1747

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 25-FEB-10 14:47

GEL Data File: EXS02250025.wiff

Instrument ID: LCMSMS

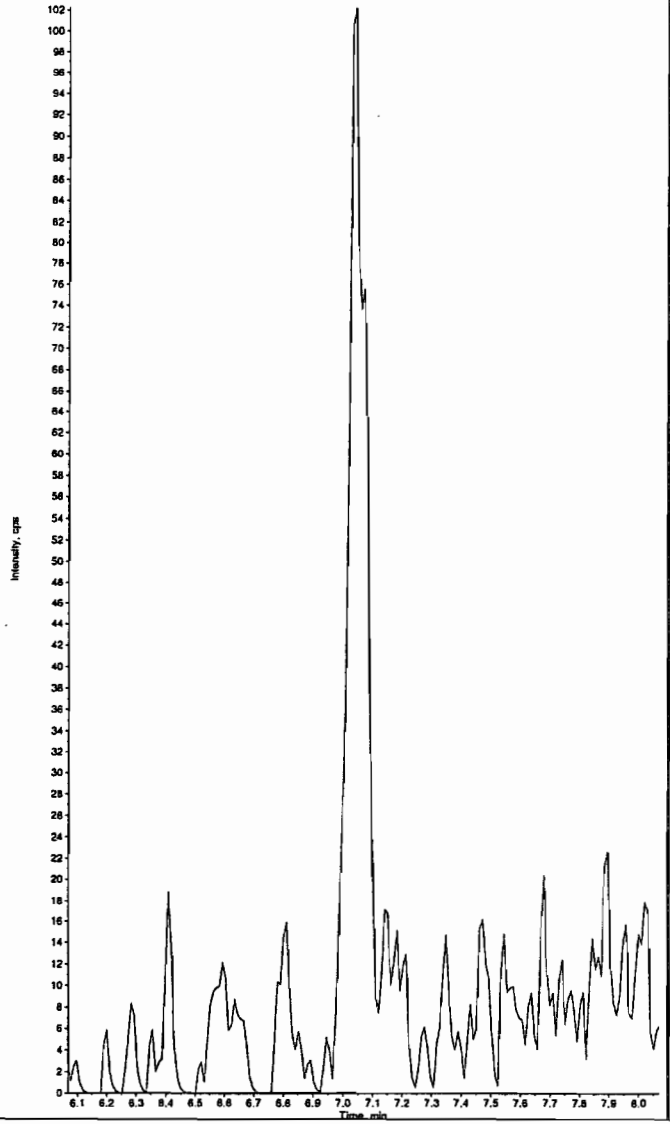
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.89
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lar 2/26/10

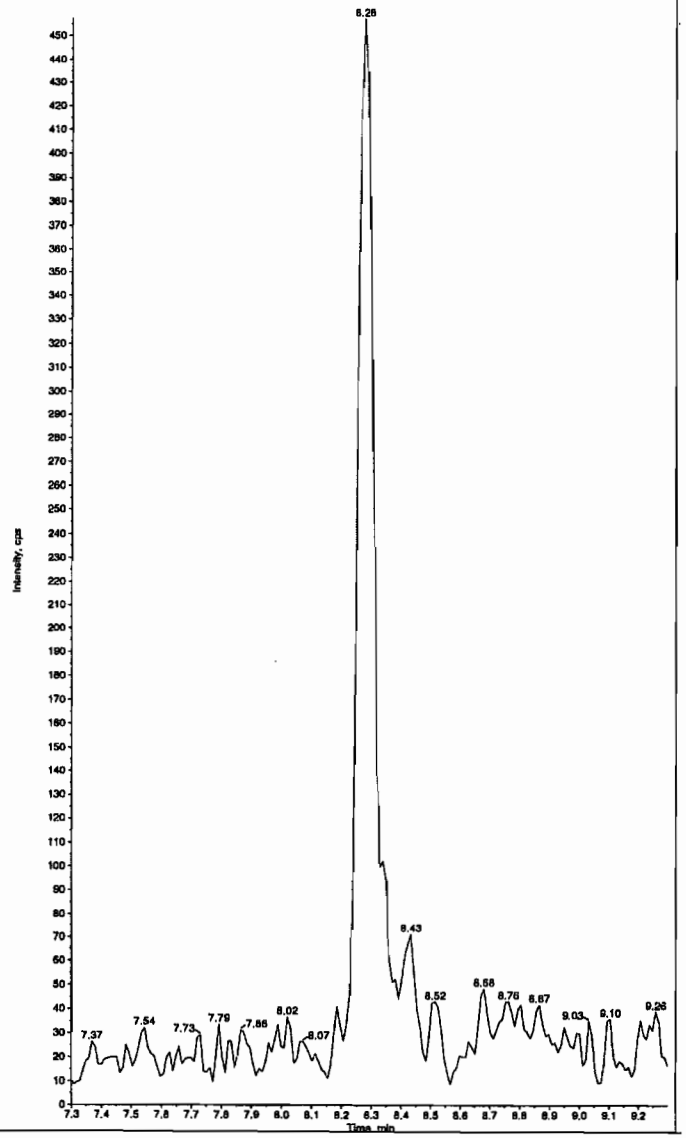
Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02250025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:47:01 PM

Modified: No



Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02250025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:47:01 PM

Modified: No



Hmm 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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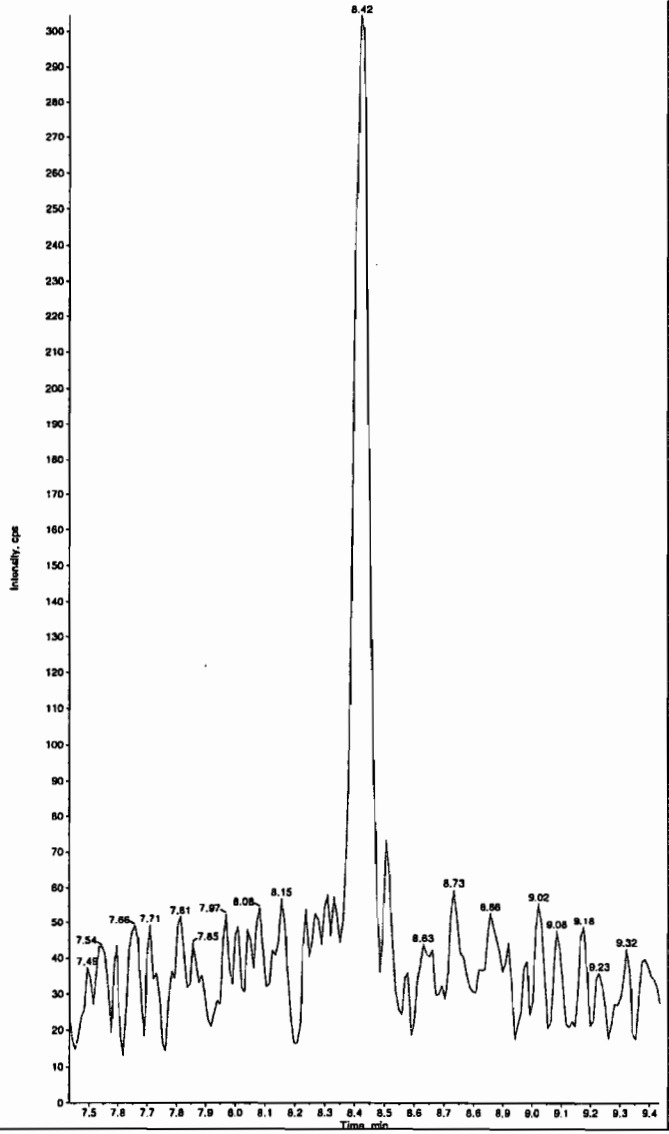
Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02250025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:47:01 PM

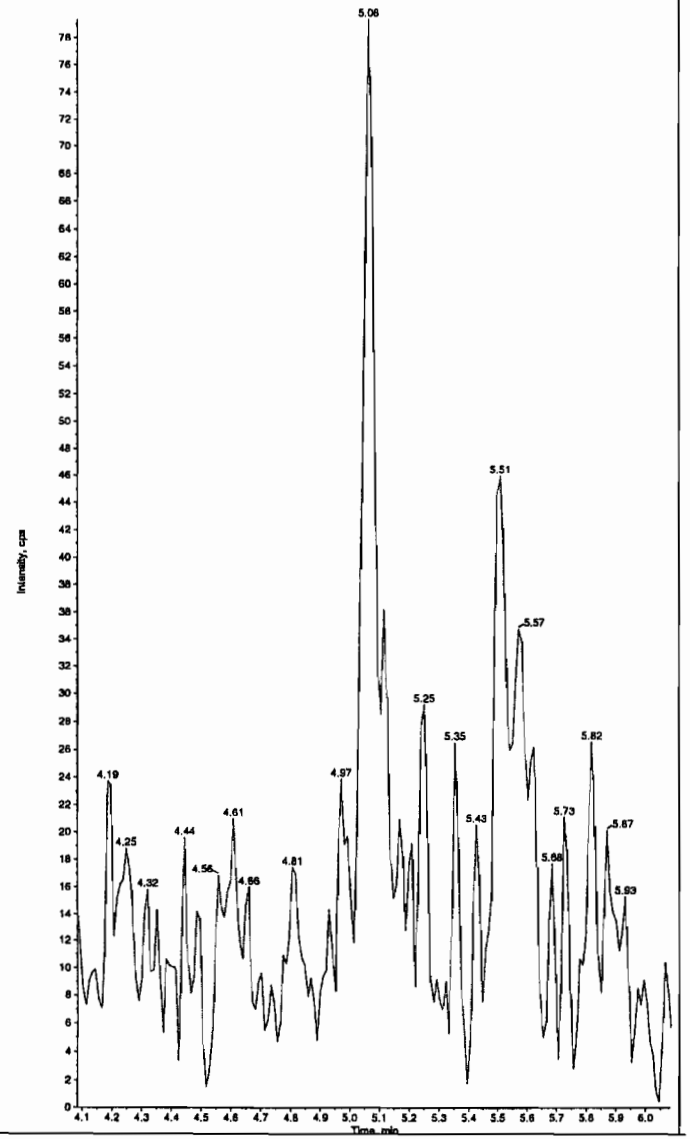
Modified: No



Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02250025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:47:01 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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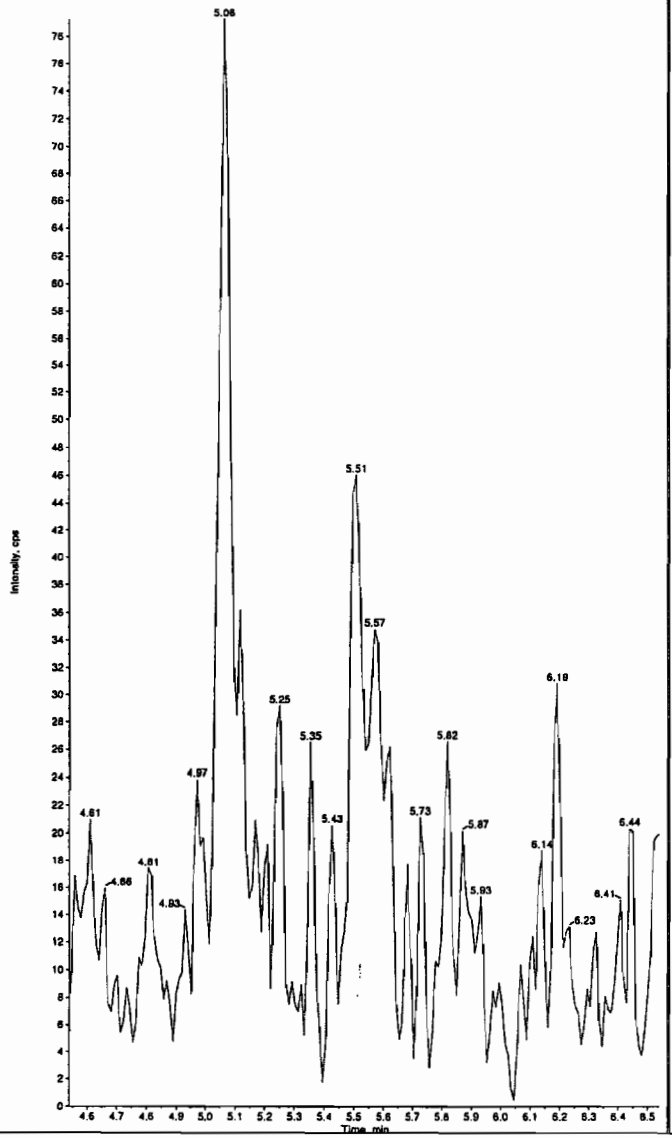
Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02250025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:47:01 PM

Modified: No

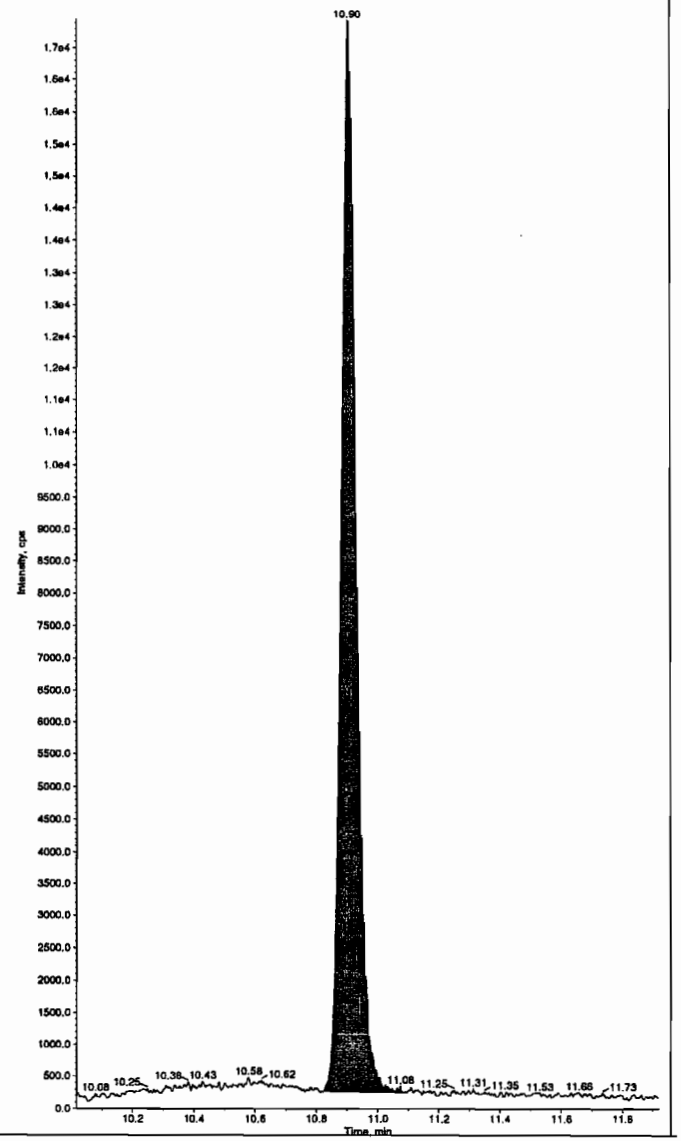


Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02250025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.89 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:47:01 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.92e+004 counts
Height: 16696.972 cps
Start Time: 10.8 min
End Time: 11.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1747

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 25-FEB-10 15:34

GEL Data File: EXS02250028.wiff

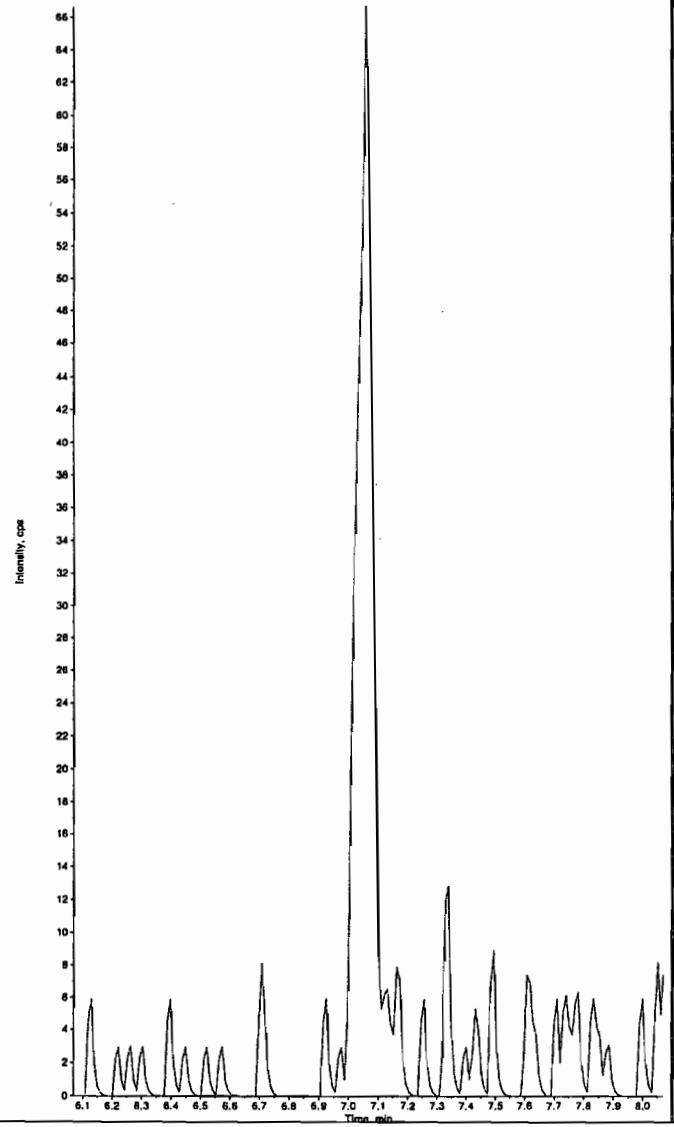
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.75
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

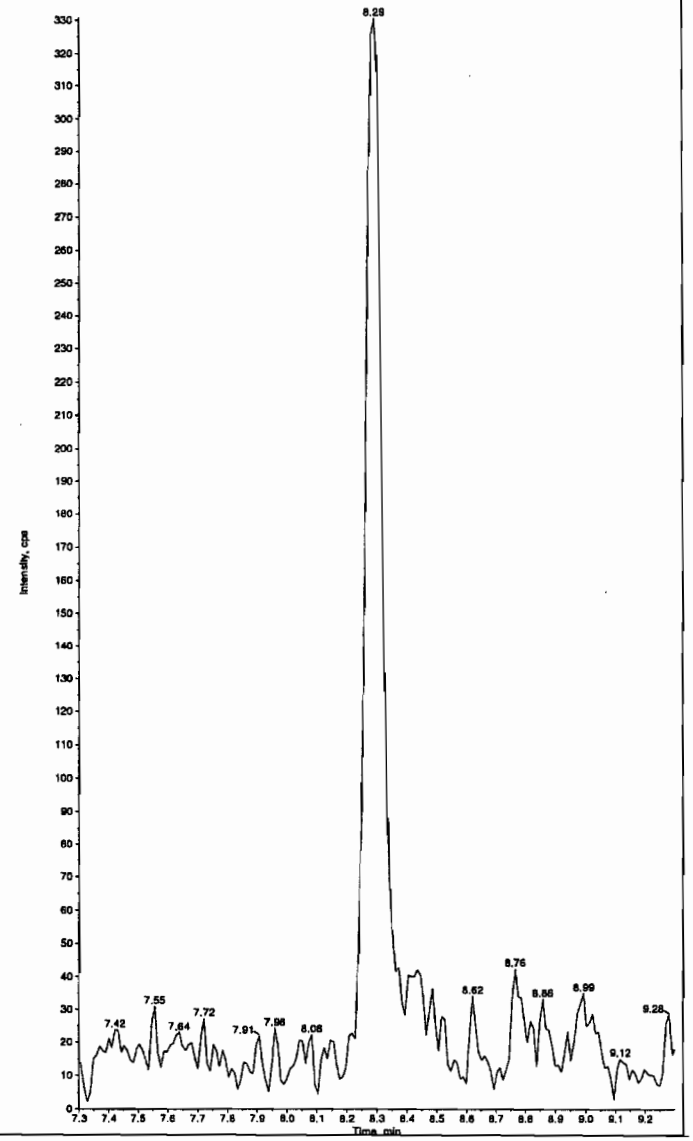
Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02250028.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:34:18 PM

Modified: No



Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02250028.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:34:18 PM

Modified: No



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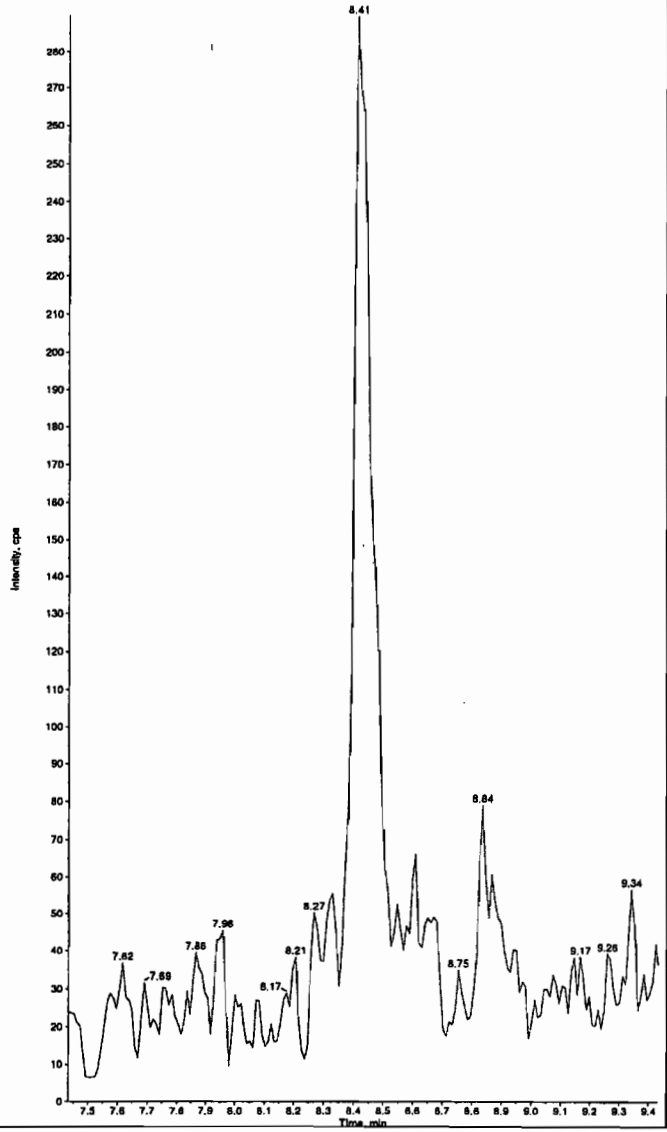
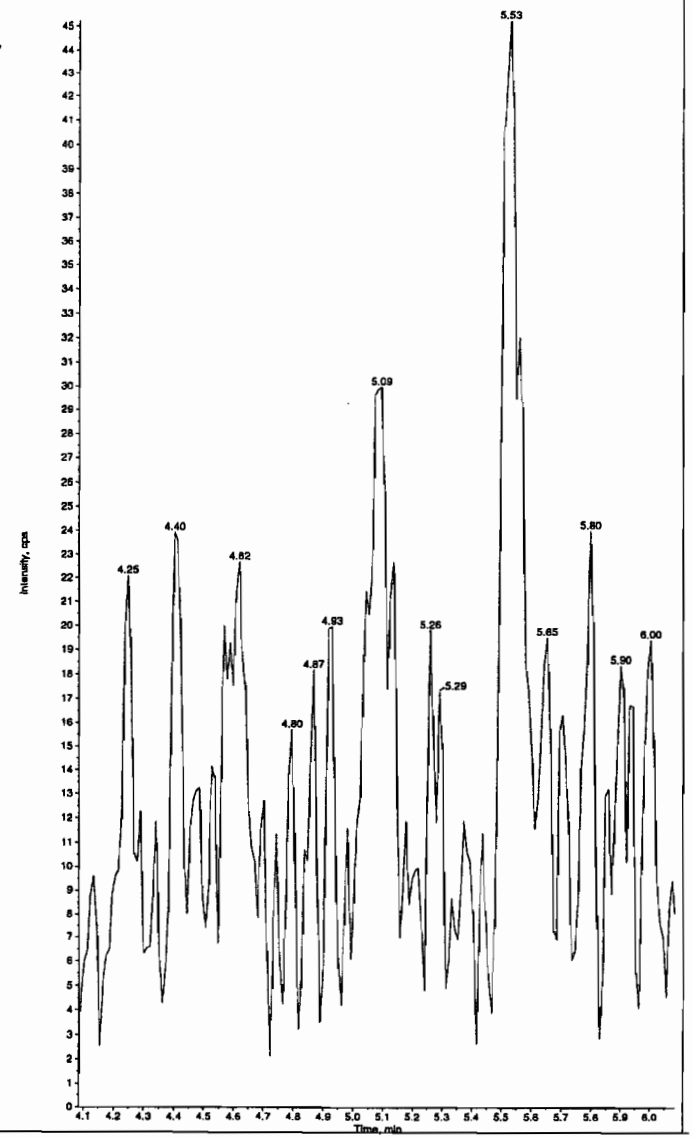
Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02250028.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:34:18 PM

Modified: No



Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02250028.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:34:18 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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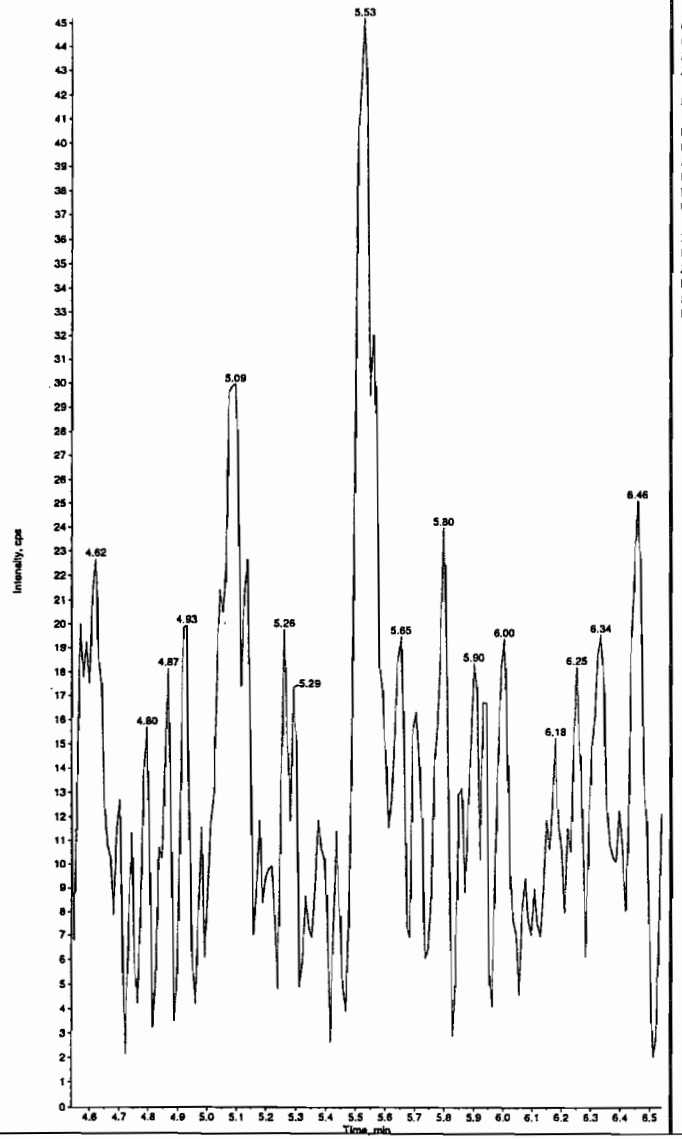
Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02250028.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:34:18 PM

Modified: No

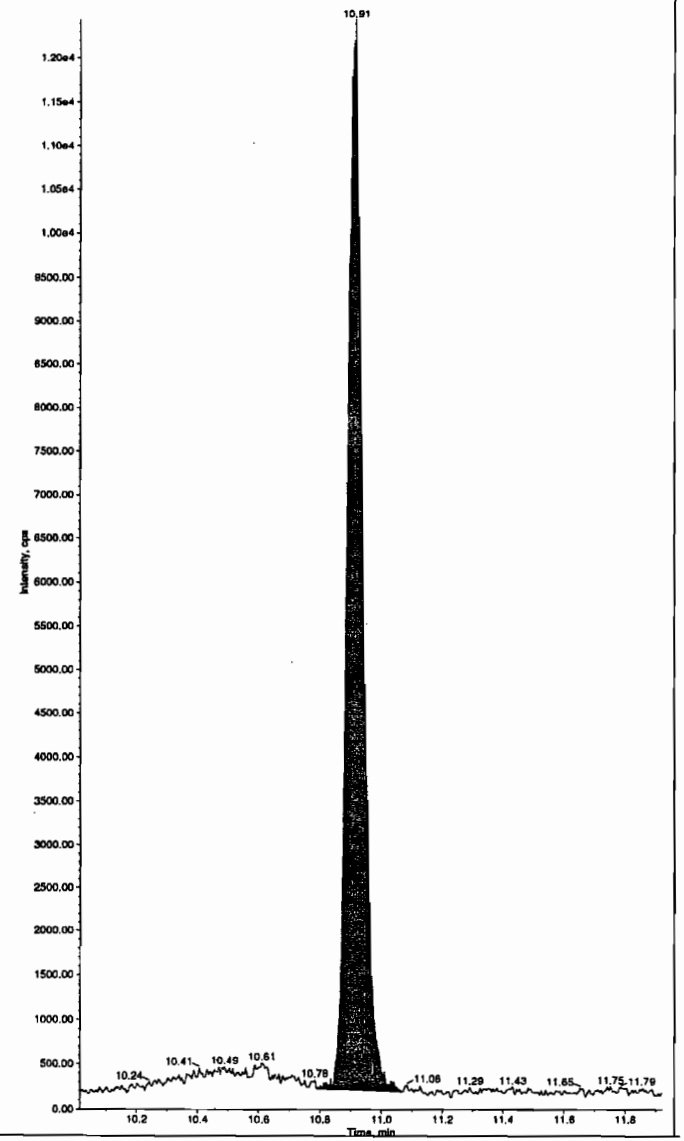


Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02250028.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.75 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:34:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.41e+004 counts
Height: 12244.290 cps
Start Time: 10.8 min
End Time: 11.1 min



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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1747

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 25-FEB-10 18:11

GEL Data File: EXS02250038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

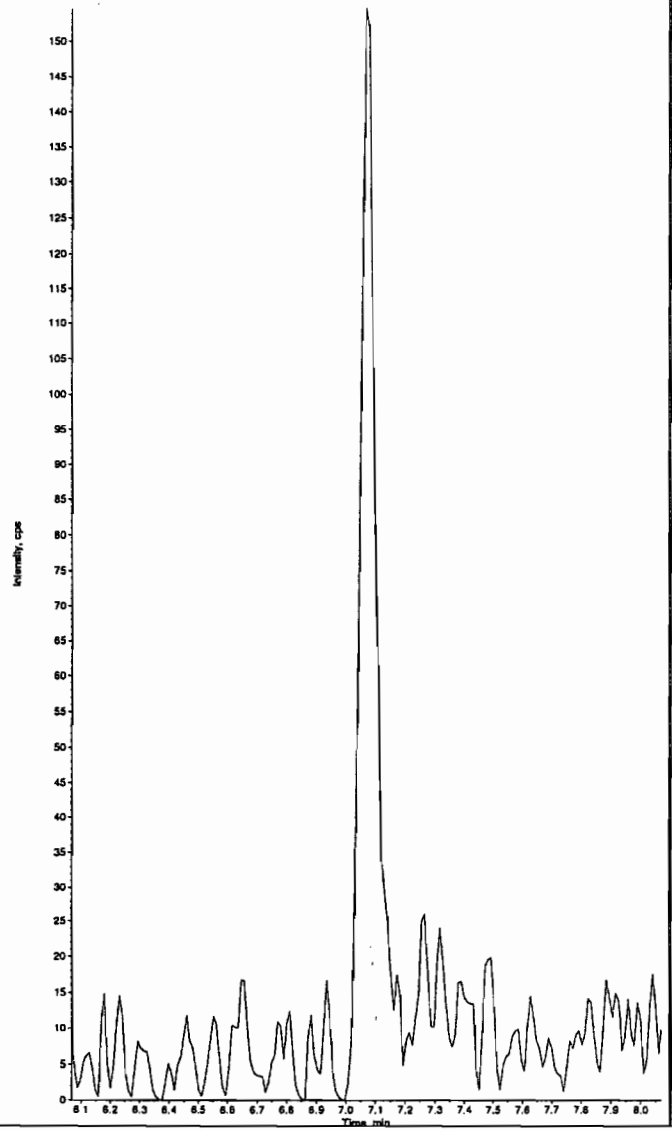
Compound	True	Found (ug/L)
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.13

Ran 2/26/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02250038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:11:47 PM

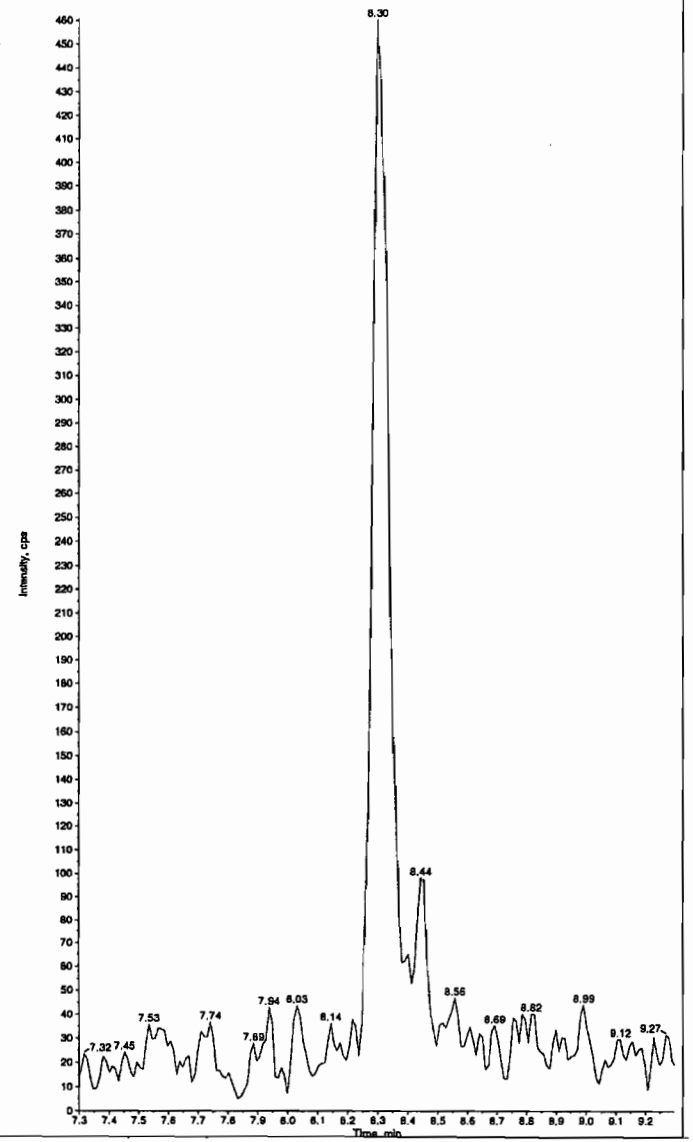
Modified: No



Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02250038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:11:47 PM

Modified: No



HMM 02/26/10

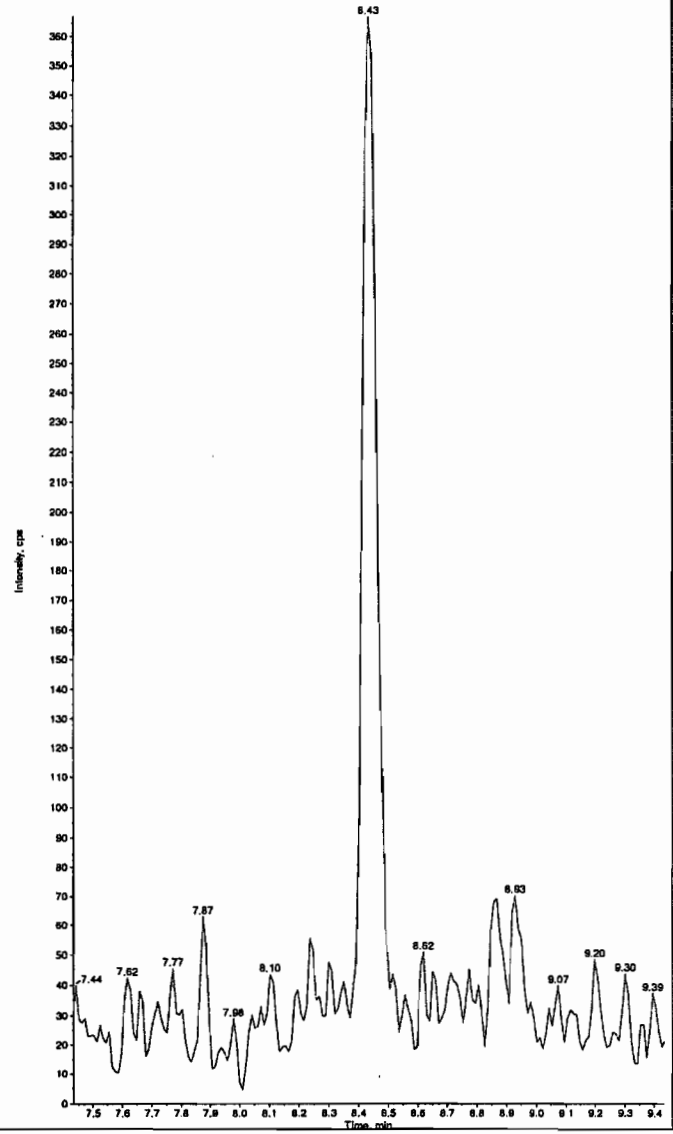
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02250038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:11:47 PM

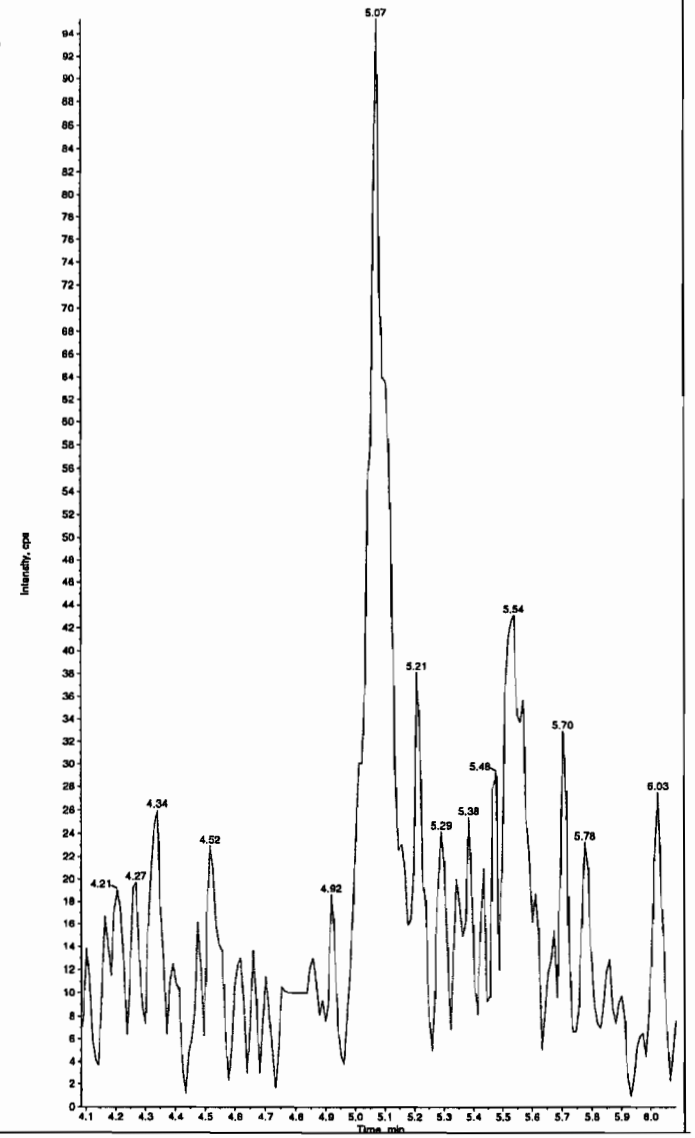
Modified: No



Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02250038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:11:47 PM

Modified: No



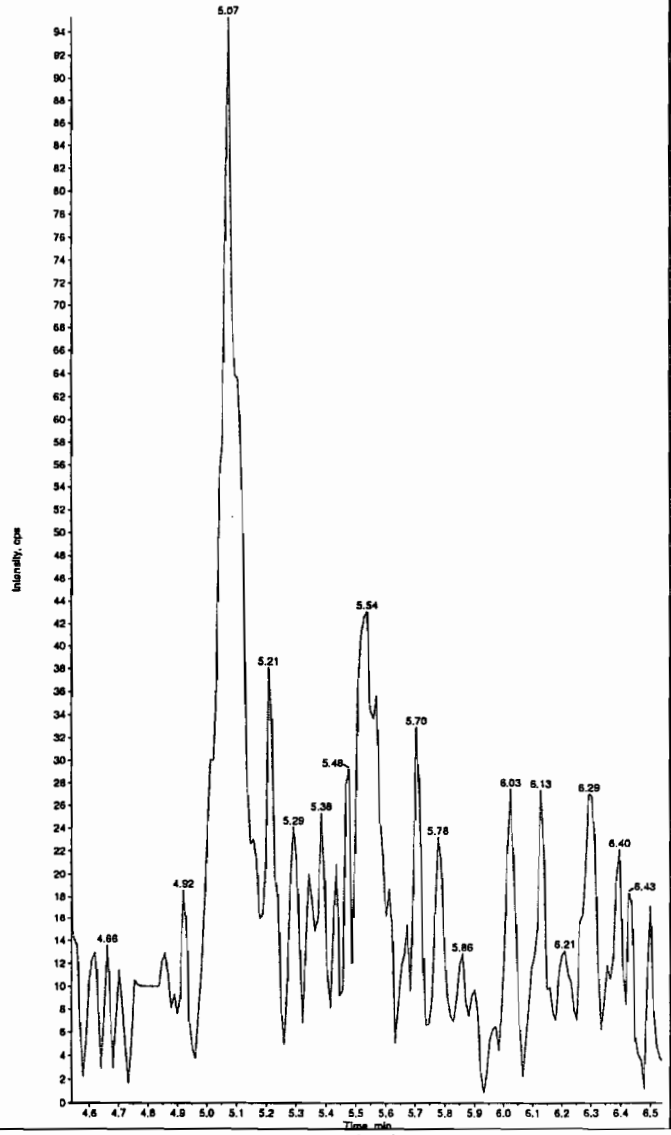
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02250038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:11:47 PM

Modified: No

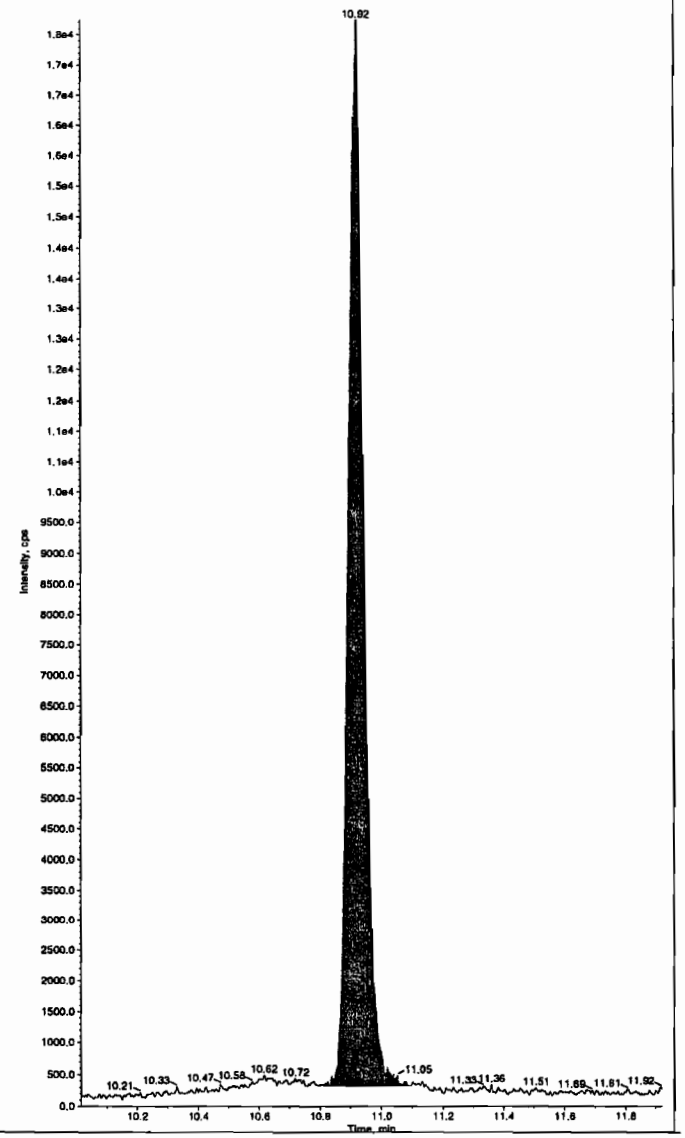


Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02250038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.13 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:11:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.25e+004 counts
Height: 17420.000 cps
Start Time: 10.8 min
End Time: 11.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 25–FEB–10 19:46

GEL Data File: EXS02250044.wiff

Instrument ID: LCMSMS

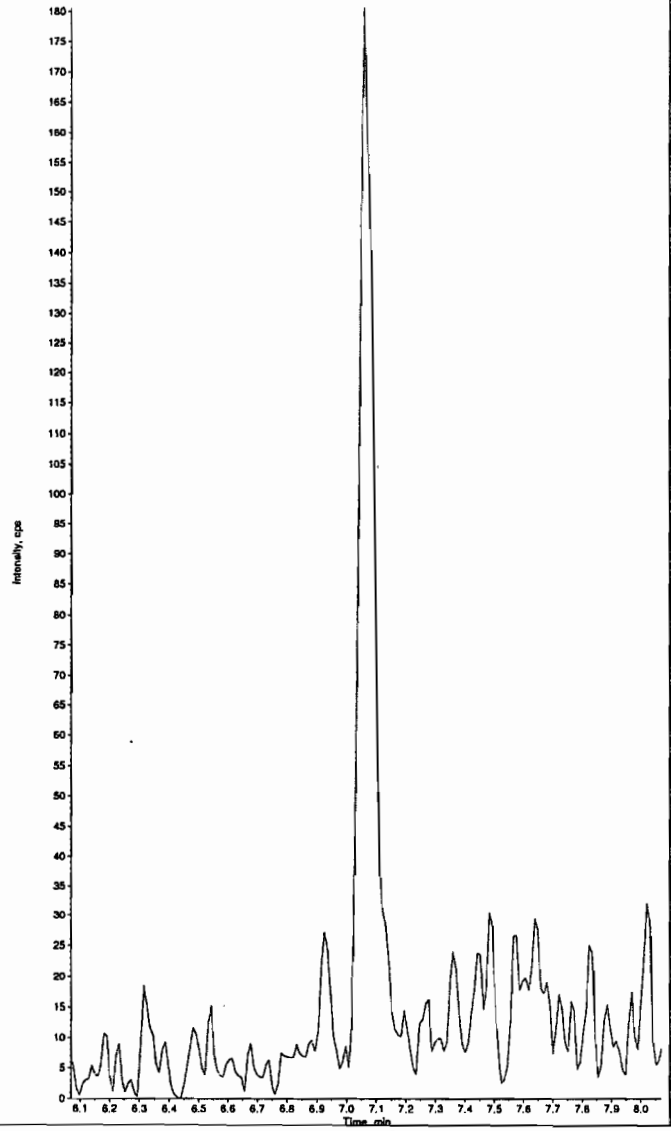
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	5.32
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/26/10

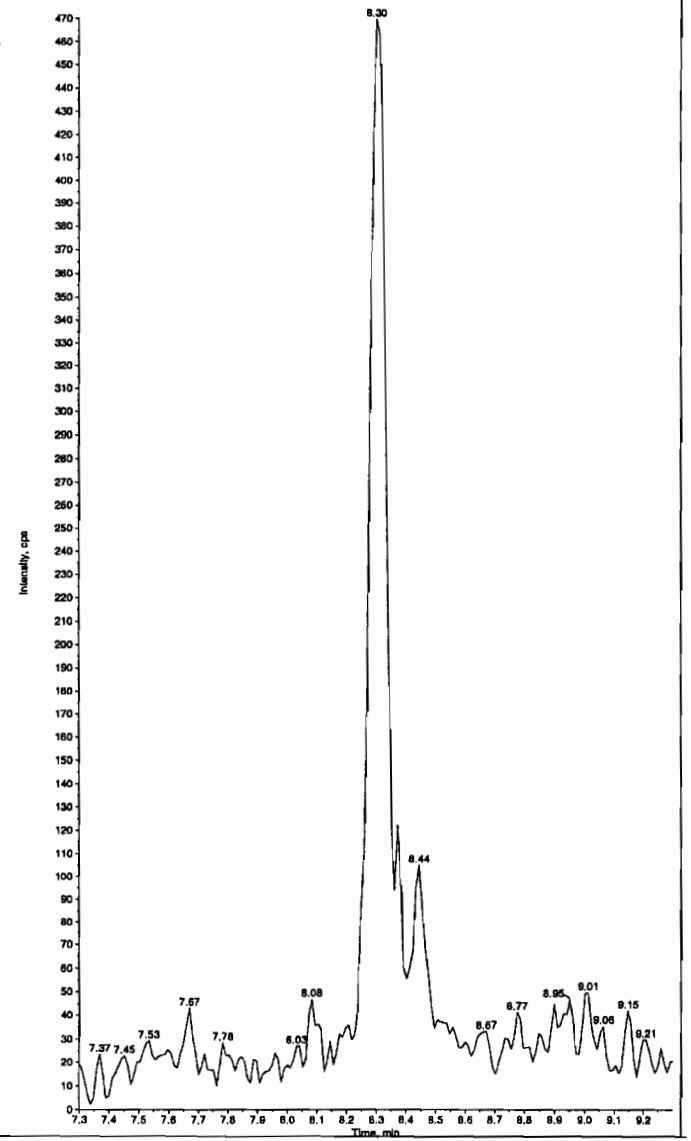
Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02250044.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:46:20 PM

Modified: No



Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02250044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:46:20 PM

Modified: No



Hmm 2/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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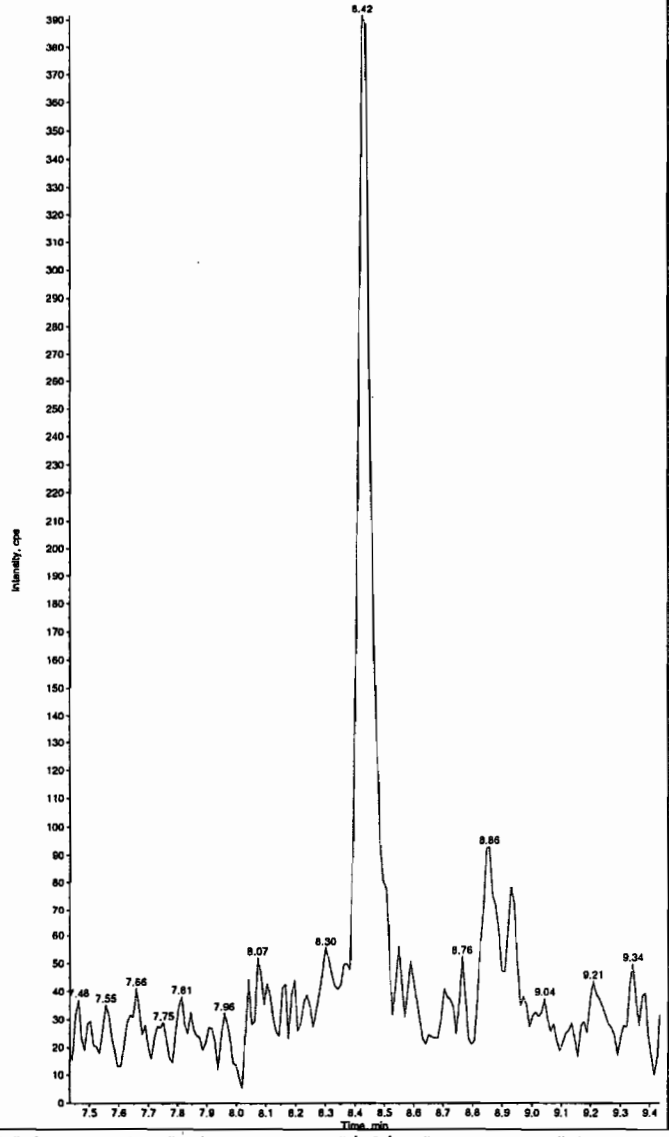
Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02250044.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:46:20 PM

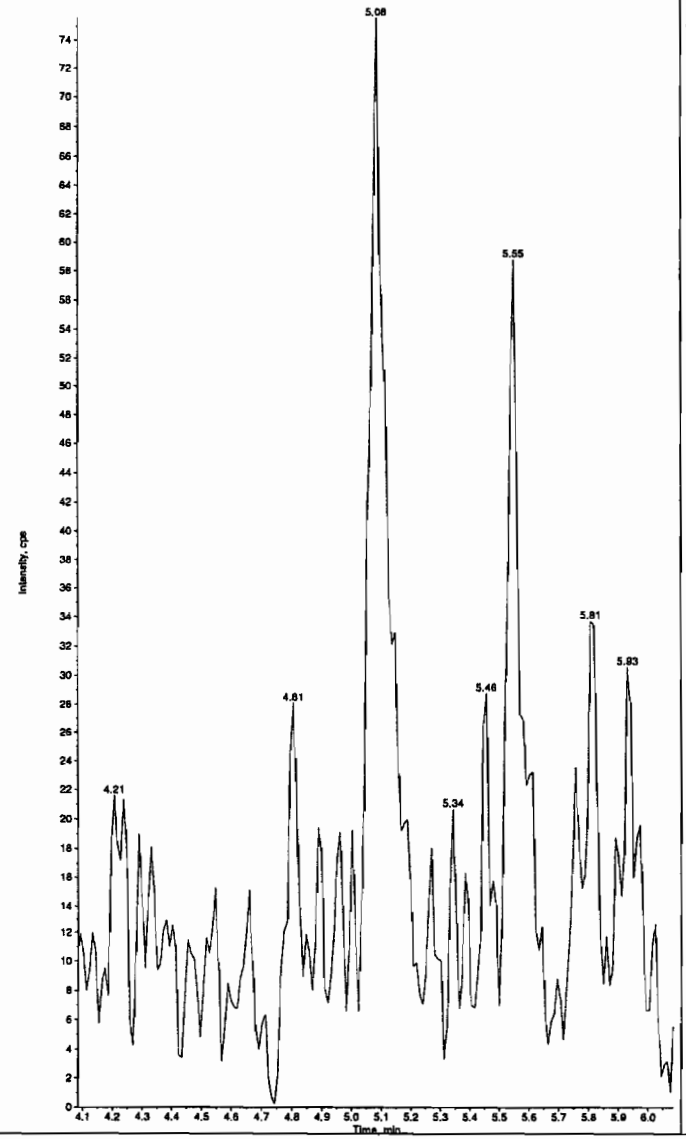
Modified: No



Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02250044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:46:20 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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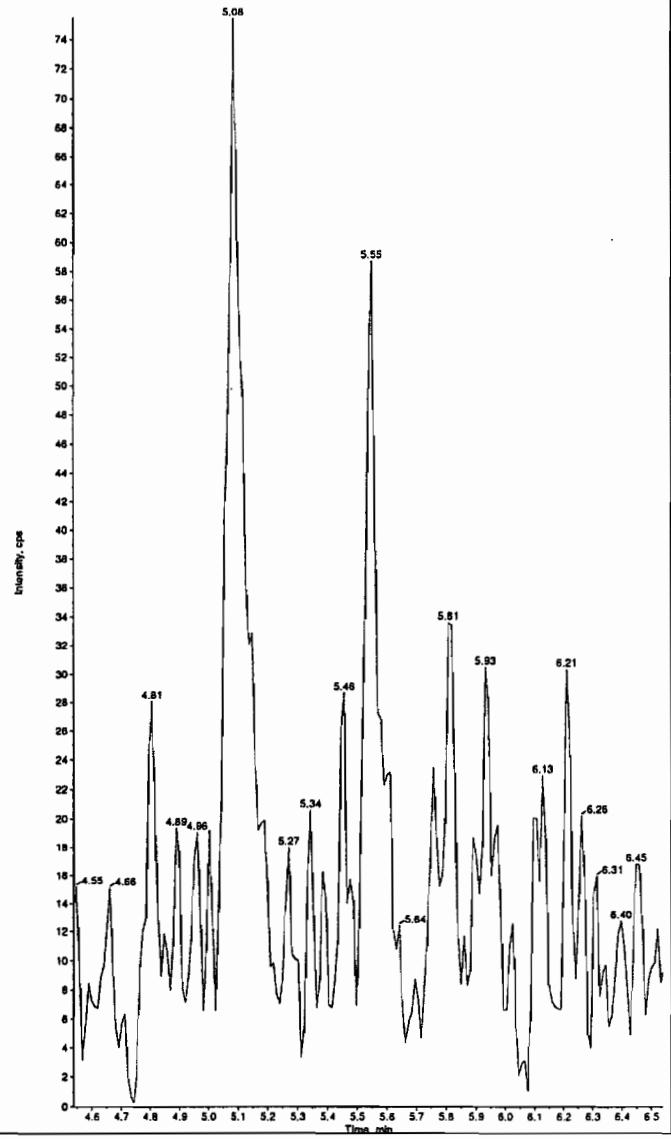
Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02250044.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:46:20 PM

Modified: No

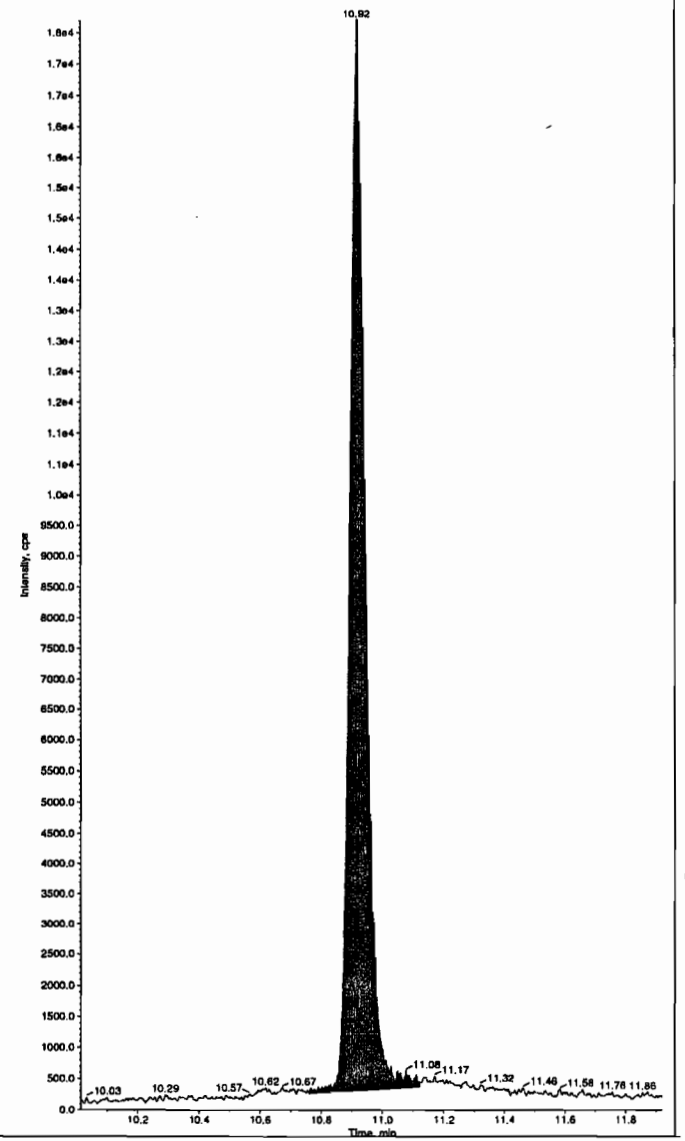


Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02250044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.32 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:46:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.49e+004 counts
Height: 17412.056 cps
Start Time: 10.8 min
End Time: 11.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1747

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 25-FEB-10 23:10

GEL Data File: EXS02250057.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

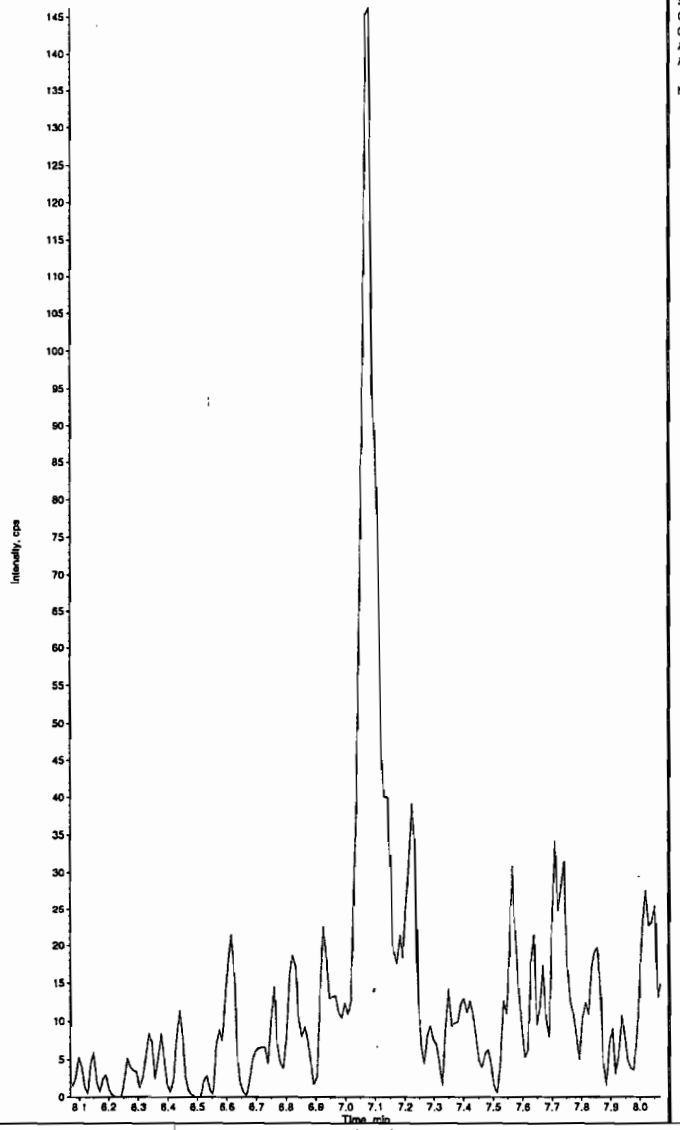
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.73
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lan 2/26/10

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02250057.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:10:27 PM

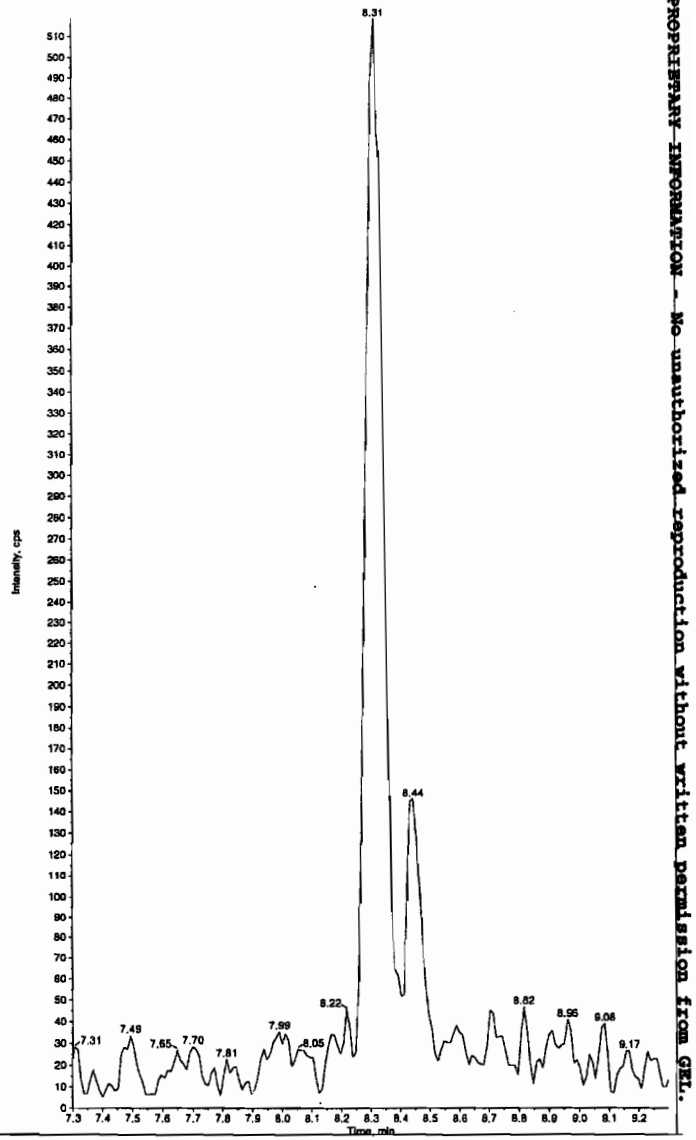
Modified: No



Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02250057.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:10:27 PM

Modified: No



Hm 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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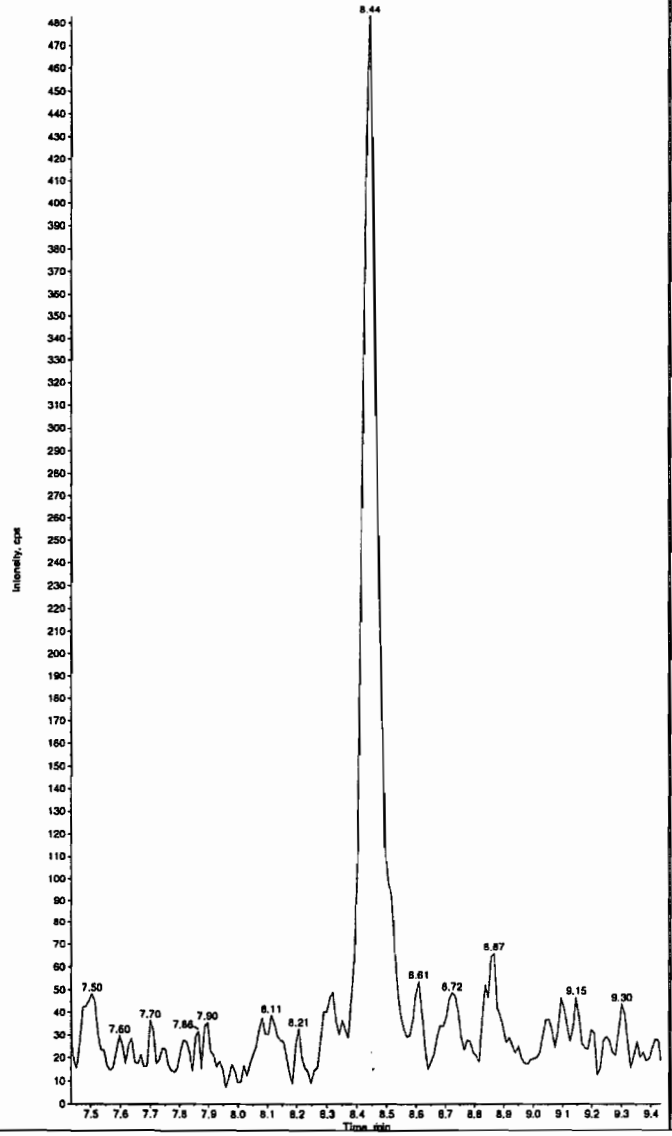
Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02250057.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:10:27 PM

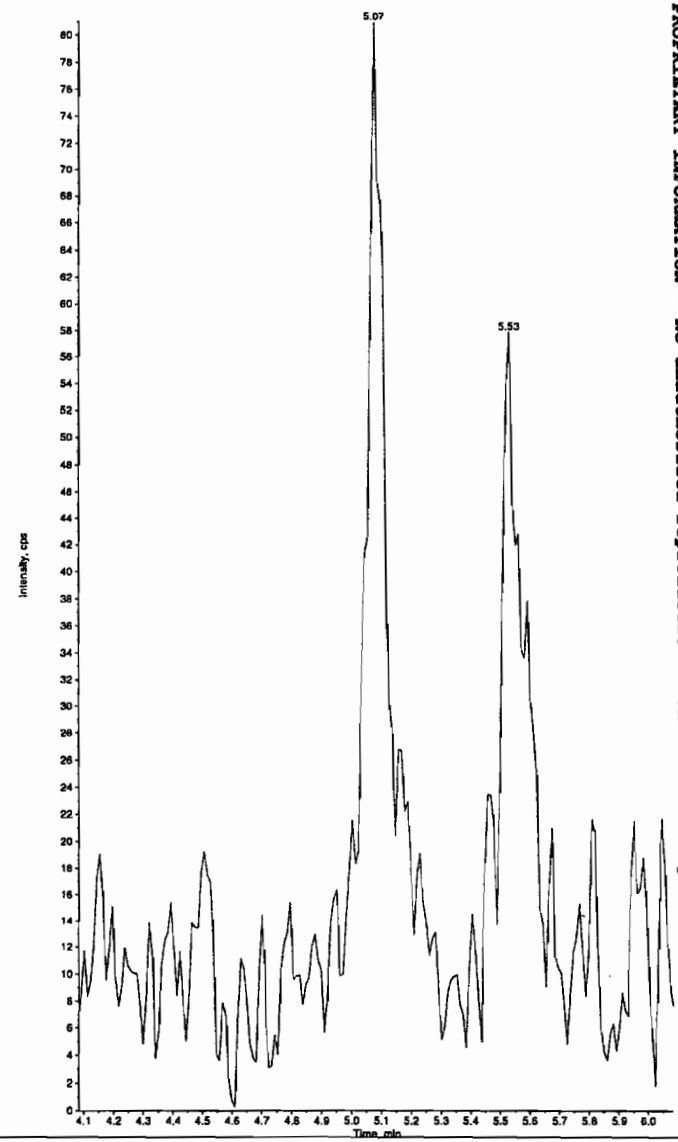
Modified: No



Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02250057.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:10:27 PM

Modified: No



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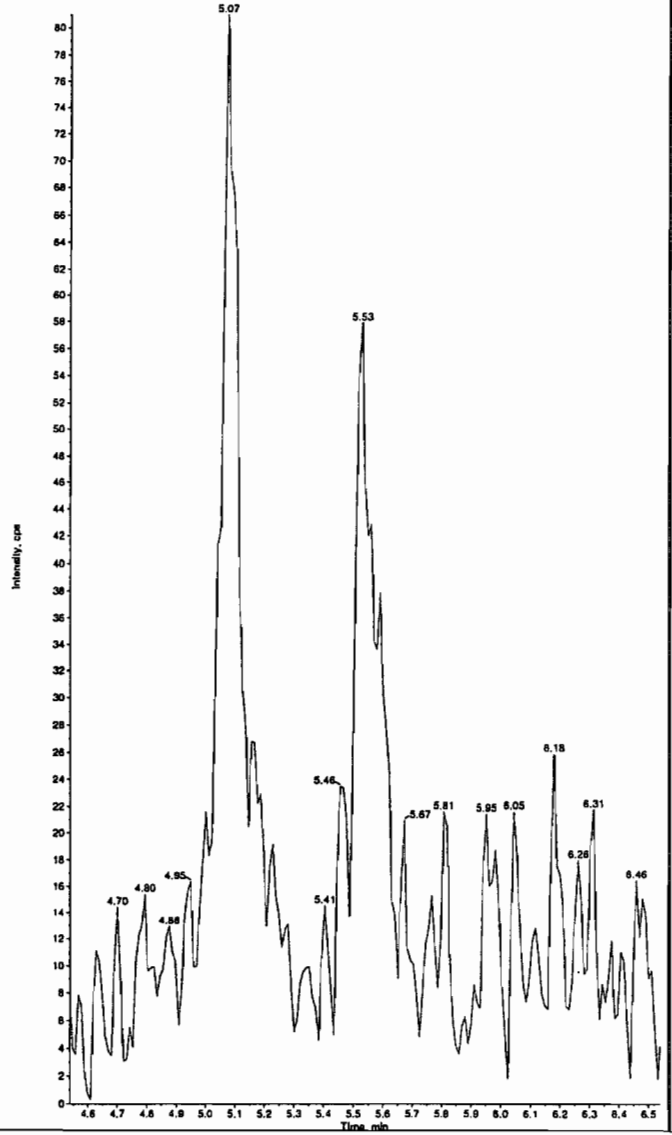
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02250057.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:10:27 PM

Modified: No

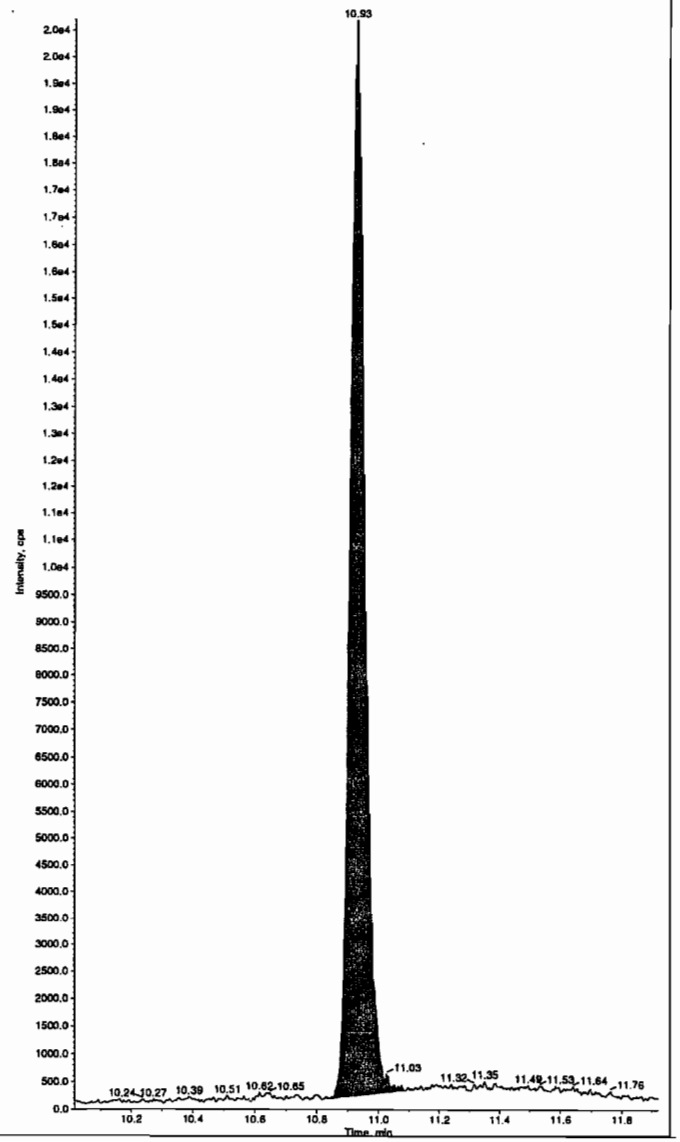


Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02250057.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.73 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:10:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.04e+004 counts
Height: 19941.061 cps
Start Time: 10.8 min
End Time: 11.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 26–FEB–10 17:15

GEL Data File: EXS02260010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

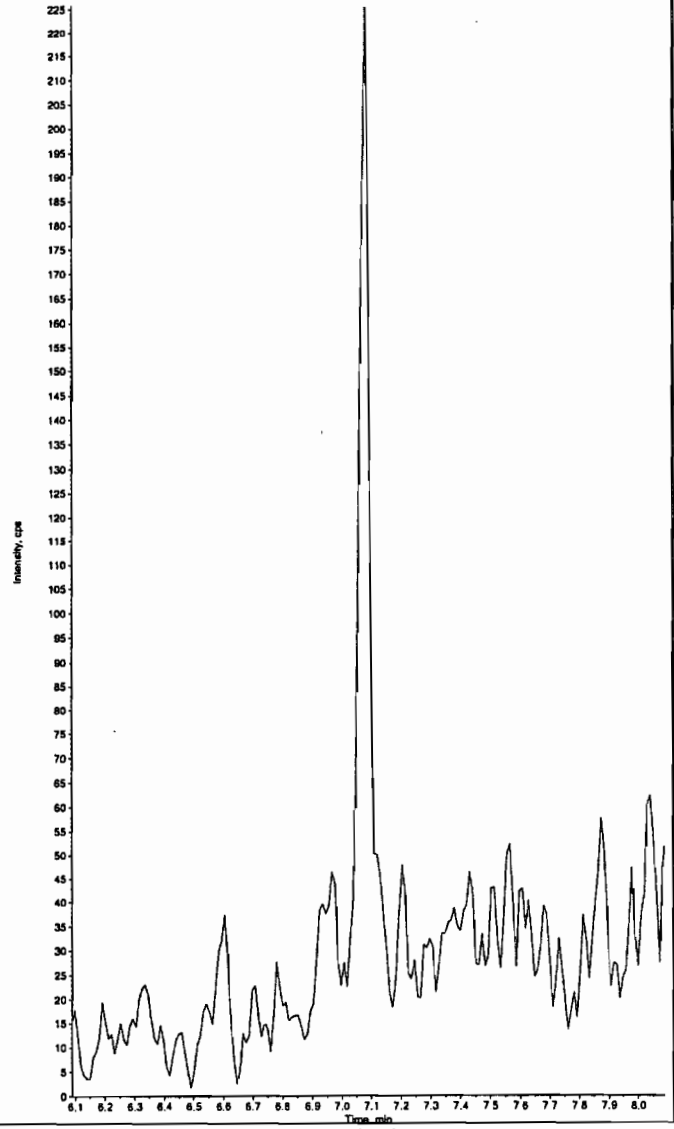
Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Rcn 3/1/10

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

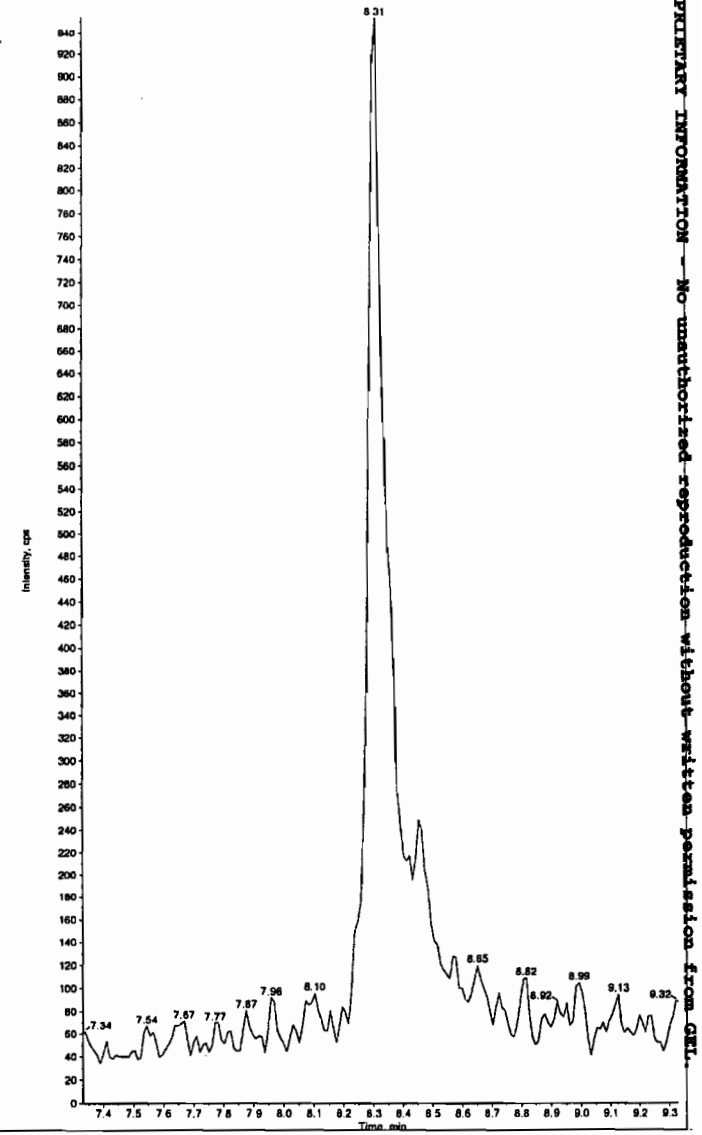
Modified: No



Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No



Hnm 03/01/10

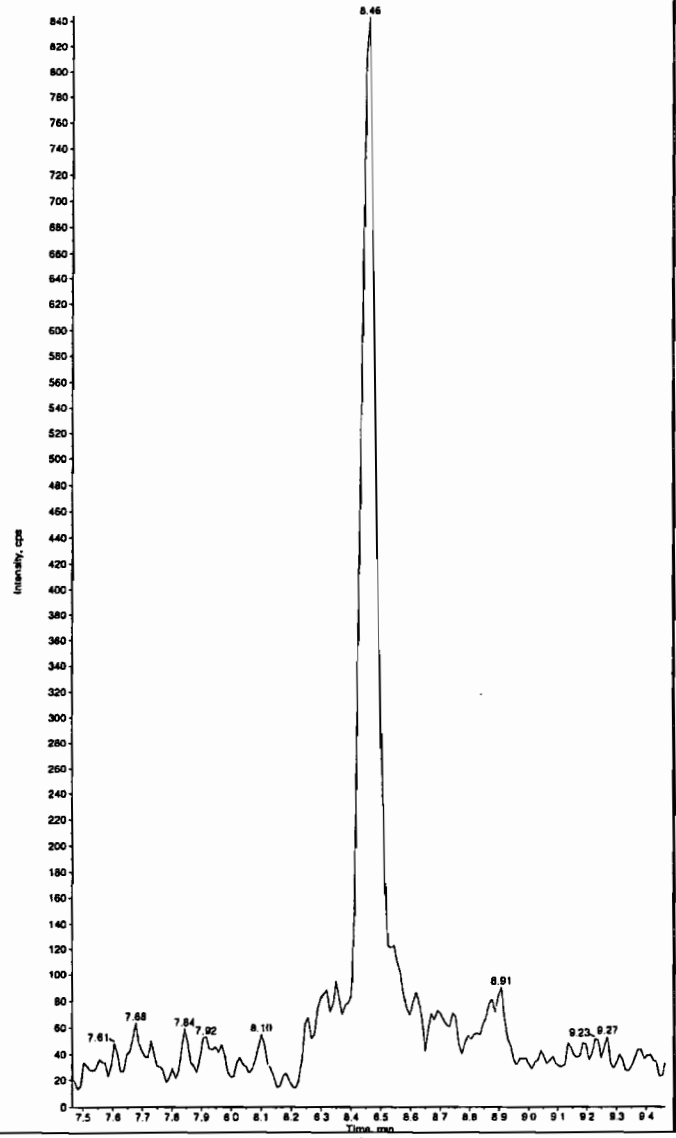
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02260010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

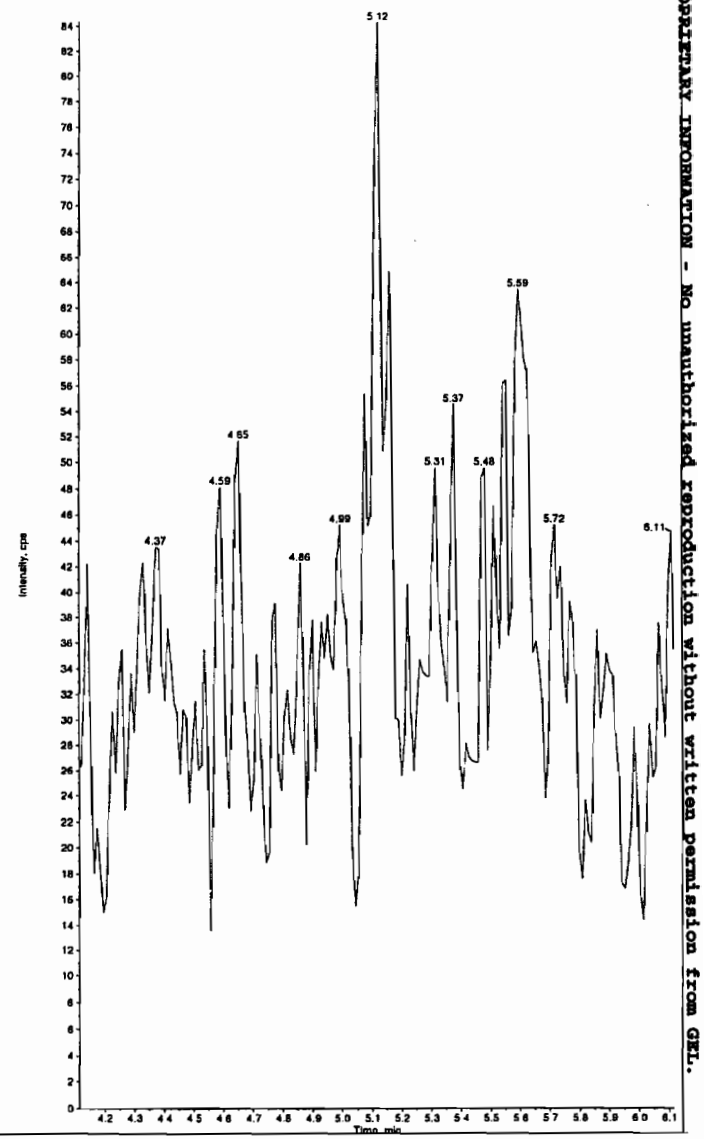
Modified: No



Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02260010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No



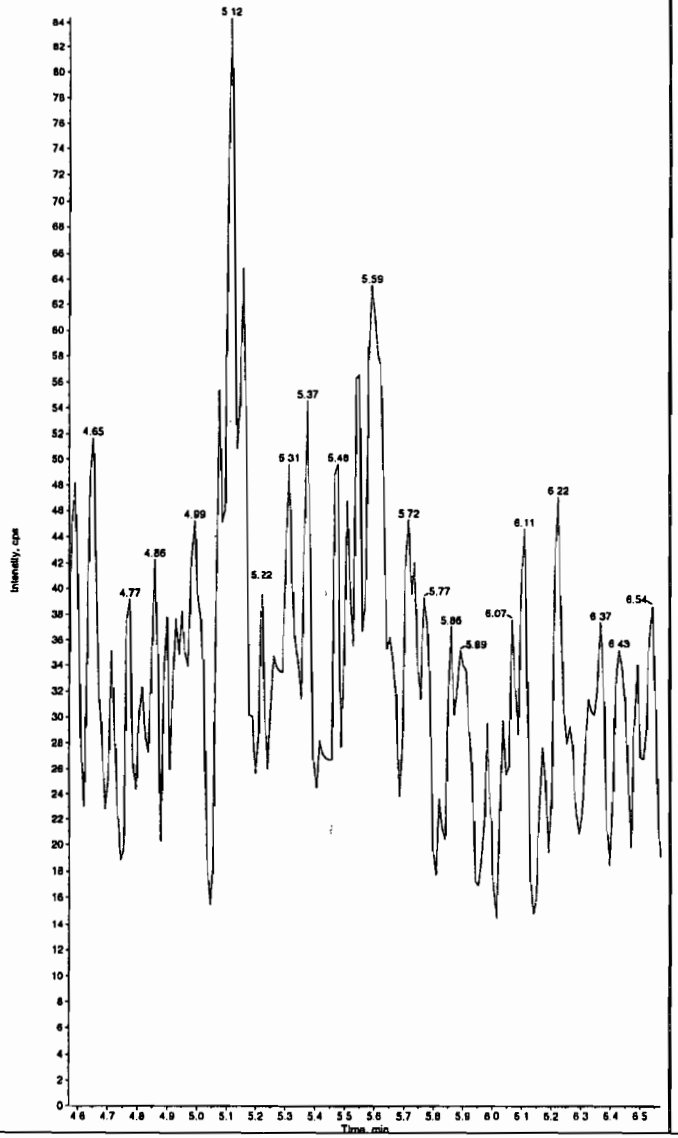
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02260010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No

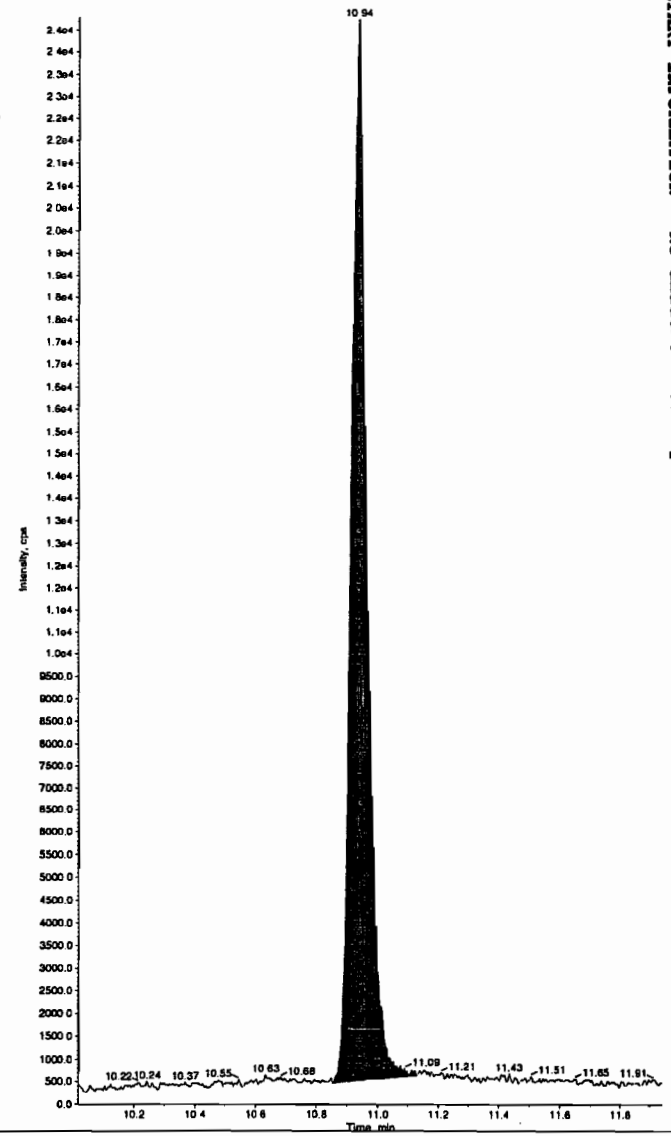


Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02260010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.88e+004 counts
Height: 23771.599 cps
Start Time: 10.9 min
End Time: 11.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 26–FEB–10 17:46

GEL Data File: EXS02260012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

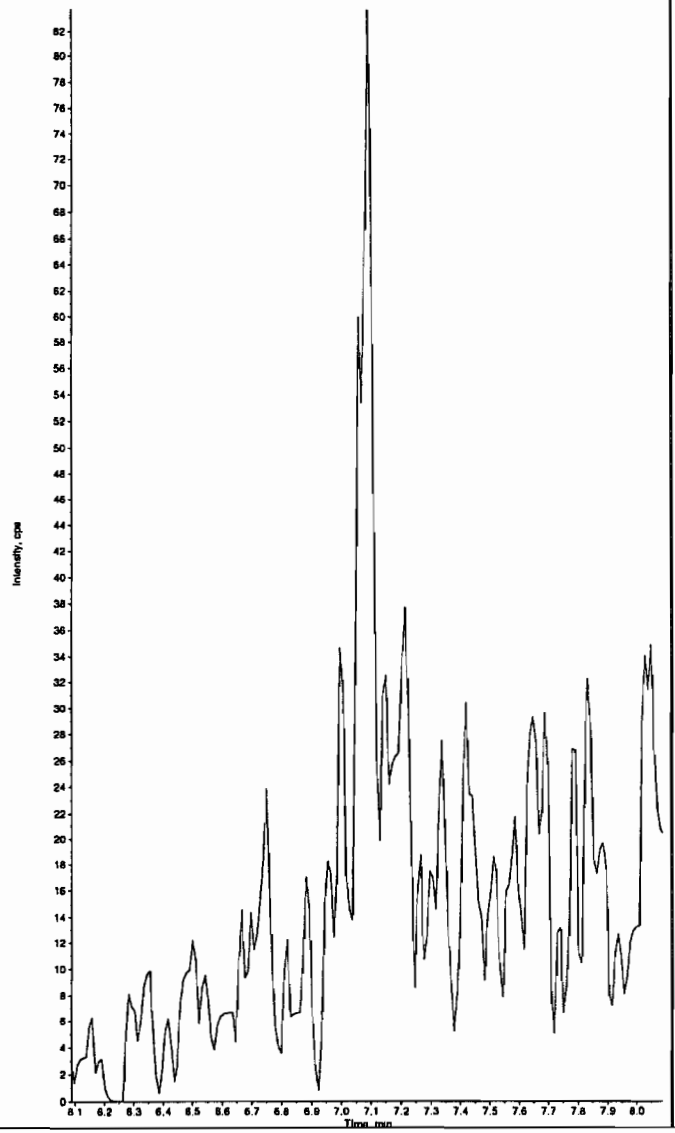
Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sam 3/1/10

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

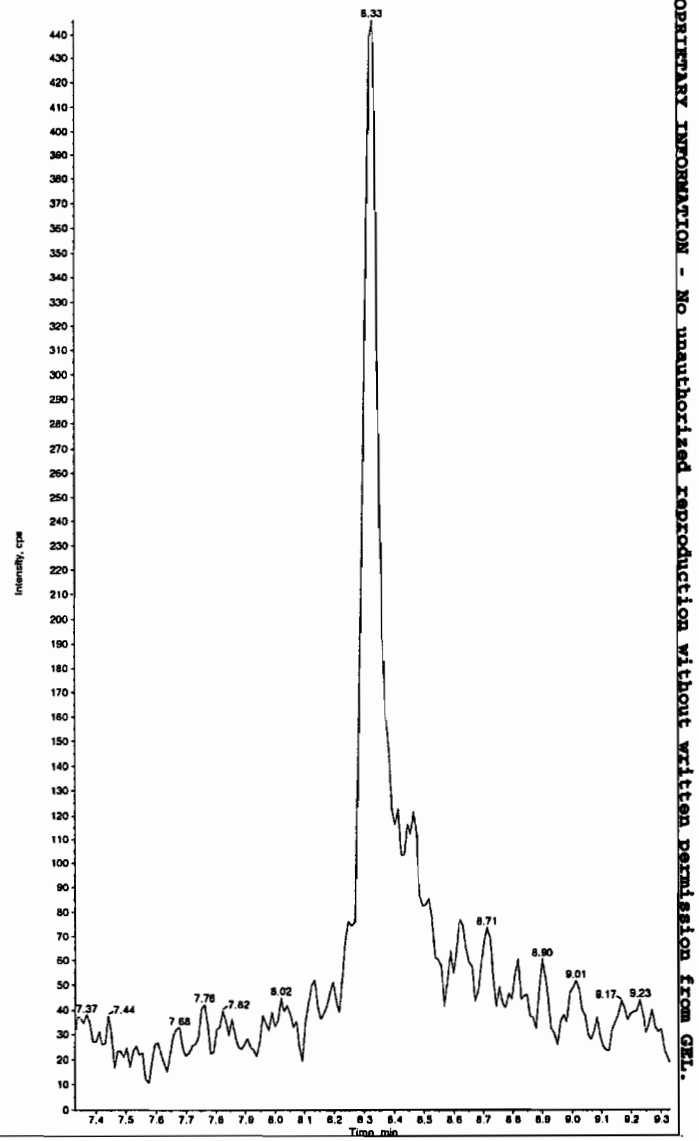
Modified: No



Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No



Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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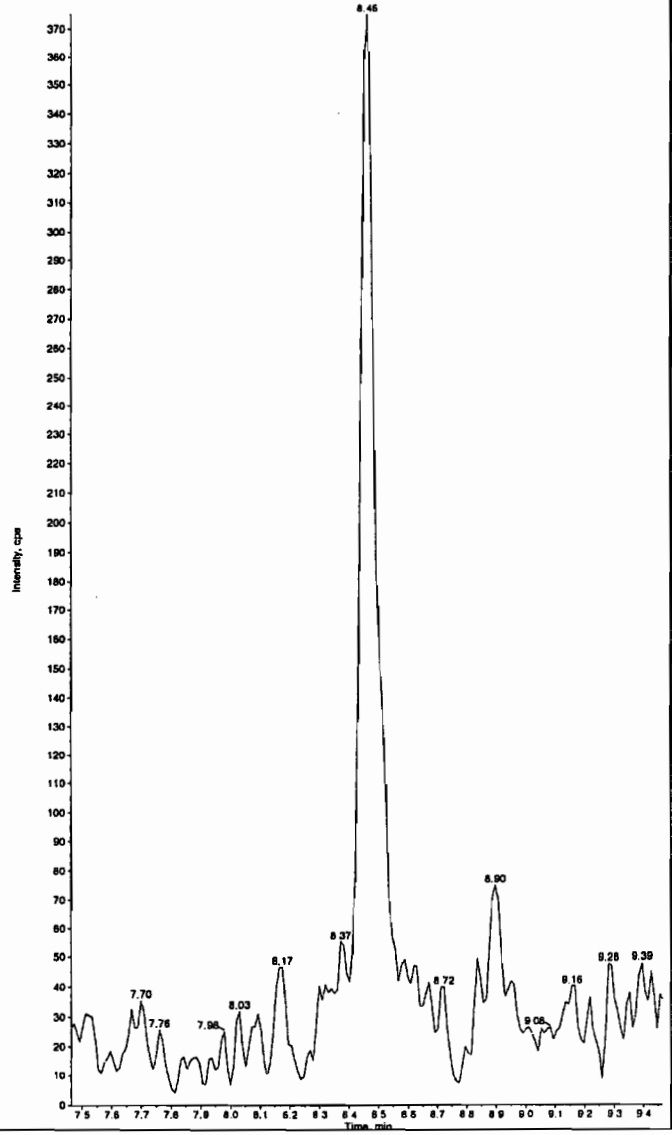
Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

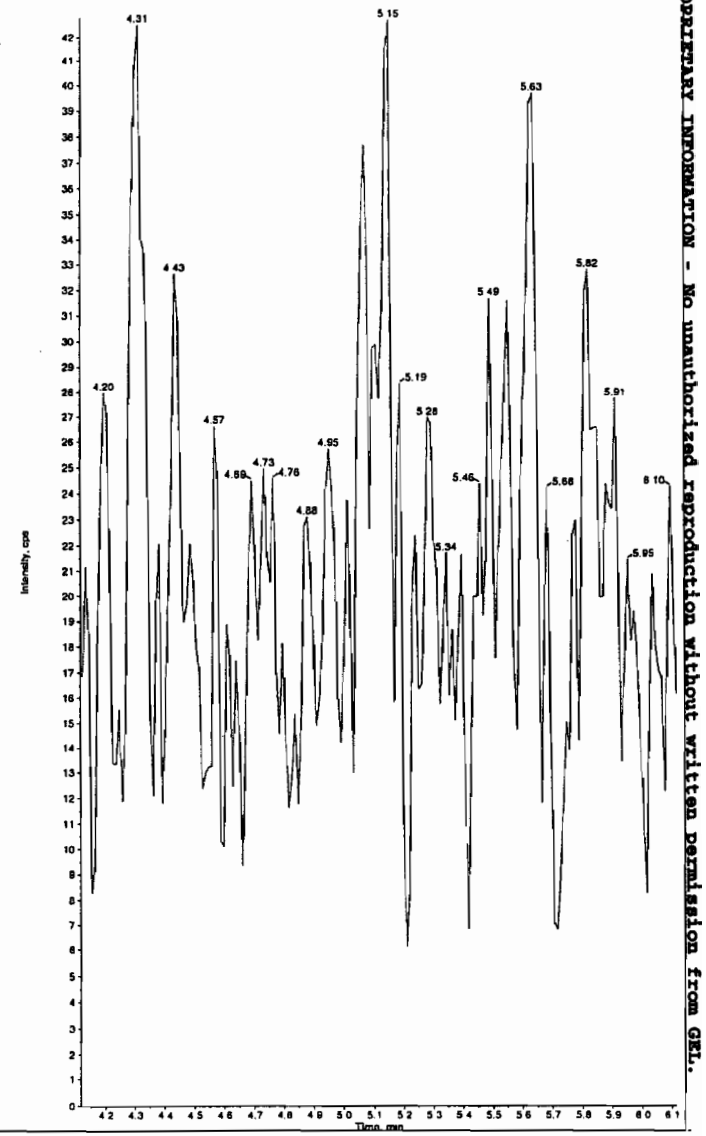
Modified: No



Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "165.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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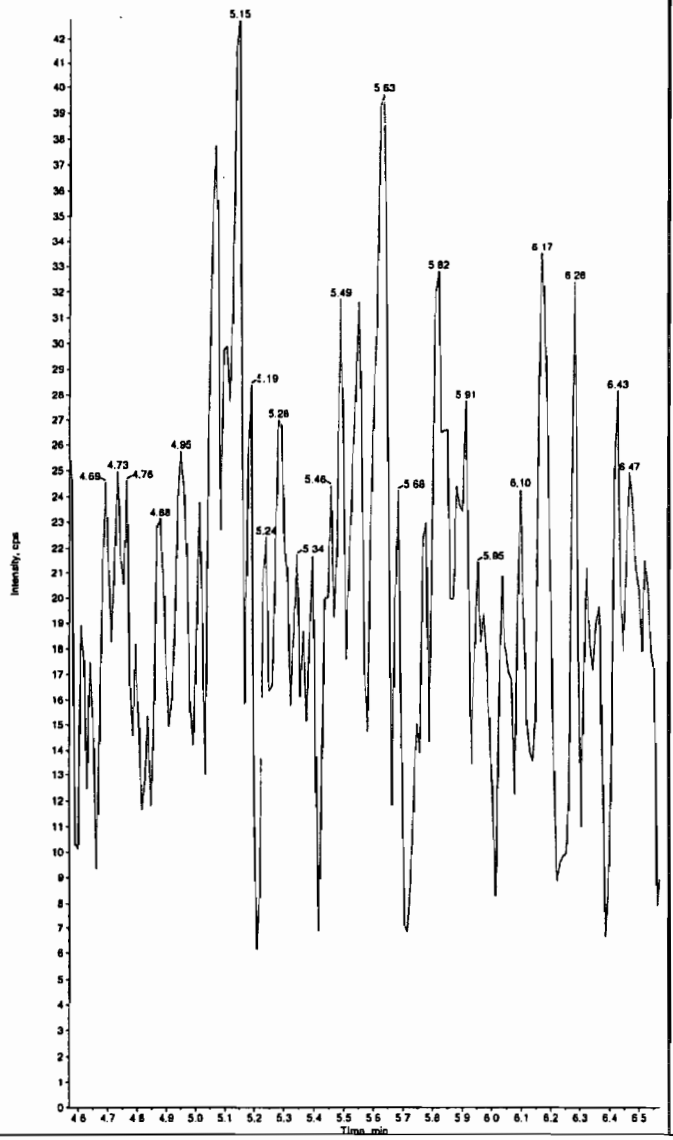
Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02260012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No

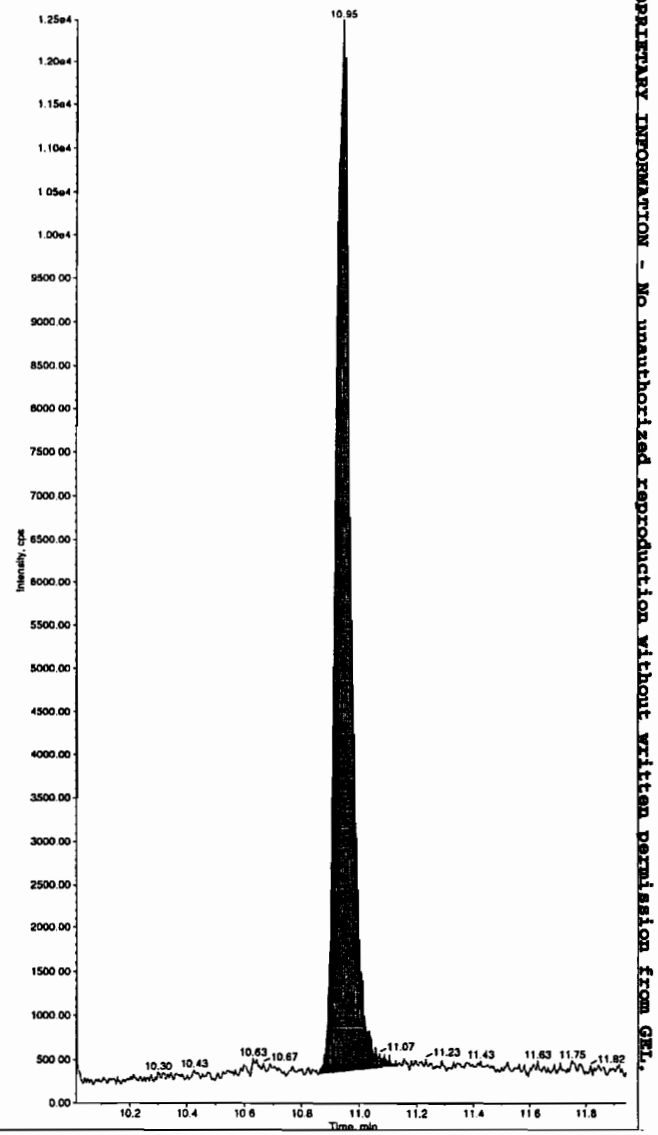


Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02260012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.68e+004 counts
Height: 12137.585 cps
Start Time: 10.9 min
End Time: 11.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1747

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 26–FEB–10 21:10

GEL Data File: EXS02260025.wiff

Instrument ID: LCMSMS

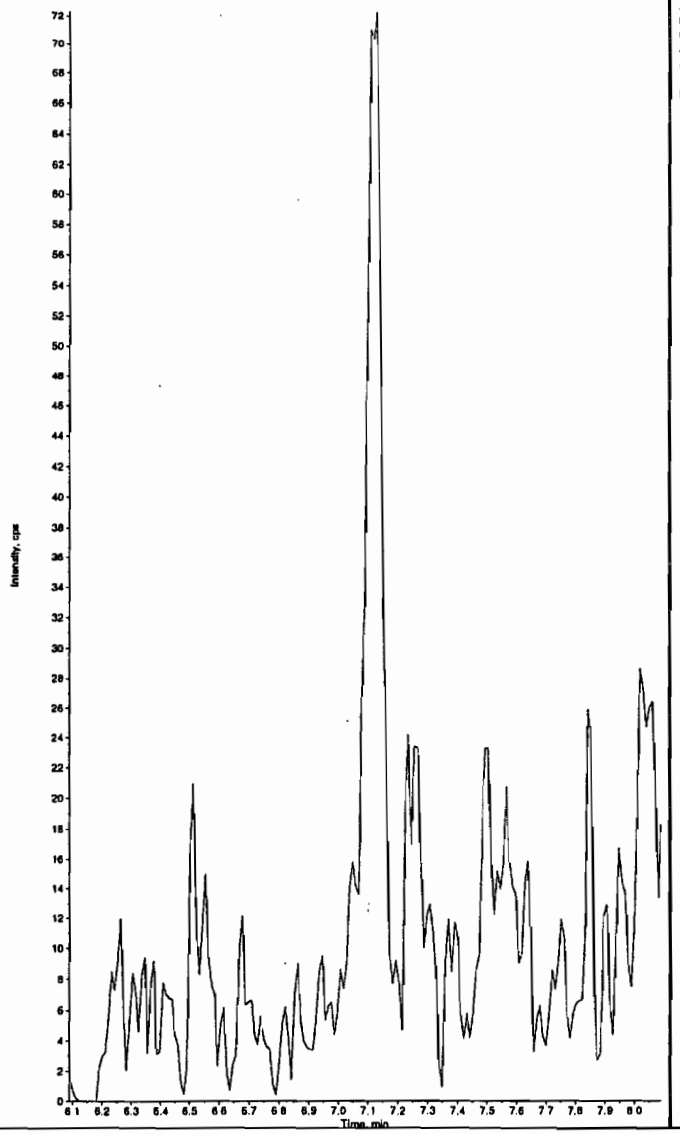
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0

Lcn 3/1/10

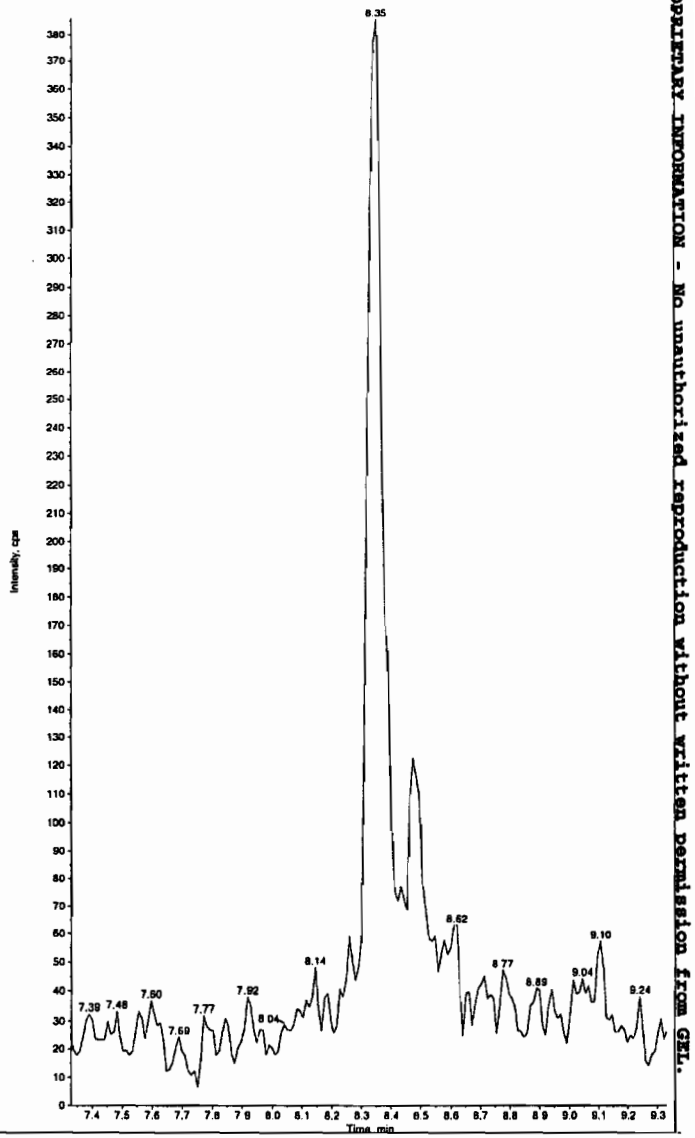
Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No



Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No



Hnm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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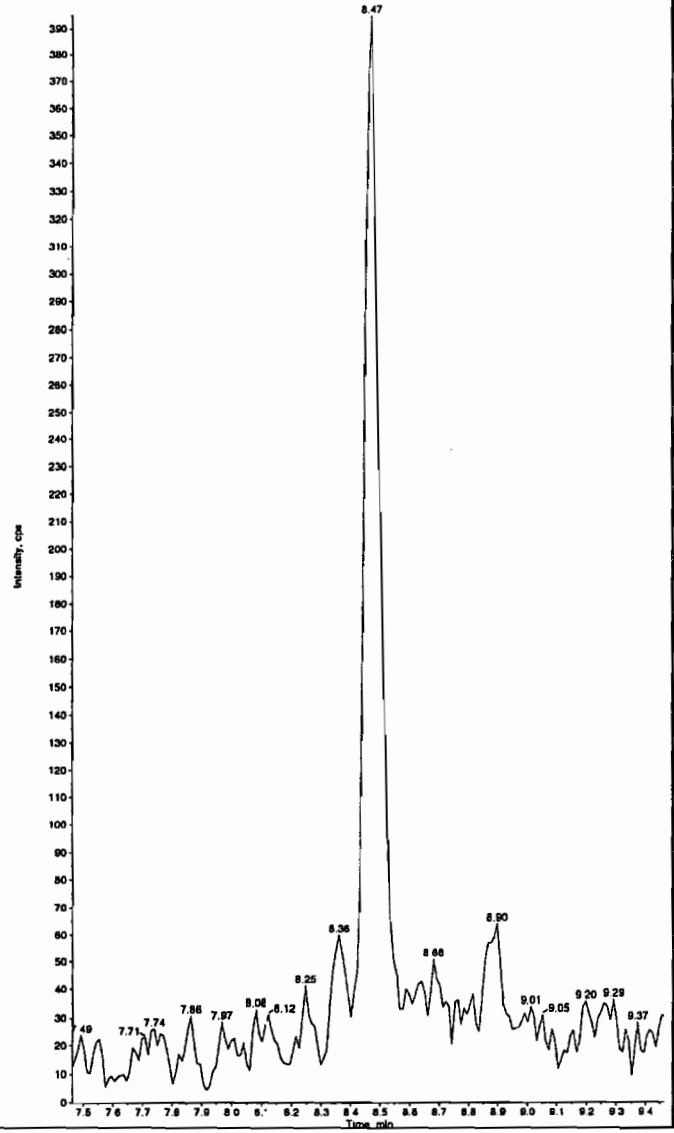
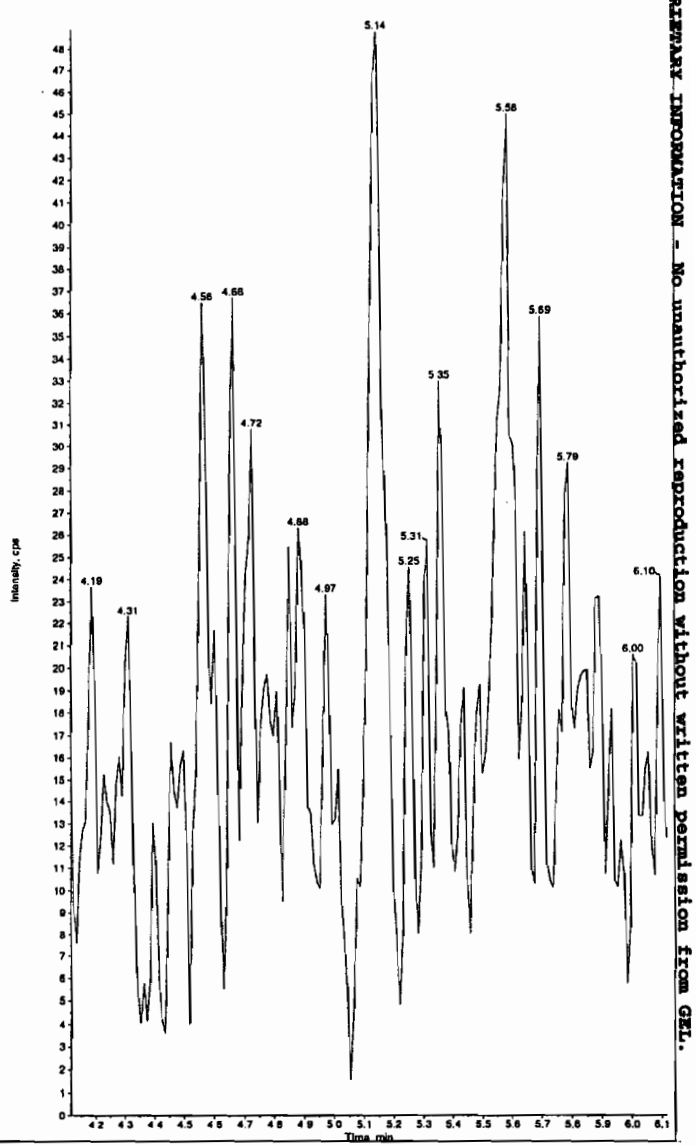
Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No



Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No



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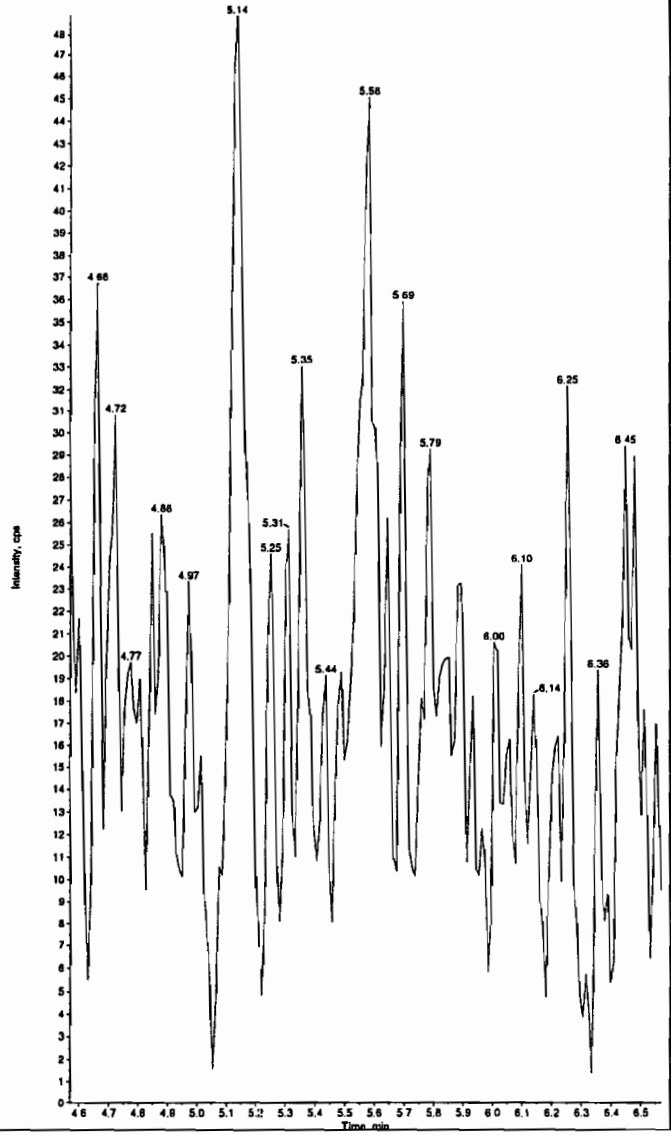
Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02260025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No

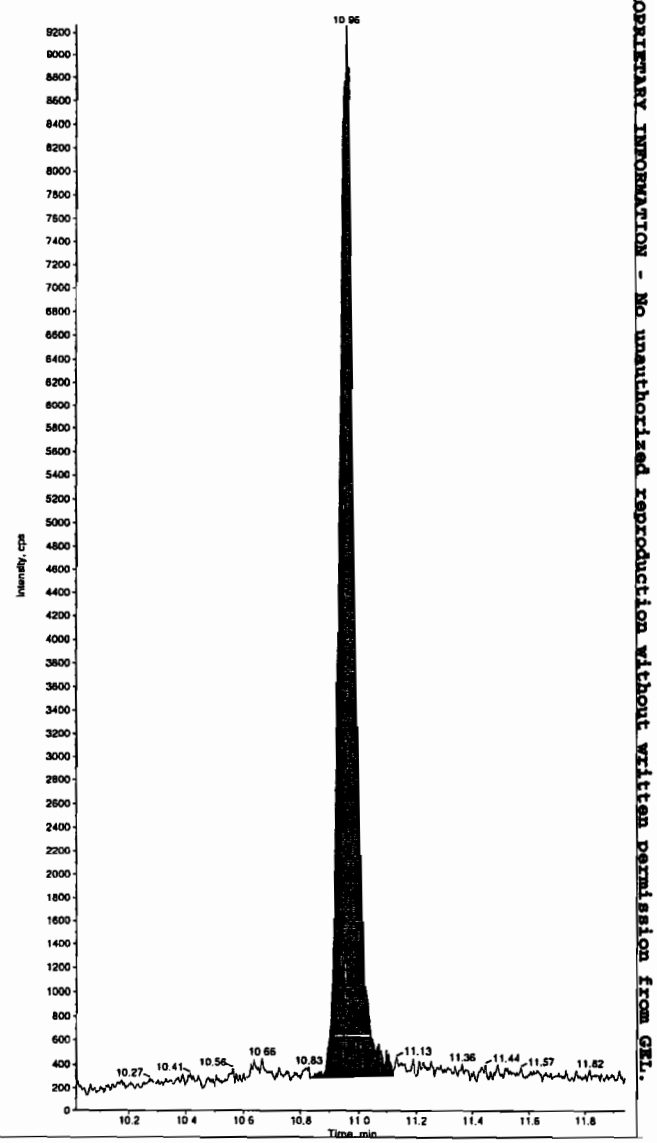


Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02260025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 3.47e+004 counts
Height: 8966.046 cps
Start Time: 10.8 min
End Time: 11.1 min



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Nairb.ref

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

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

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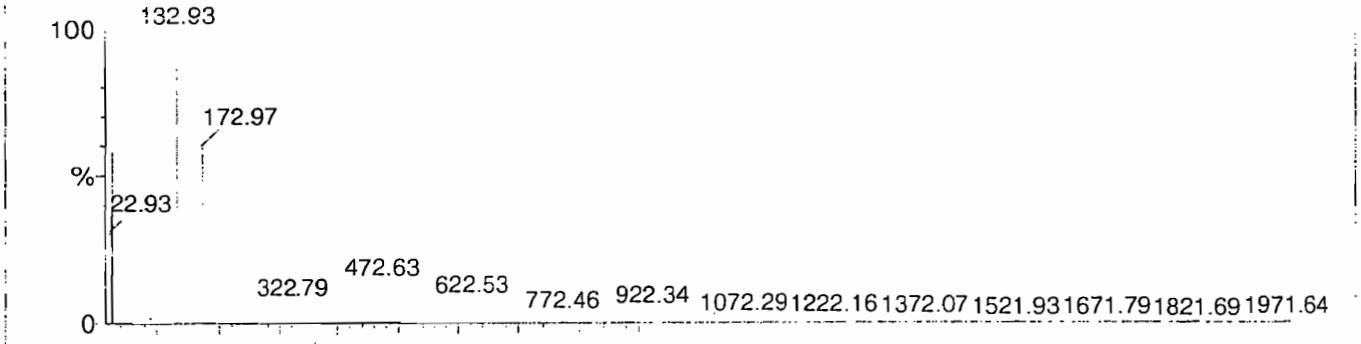
Calibration Report - MS1 Static

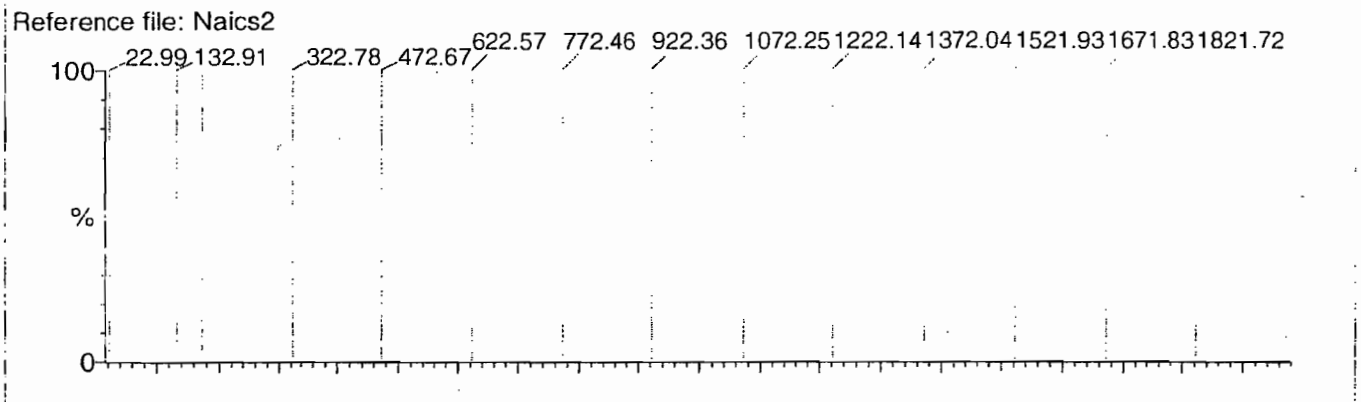
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

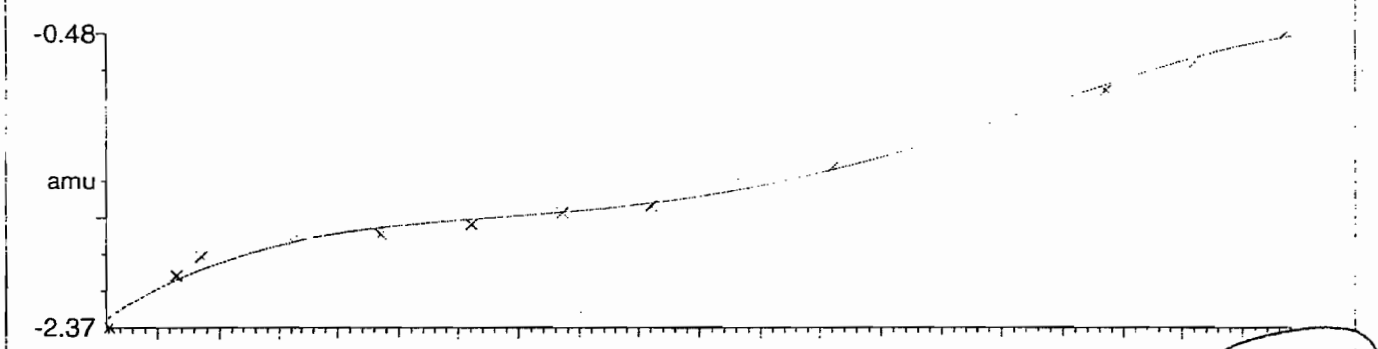
15 matches of 15 tested references



Reference file: Naics2



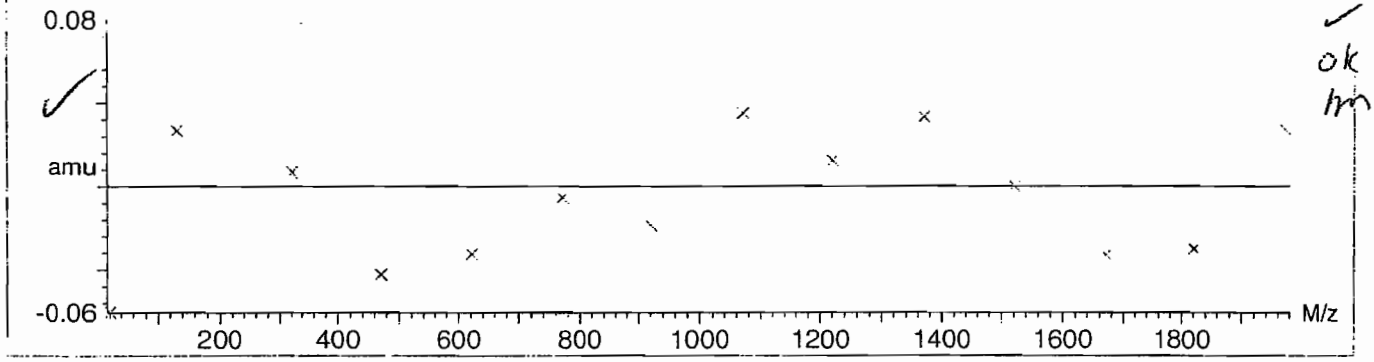
Mass difference (Raw - Ref mass)



Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm



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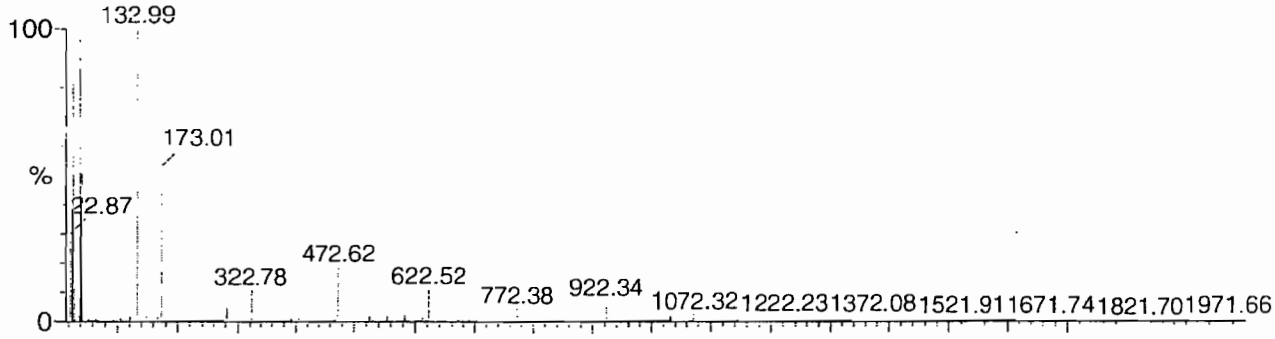
Calibration Report - MS1 Scanning

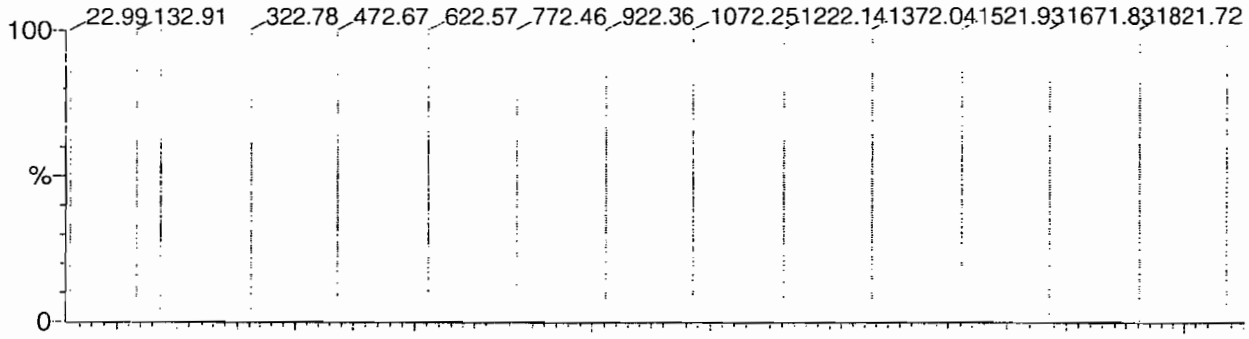
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

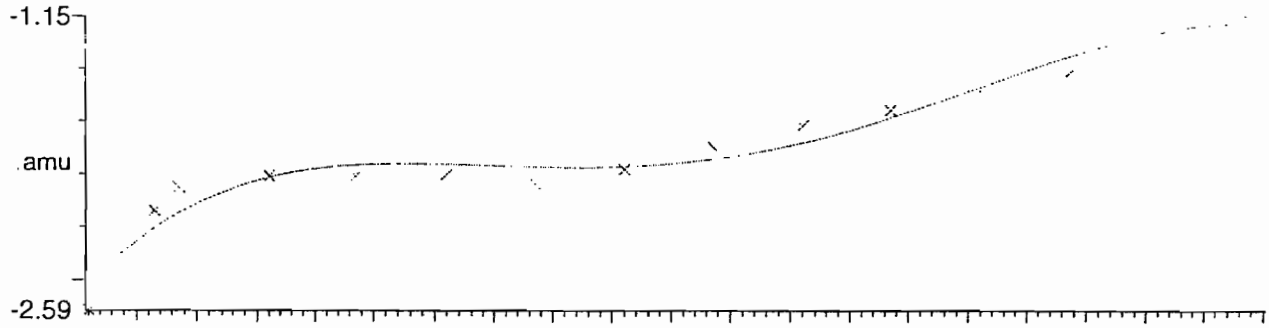
15 matches of 15 tested references



Reference file: Naics2



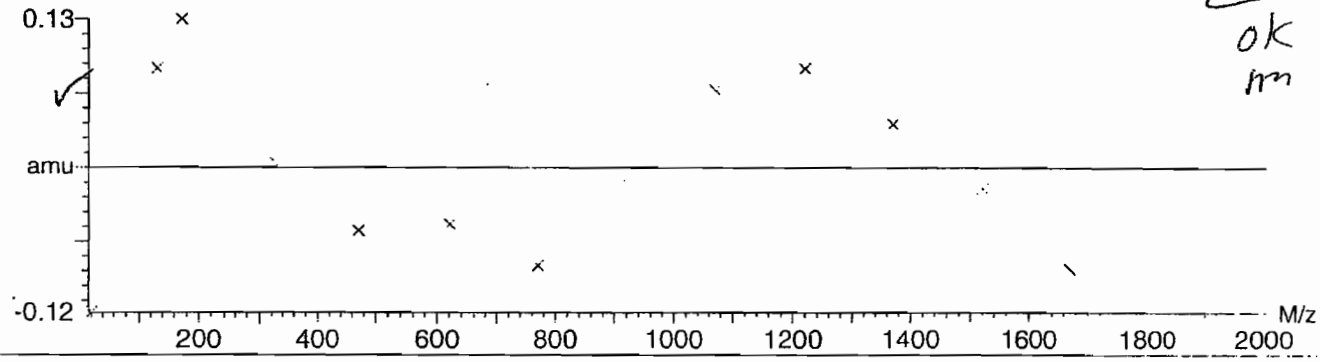
Mass difference (Raw - Ref mass)



Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m



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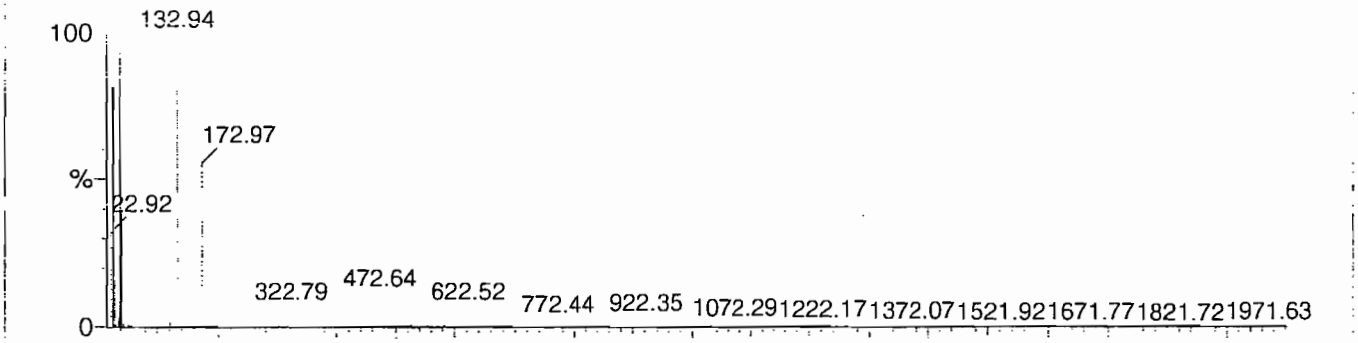
Calibration Report - MS1 Scan Speed Compensation

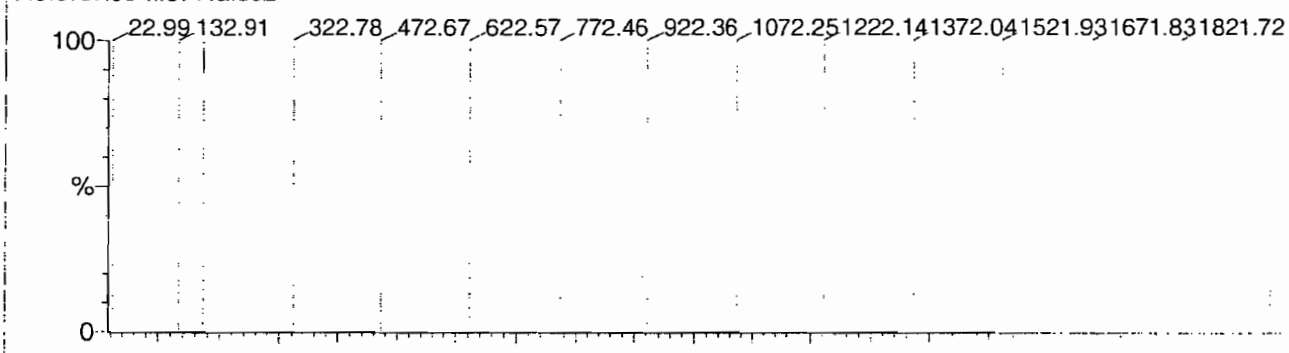
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

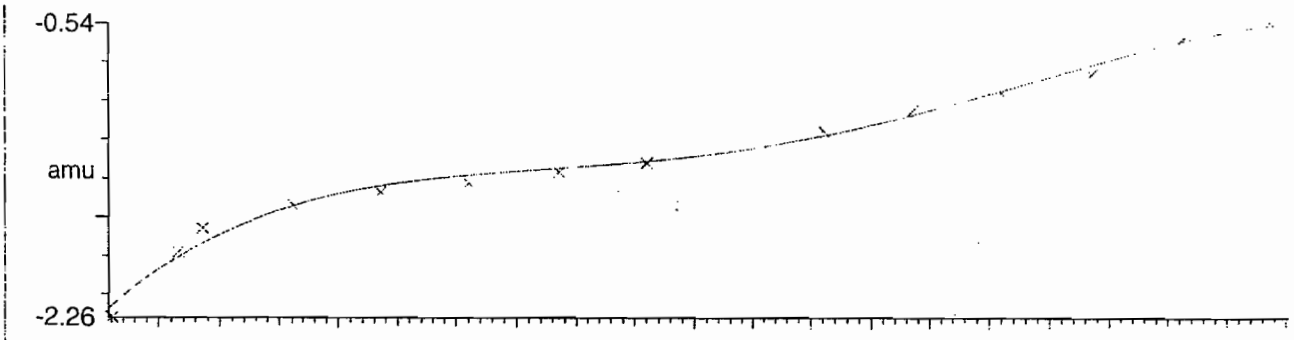
15 matches of 15 tested references



Reference file: Naics2

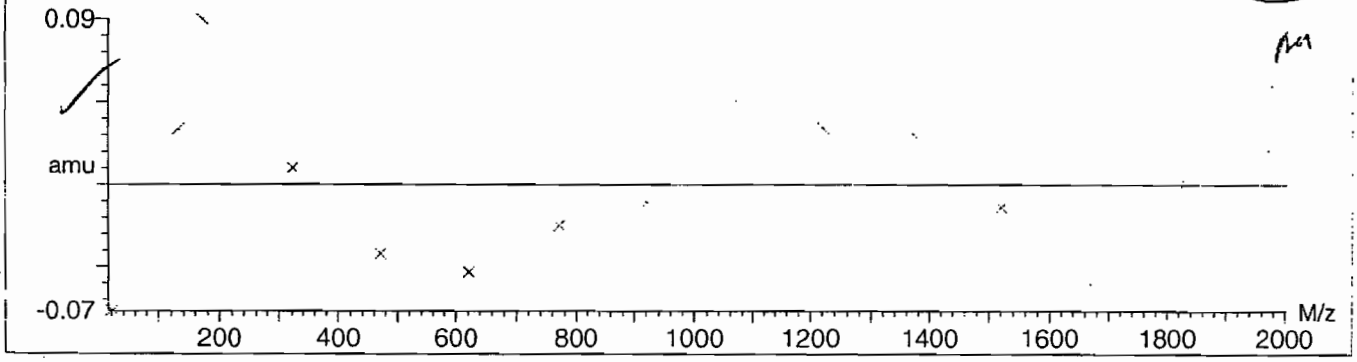


Mass difference (Raw - Ref mass)



Residuals

Mean residual = 3.486639e-9 ± 0.040487



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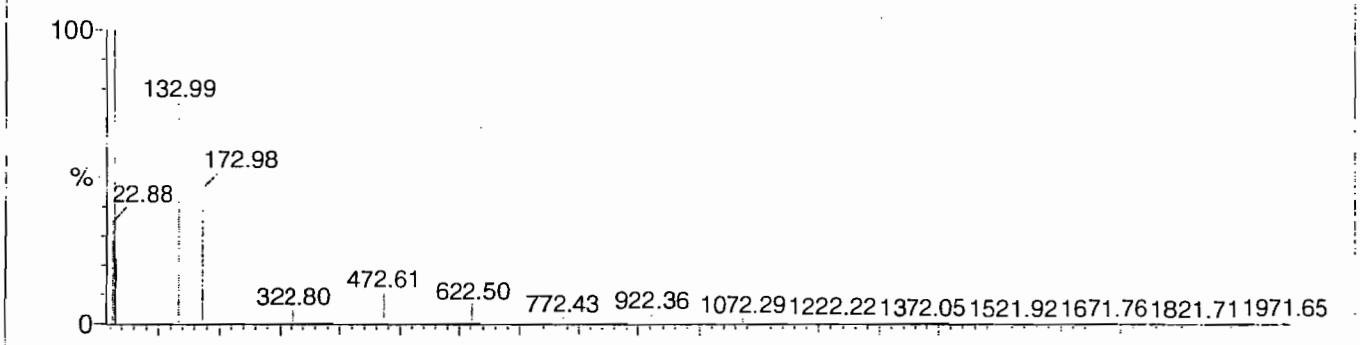
Calibration Report - MS2 Static

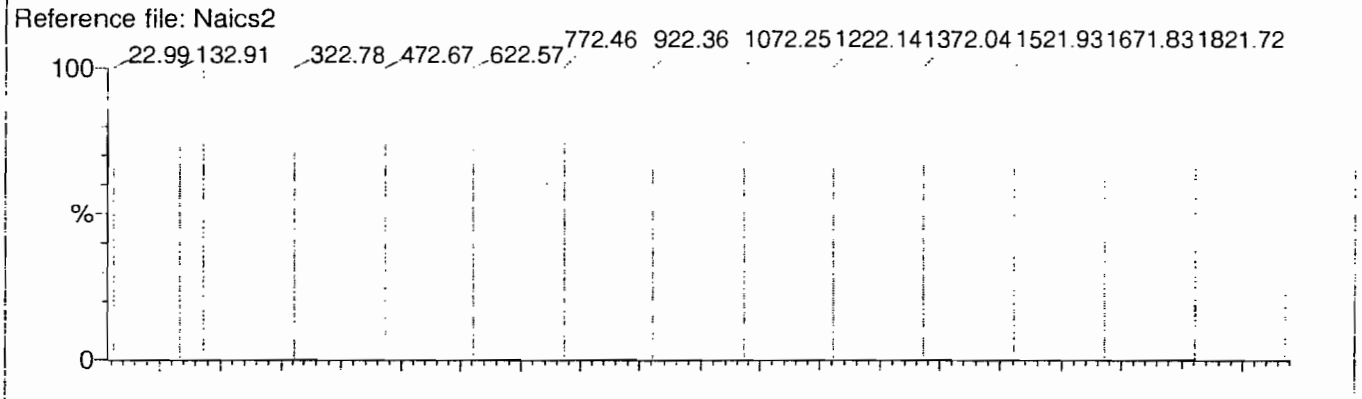
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

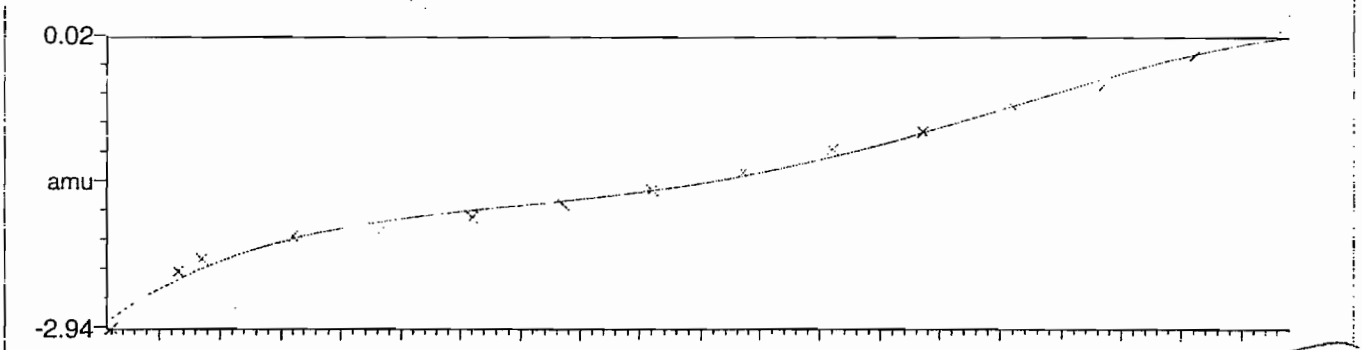
15 matches of 15 tested references



Reference file: Naics2

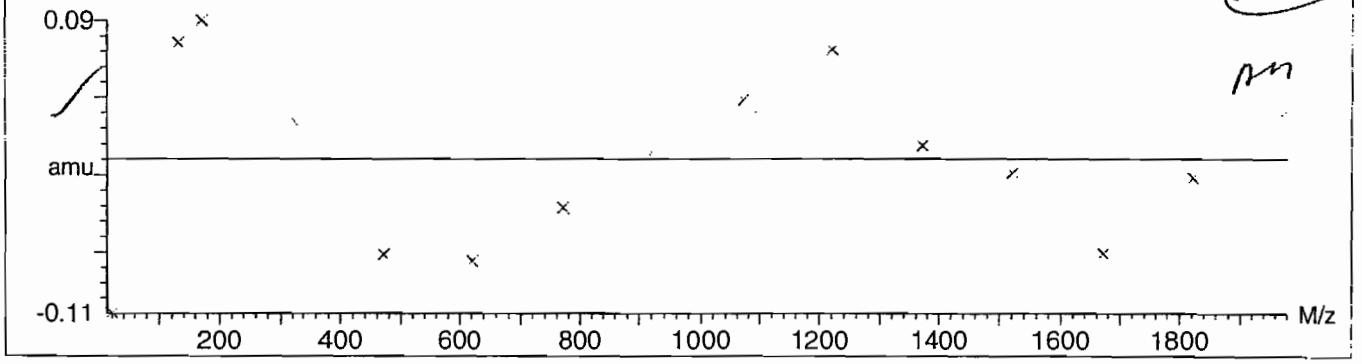


Mass difference (Raw - Ref mass)



Residuals

Mean residual = 2.048910e-9 ± 0.057803



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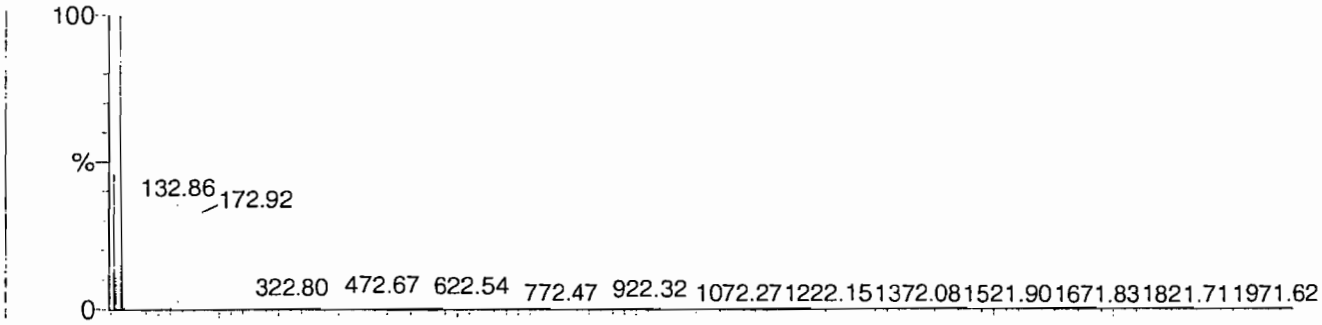
Calibration Report - MS2 Scanning

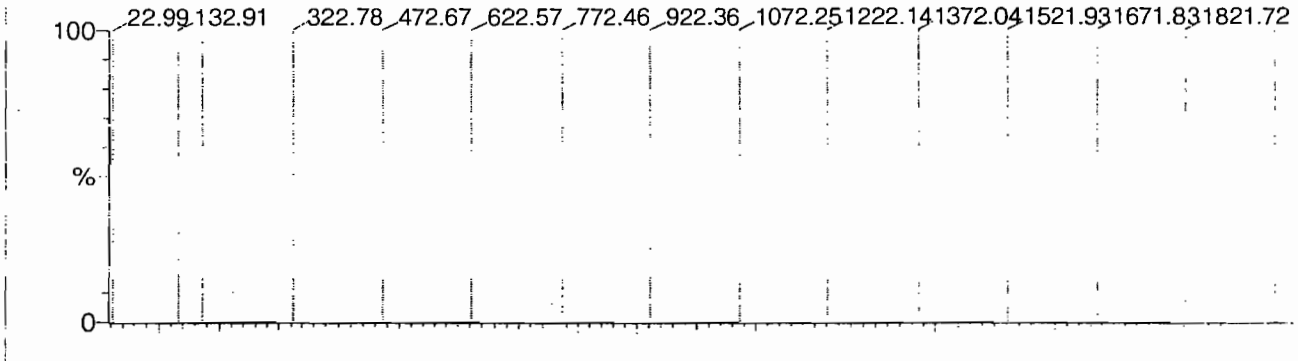
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

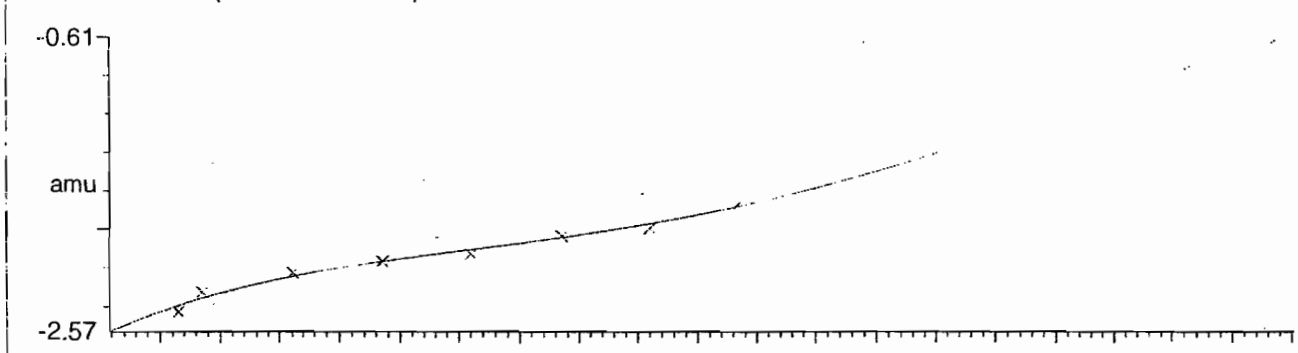
14 matches of 15 tested references



Reference file: Naics2

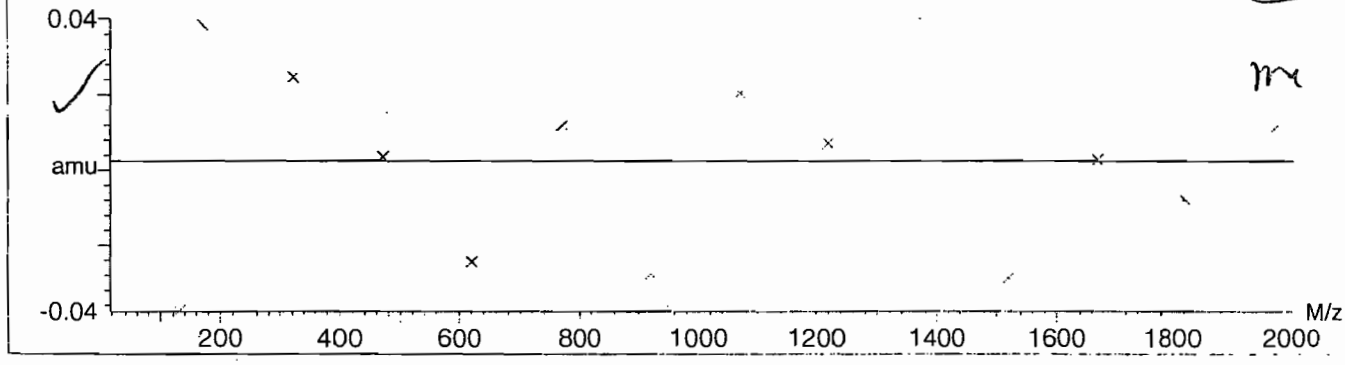


Mass difference (Raw - Ref mass)



Residuals

Mean residual = -2.623502e-9 ± 0.025622



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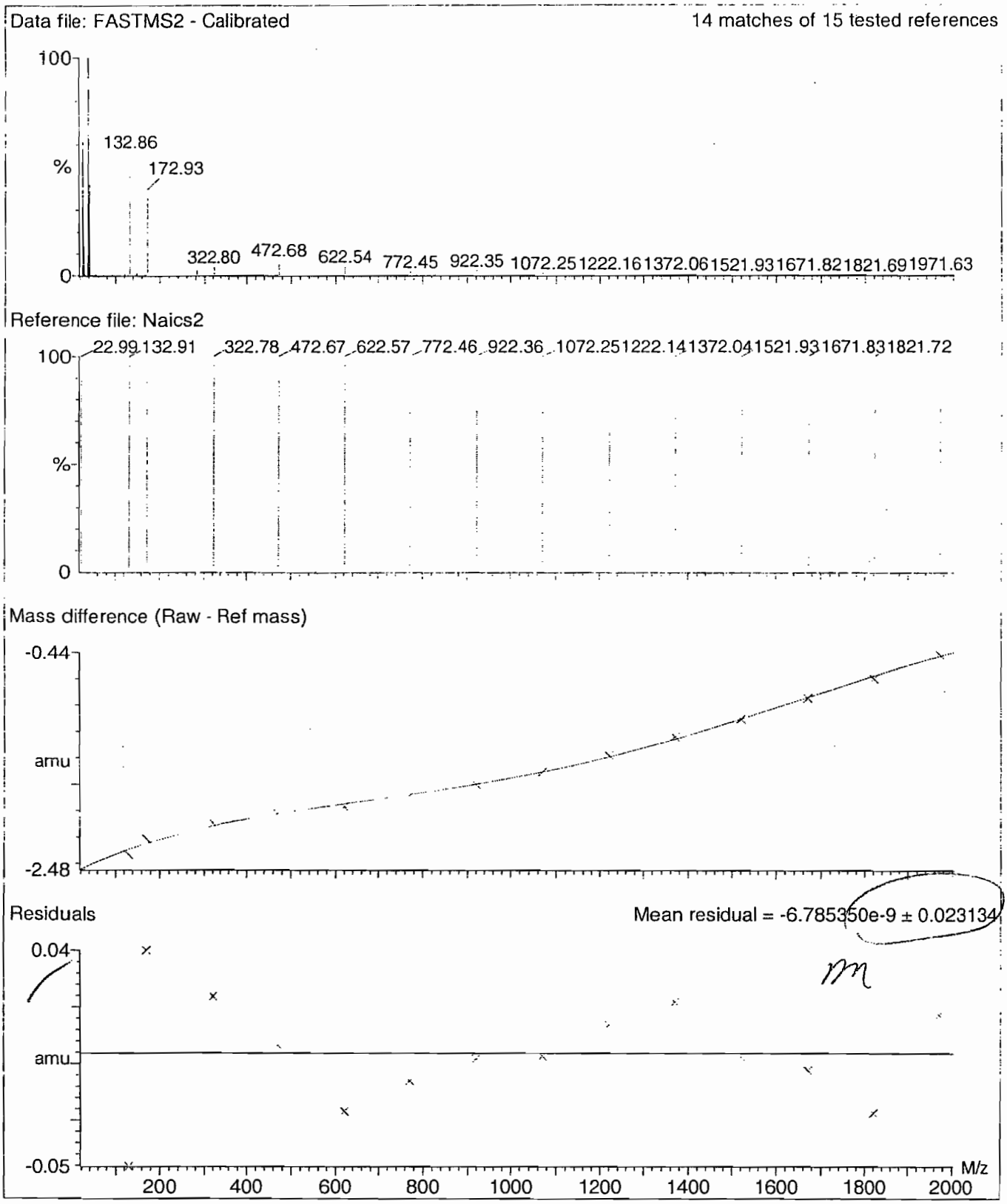
Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006



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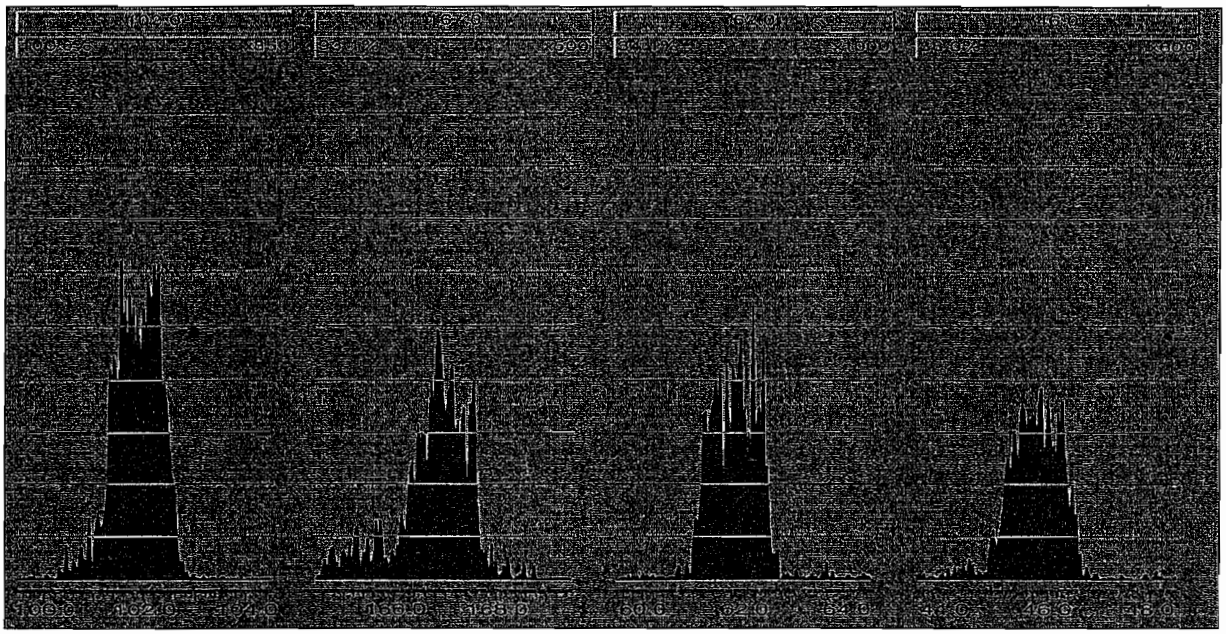
Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Thu Mar 04 09:08:29 2010



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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3511.79	12.136	20560.6	17.579
Upper Limit			4565.327	12.636	26728.78	18.079
Lower Limit			2458.253	11.636	14392.42	17.079
MB for batch 952677	05–mar–10 17:49	EXP0304055a	3853.03	12.099	22504.7	17.477
LCS for batch 952677	05–mar–10 18:18	EXP0304056a	4187.05	12.067	24004.6	17.487
RE15–10–7992	05–mar–10 20:46	EXP0304061a	3537.45	12.067	21254.7	17.466
RE15–10–7991	05–mar–10 21:15	EXP0304062a	3527.72	12.067	21893.9	17.465
RE15–10–7990	05–mar–10 21:45	EXP0304063a	3724.75	12.067	21544.6	17.487
RE15–10–7987	05–mar–10 23:43	EXP0304067a	3654.92	12.067	21762.6	17.487
RE15–10–7988	06–mar–10 00:13	EXP0304068a	3777.22	12.067	21744.1	17.465
RE15–10–7989	06–mar–10 00:42	EXP0304069a	3788.16	12.064	21855.2	17.476

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7992

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837001

Sample Amount 2

Moisture: 9.1

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304061a

Date Analyzed: 05-MAR-10 20:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

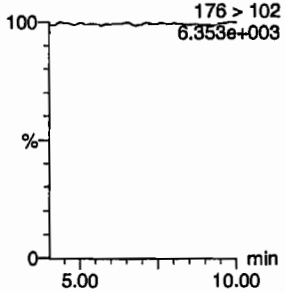
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

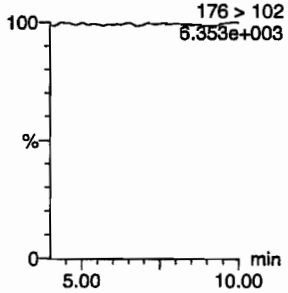
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304061a
Date: 05-Mar-2010
Time: 20:46:23
ID: 246837001 | LANL | 952679 | Soils | 2 |
Vial: 2:6,A

MATT 3/6/10

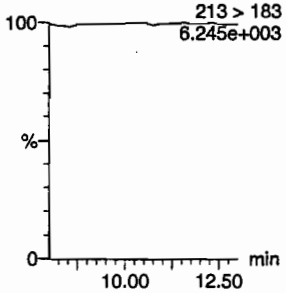
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.353e+003



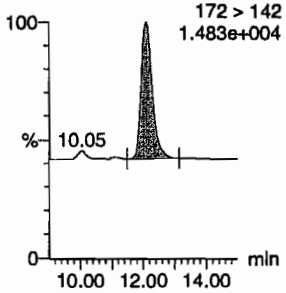
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.353e+003



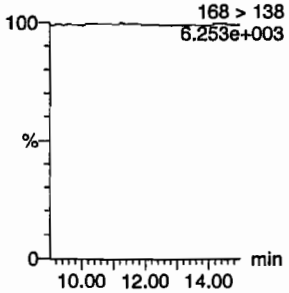
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.245e+003



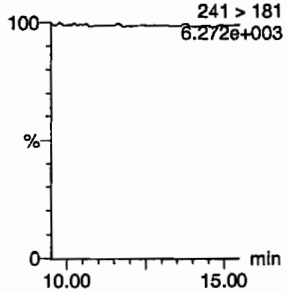
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.483e+004



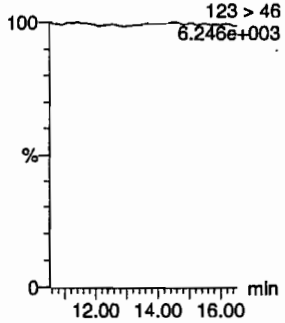
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.253e+003



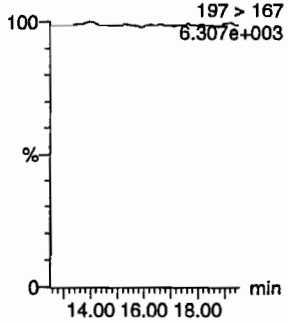
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.272e+003



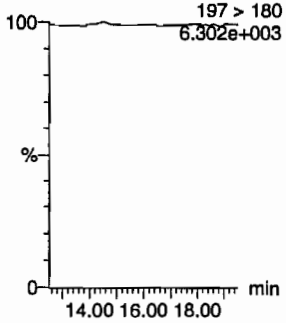
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.246e+003



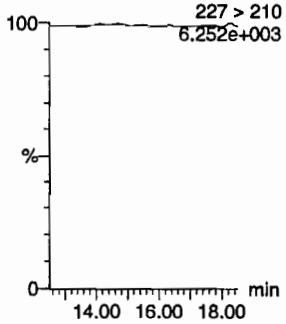
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.307e+003



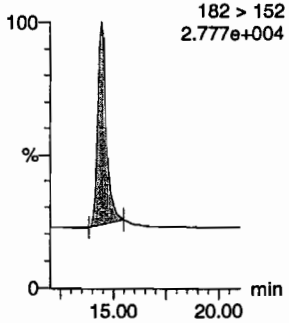
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.302e+003



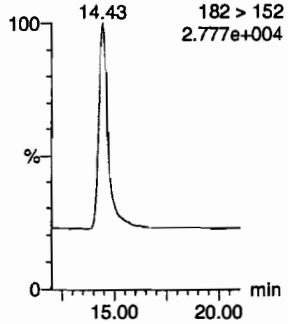
246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.252e+003



34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.777e+004



26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.777e+004



HMC 03/07/10

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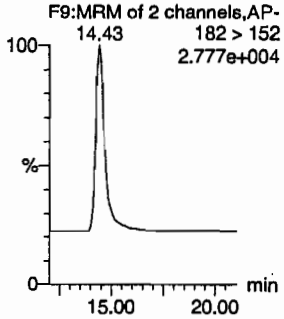
Quantify Sample Report

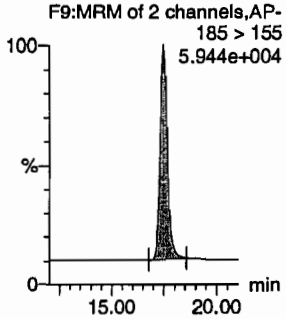
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

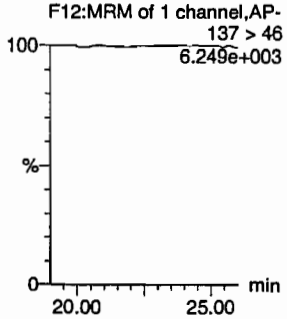
24-dinitrotoluene



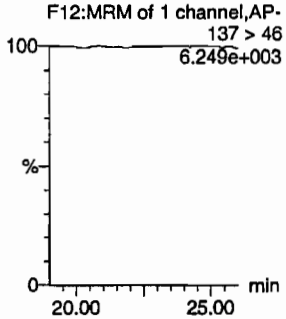
26-dinitrotoluene-d3



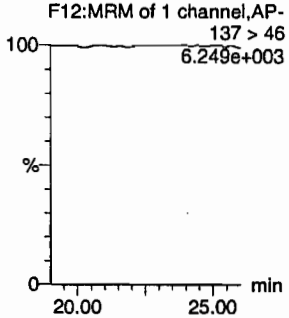
2-Nitrotoluene



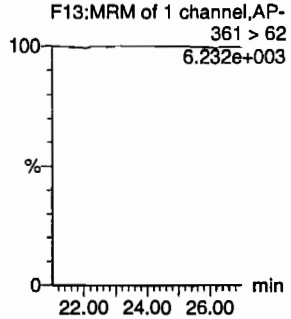
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246837001	HMX	176 > 102			3537.452									
246837001	RDX	176 > 102			3537.452									
246837001	135-Trinitrobenzene	213 > 183			3537.452									
246837001	13-Dinitrobenzene-d4	172 > 142	12.07	3537.452		3537.452	3537.452	bb			503.6539	100.7	0.7	222.1
246837001	13-Dinitrobenzene	168 > 138			3537.452									
246837001	Tetryl	241 > 181			3537.452									
246837001	Nitrobenzene	123 > 46			3537.452									
246837001	4-Amino-26-dinitrotoluene	197 > 167			21254.656									
246837001	2-Amino-46-dinitrotoluene	197 > 180			21254.656									
246837001	246-Trinitrotoluene	227 > 210			21254.656									
246837001	34-dinitrotoluene	182 > 152	14.43	10114.487	21254.656	10114.487	237.936	bb			246.1914	98.5	-1.5	620.7
246837001	26-dinitrotoluene	182 > 152			21254.656									
246837001	24-dinitrotoluene	182 > 152			21254.656									
246837001	26-dinitrotoluene-d3	185 > 155	17.47	21254.656		21254.656	21254.656	bb			516.8787	103.4	3.4	2757.7
246837001	2-Nitrotoluene	137 > 46			21254.656									
246837001	4-Nitrotoluene	137 > 46			21254.656									
246837001	3-Nitrotoluene	137 > 46			21254.656									
246837001	PETN	361 > 62			21254.656									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7992

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837001

Sample Amount 2

Moisture: 9.1

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250052.wiff

Date Analyzed: 25-FEB-10 21:51

Units: ug/kg

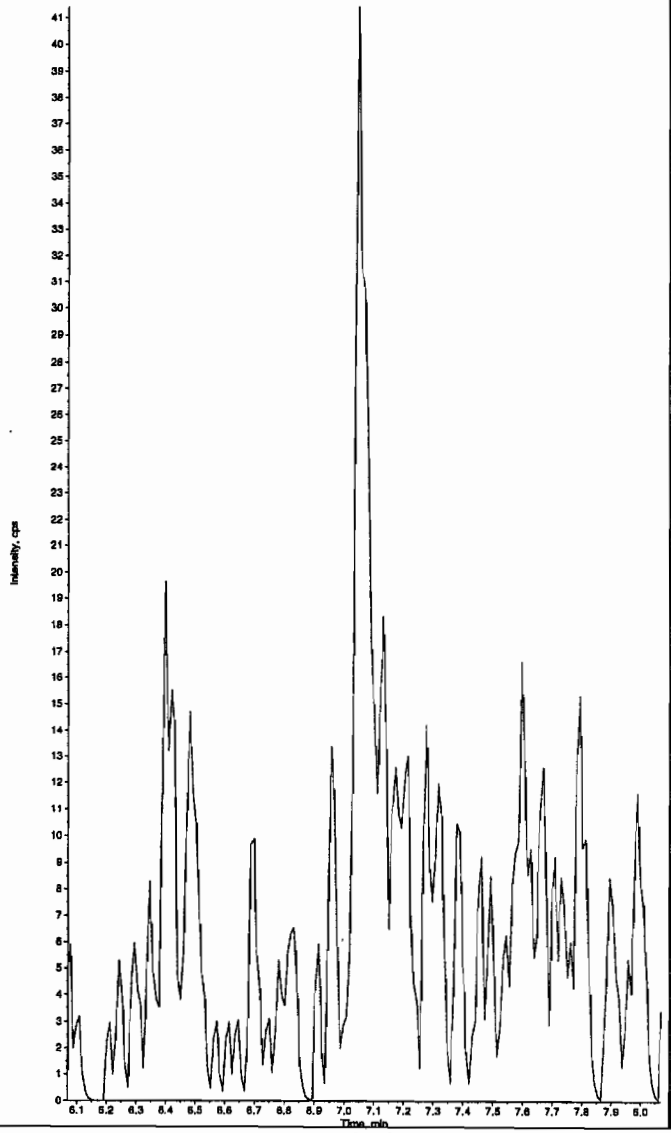
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

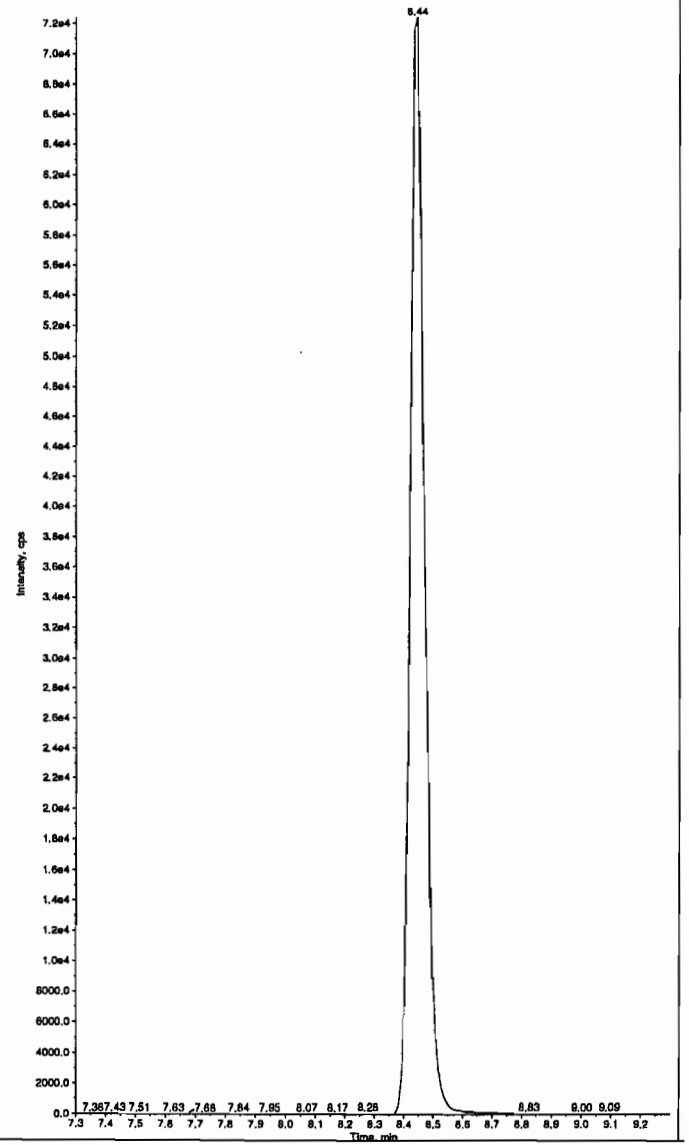
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcr 2/26/10

Sample Name: "246837001" Sample ID: "952679|2|LER" File: "EXS02250052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:51:59 PM
Modified: No



Sample Name: "246837001" Sample ID: "952679|2|LER" File: "EXS02250052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:51:59 PM
Modified: No



HMW 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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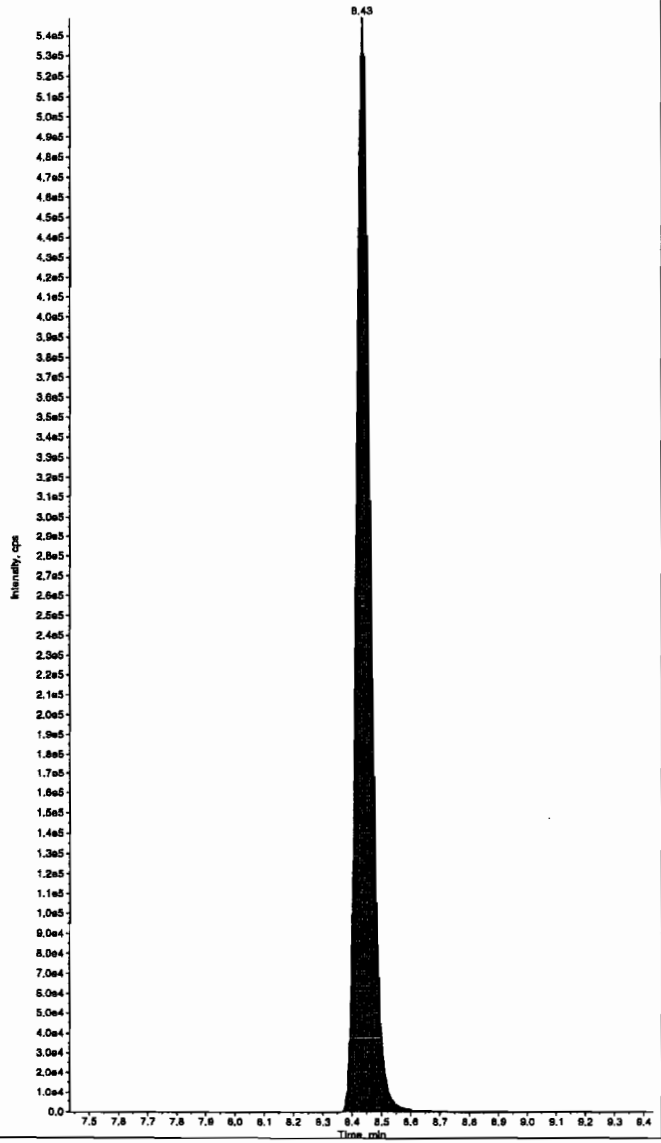
Sample Name: "246837001" Sample ID: "952679|2|LER" File: "EXS02250052.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 291. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:51:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

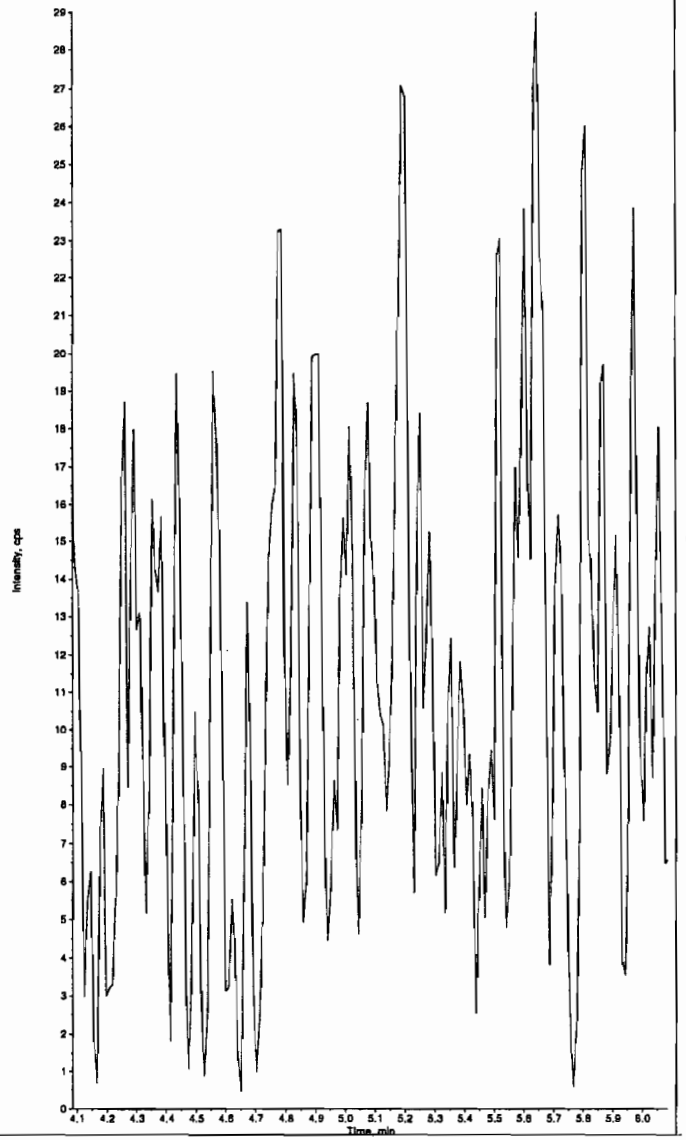
Int. Type: Valley
Retention Time: 8.43 min
Area: 1.97e+006 counts
Height: 549015.686 cps
Start Time: 8.34 min
End Time: 8.81 min



Sample Name: "246837001" Sample ID: "952679|2|LER" File: "EXS02250052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:51:59 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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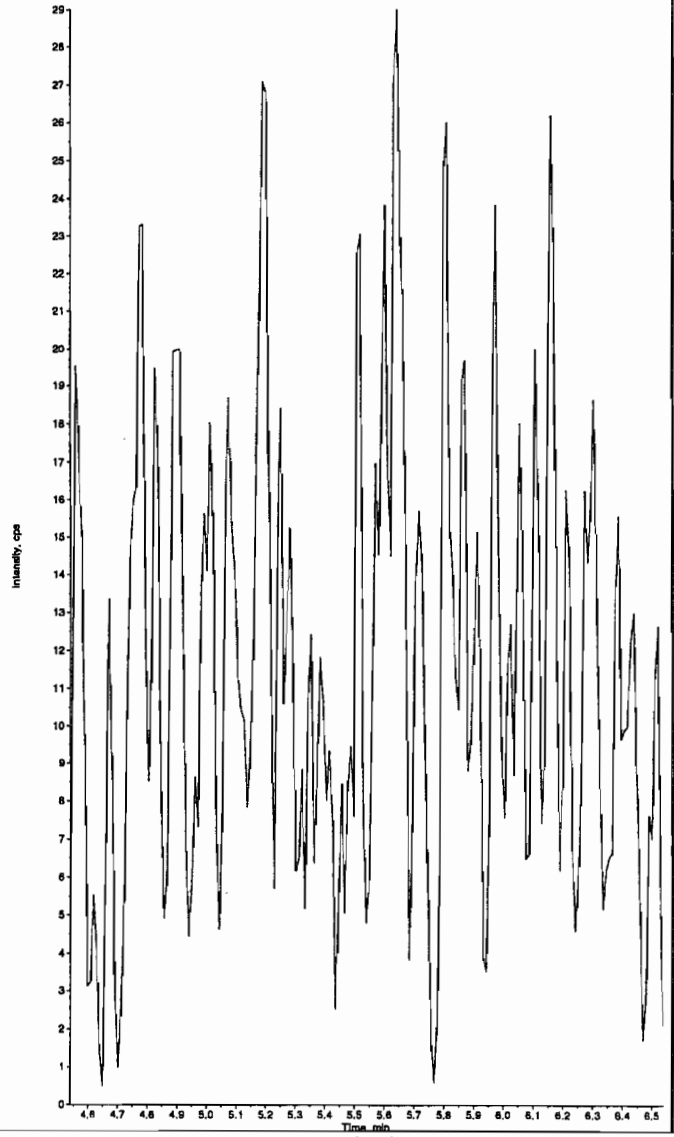
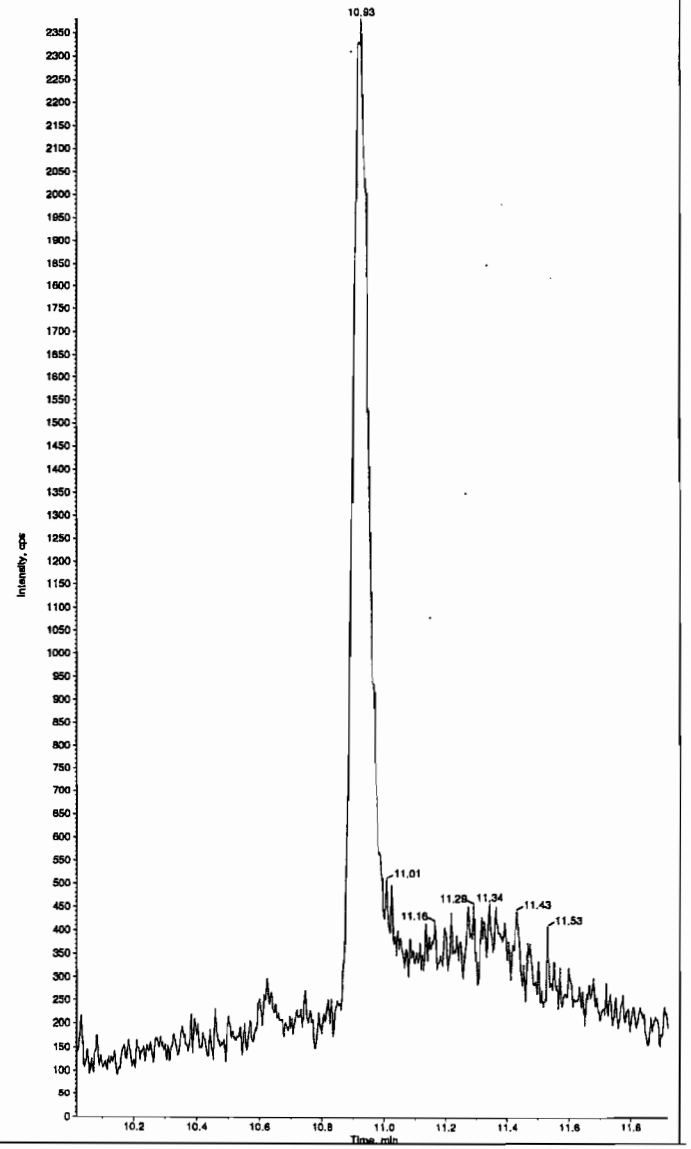
Sample Name: "246837001" Sample ID: "952679|2|LER" File: "EXS02250052.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:51:59 PM

Modified: No



Sample Name: "246837001" Sample ID: "952679|2|LER" File: "EXS02250052.wiff"
Peak Name: "tris(o-crasyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:51:59 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7991

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837002

Sample Amount 2

Moisture: 29.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304062a

Date Analyzed: 05-MAR-10 21:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

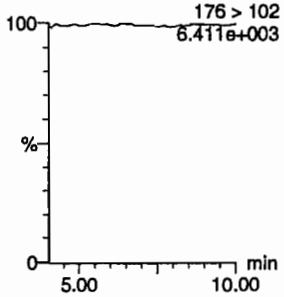
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

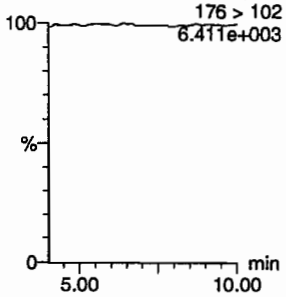
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304062a
Date: 05-Mar-2010
Time: 21:15:54
ID: 246837002 | LANL | 952679 | Solids | 2 |
Vial: 2:6,B

MAP 3/6/10

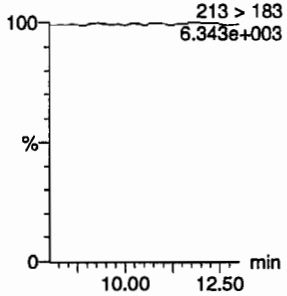
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.411e+003



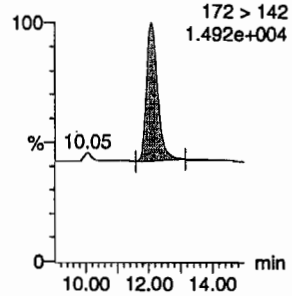
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.411e+003



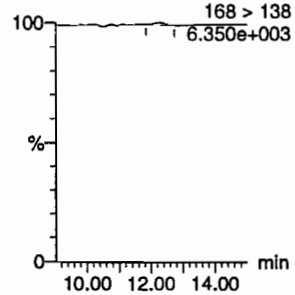
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.343e+003



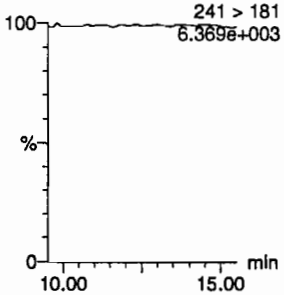
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.492e+004



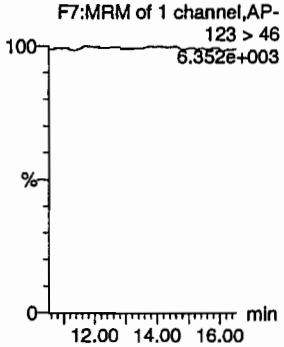
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.350e+003



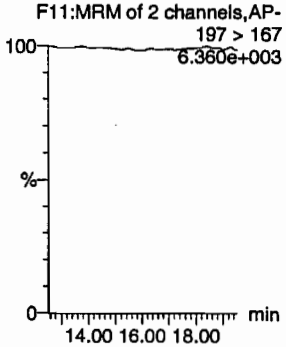
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.369e+003



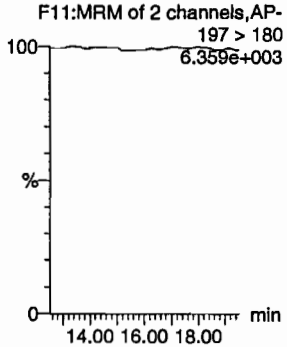
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.352e+003



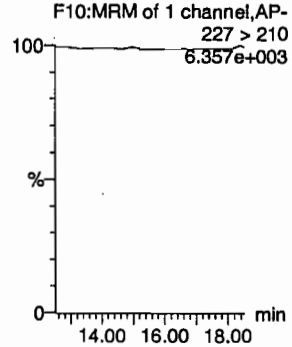
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.360e+003



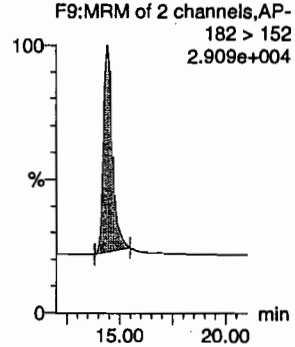
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.359e+003



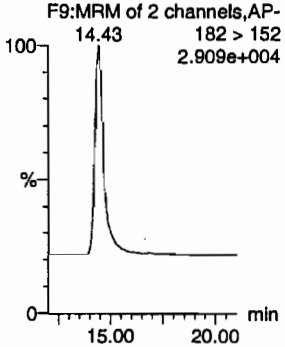
246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.357e+003



34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.909e+004



26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.909e+004



Hme 03/07/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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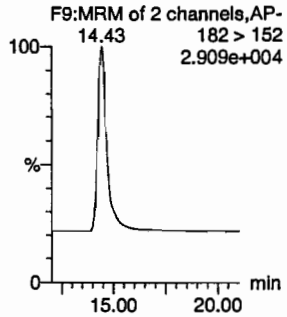
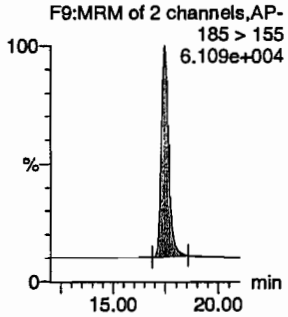
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

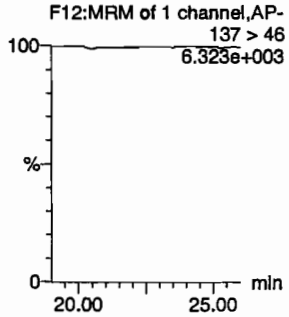
24-dinitrotoluene



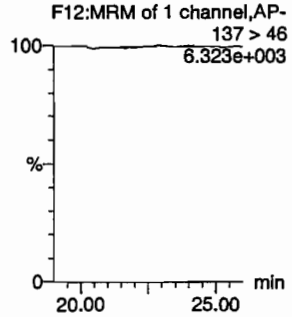
26-dinitrotoluene-d3



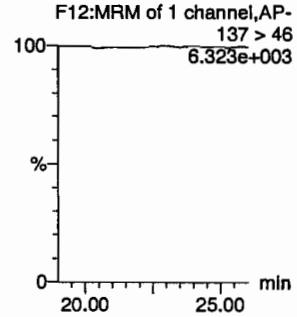
2-Nitrotoluene



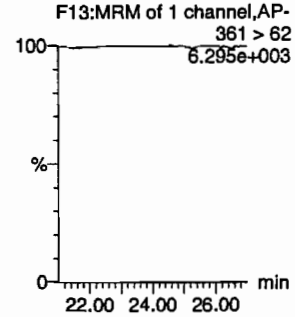
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	Ng/ml	%Rec	%Dev	S/N
246837002	HMX	176 > 102			3527.717									
246837002	RDX	176 > 102			3527.717									
246837002	135-Trinitrobenzene	213 > 183			3527.717									
246837002	13-Dinitrobenzene-d4	172 > 142	12.07	3527.717		3527.717	3527.717	bb			502.2678	100.5	0.5	442.8
246837002	13-Dinitrobenzene	168 > 138			3527.717			MM-	06-Mar-10	12:06:50				
246837002	Tetryl	241 > 181			3527.717									
246837002	Nitrobenzene	123 > 46			3527.717									
246837002	4-Amino-26-dinitrotoluene	197 > 167			21893.871									
246837002	2-Amino-46-dinitrotoluene	197 > 180			21893.871									
246837002	246-Trinitrotoluene	227 > 210			21893.871									
246837002	34-dinitrotoluene	182 > 152	14.43	10712.416	21893.871	10712.416	244.644	bb			253.1325	101.3	1.3	378.4
246837002	26-dinitrotoluene	182 > 152			21893.871									
246837002	24-dinitrotoluene	182 > 152			21893.871									
246837002	26-dinitrotoluene-d3	185 > 155	17.47	21893.871		21893.871	21893.871	bb			532.4234	106.5	6.5	732.2
246837002	2-Nitrotoluene	137 > 46			21893.871									
246837002	4-Nitrotoluene	137 > 46			21893.871									
246837002	3-Nitrotoluene	137 > 46			21893.871									
246837002	PETN	361 > 62			21893.871									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7991

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837002

Sample Amount 2

Moisture: 29.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250053.wiff

Date Analyzed: 25-FEB-10 22:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

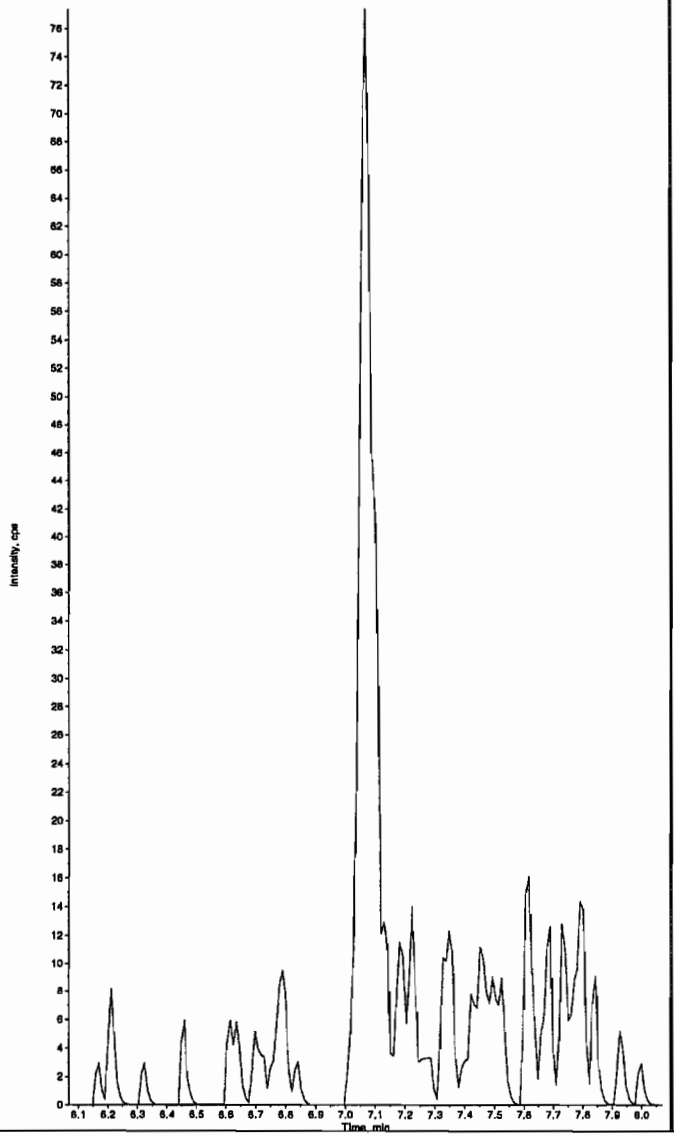
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcr 2/26/10

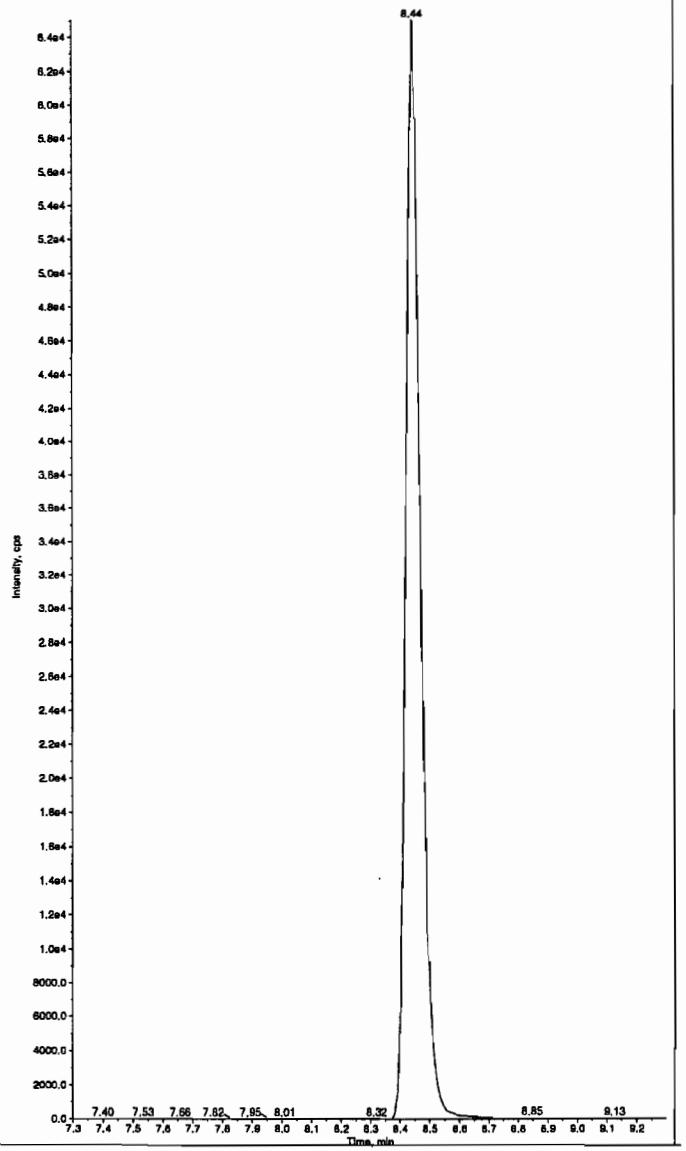
Sample Name: "246837002" Sample ID: "952679|2|LER" File: "EXS02250053.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:07:41 PM

Modified: No



Sample Name: "246837002" Sample ID: "952679|2|LER" File: "EXS02250053.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:07:41 PM

Modified: No



HMM 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

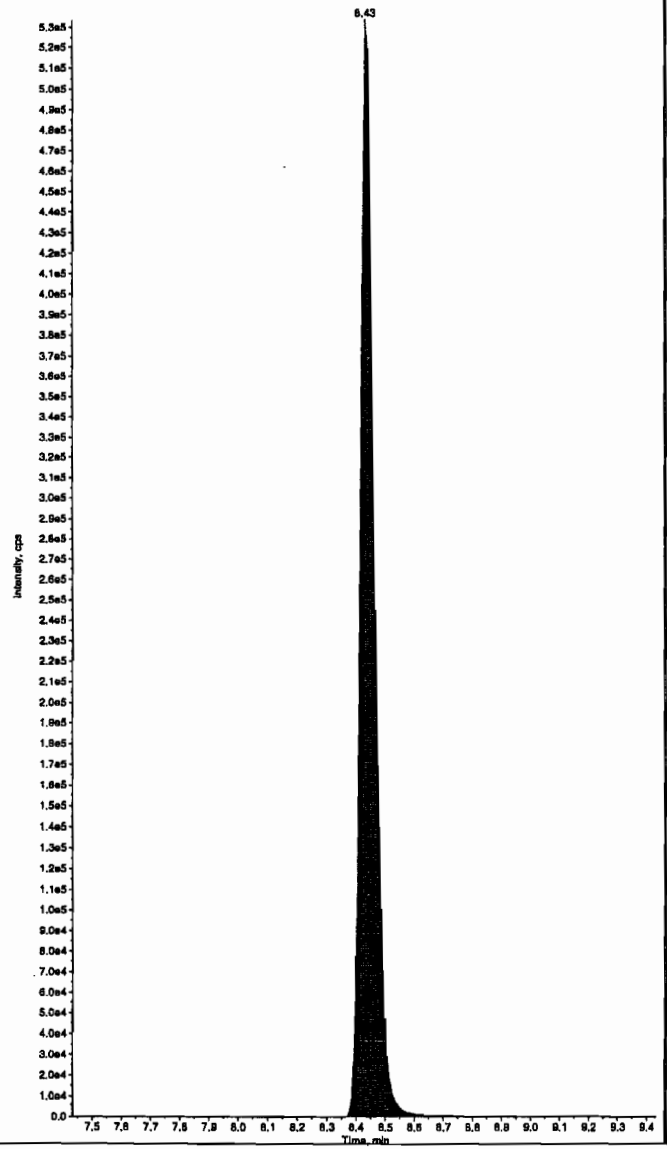
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "246837002" Sample ID: "952679|2|LER" File: "EXS02250053.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 273. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:07:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

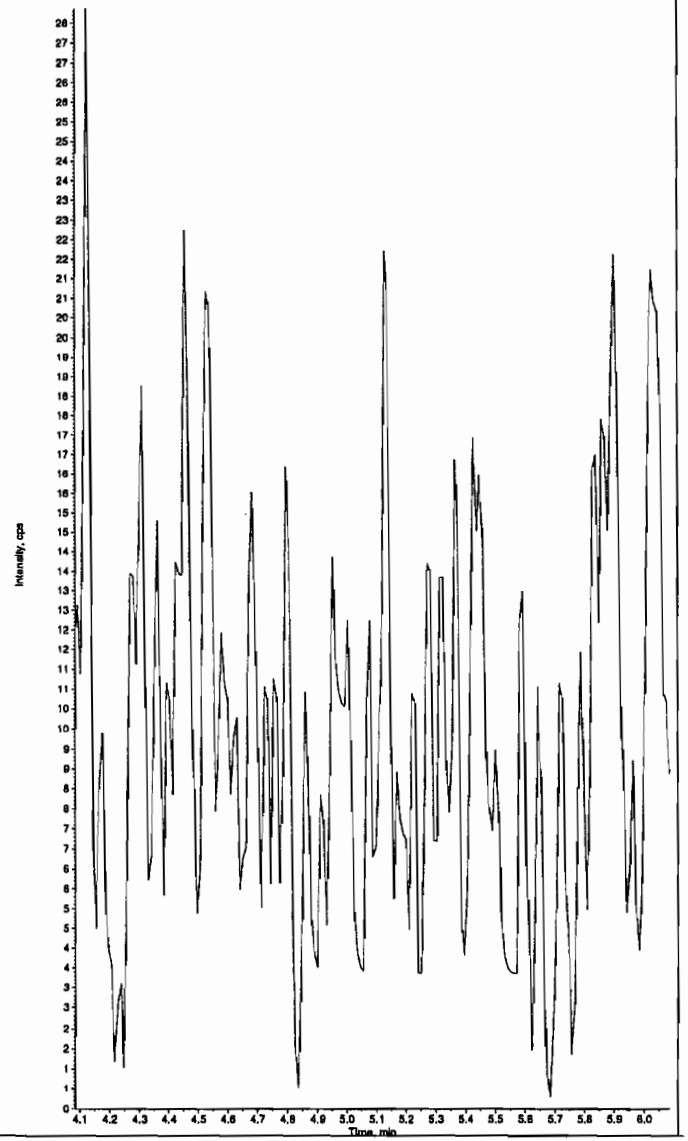
Int. Type: Valley
Retention Time: 8.43 min
Area: 1.85e+006 counts
Height: 533354.736 cps
Start Time: 8.28 min
End Time: 8.81 min



Sample Name: "246837002" Sample ID: "952679|2|LER" File: "EXS02250053.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:07:41 PM

Modified: No

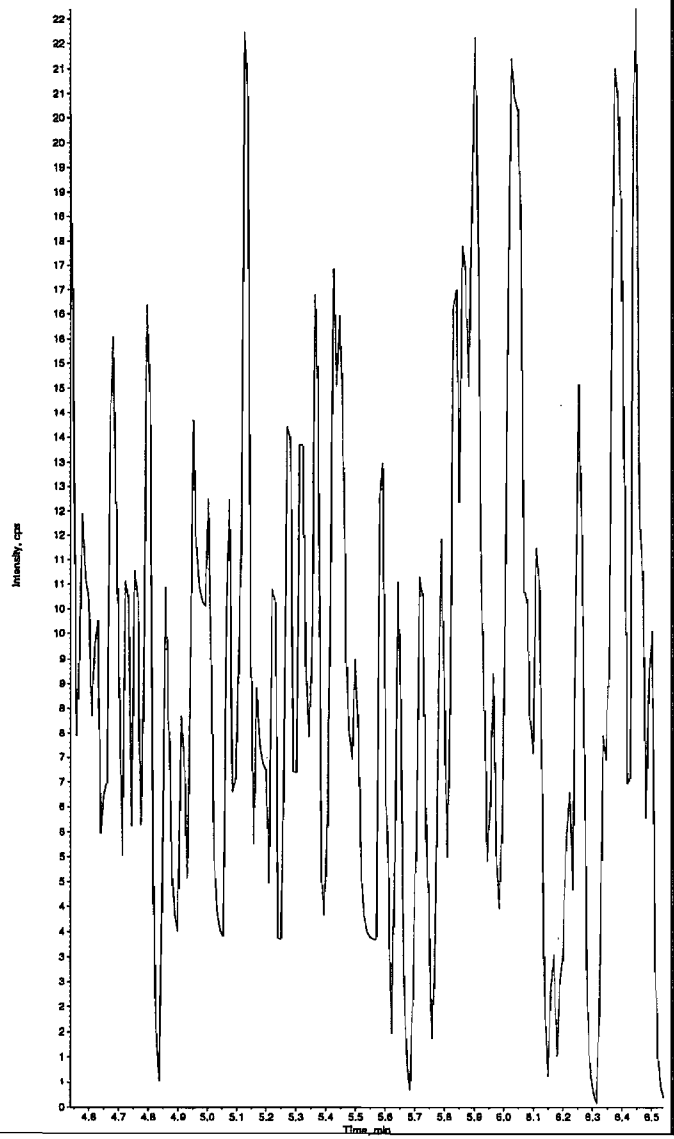


*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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

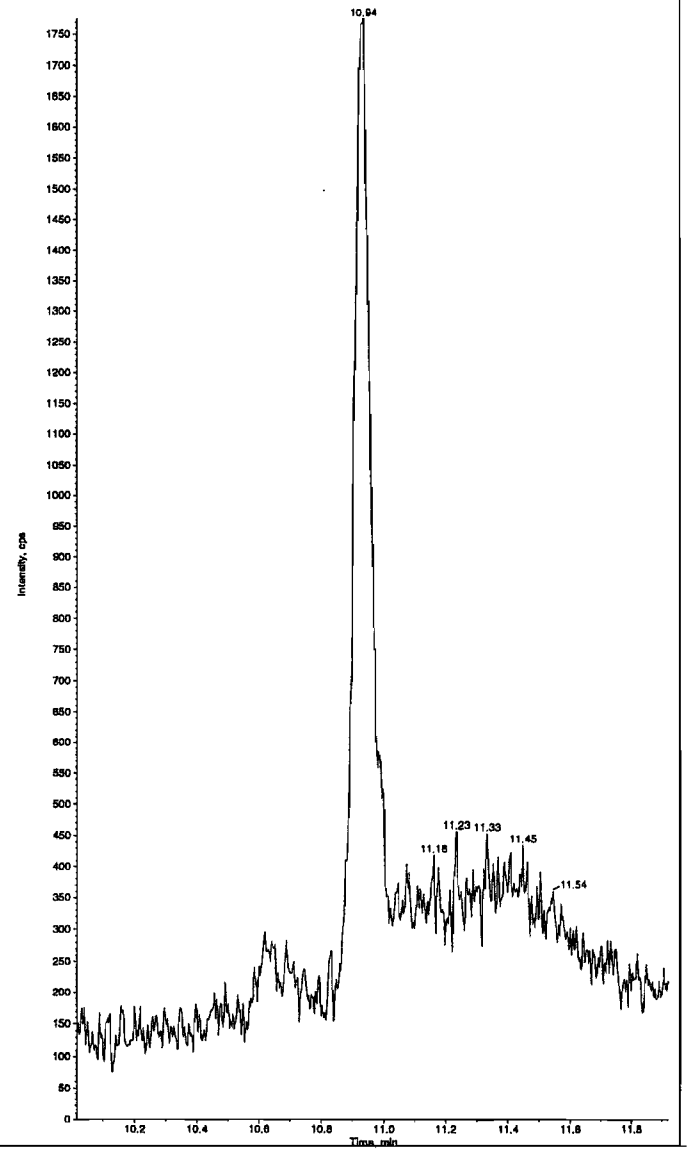
Sample Name: "246837002" Sample ID: "952679|2|LER" File: "EXS02250053.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:07:41 PM

Modified: No



Sample Name: "246837002" Sample ID: "952679|2|LER" File: "EXS02250053.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:07:41 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7990

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837003

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304063a

Date Analyzed: 05-MAR-10 21:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

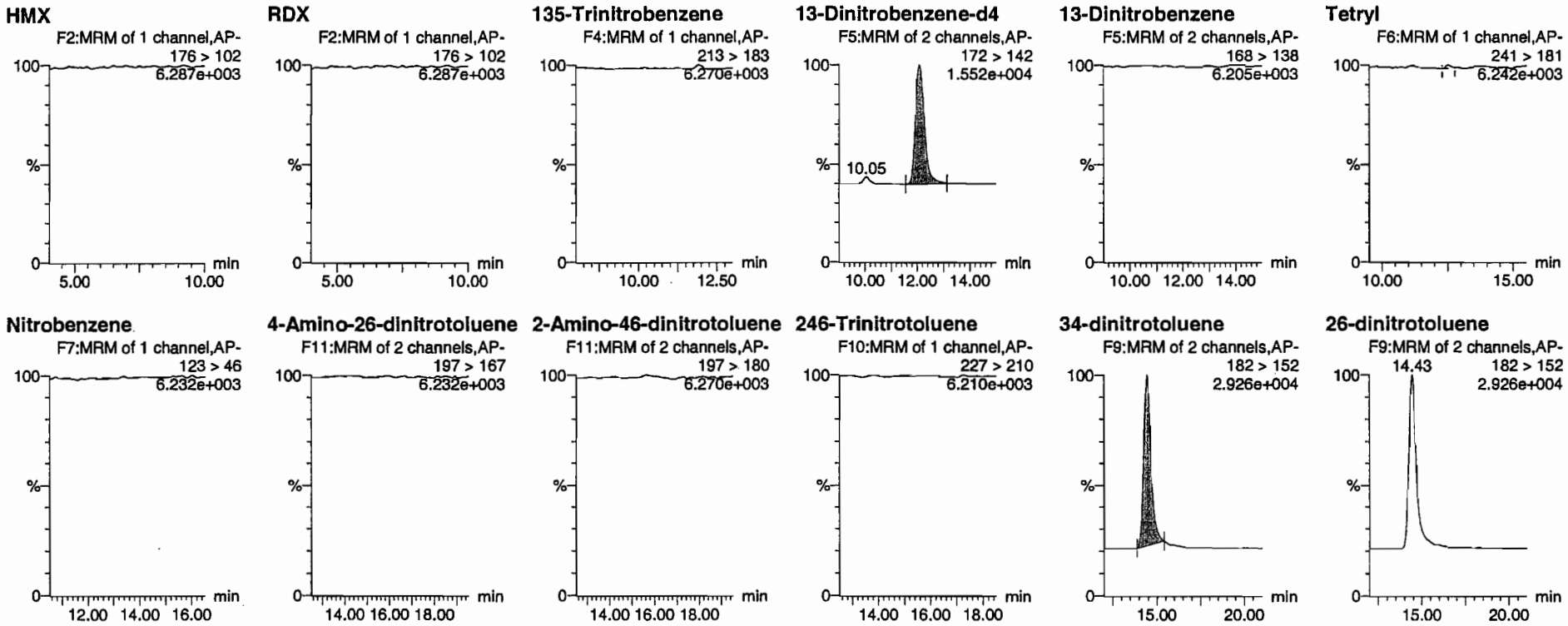
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304063a
Date: 05-Mar-2010
Time: 21:45:24
ID: 246837003 | LANL | 952679 | Solids | 2 |
Vial: 2:6,C

3/6/10



HMM 23/07/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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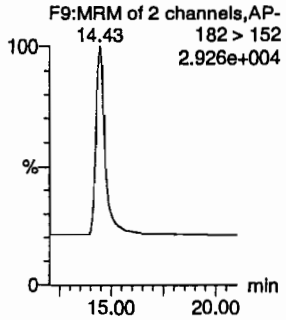
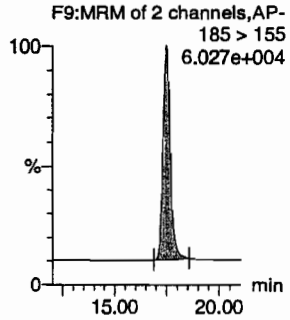
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

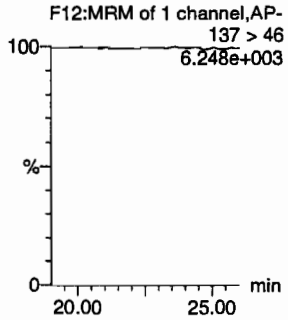
24-dinitrotoluene



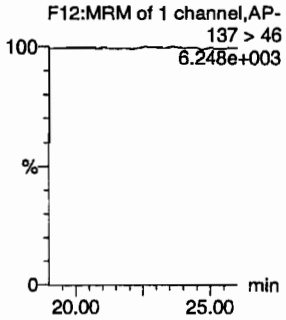
26-dinitrotoluene-d3



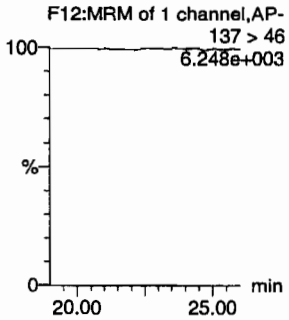
2-Nitrotoluene



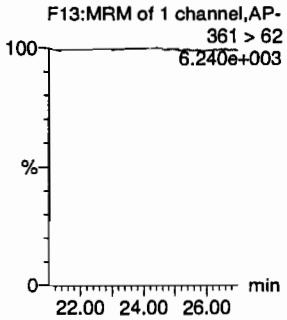
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246837003	HMX	176 > 102			3724.750									
246837003	RDX	176 > 102			3724.750									
246837003	135-Trinitrobenzene	213 > 183			3724.750									
246837003	13-Dinitrobenzene-d4	172 > 142	12.07	3724.750		3724.750	3724.750	bb			530.3209	106.1	6.1	68.8
246837003	13-Dinitrobenzene	168 > 138			3724.750									
246837003	Tetryl	241 > 181			3724.750			MM-	06-Mar-10	12:07:09				
246837003	Nitrobenzene	123 > 46			3724.750									
246837003	4-Amino-26-dinitrotoluene	197 > 167			21544.633									
246837003	2-Amino-46-dinitrotoluene	197 > 180			21544.633									
246837003	246-Trinitrotoluene	227 > 210			21544.633									
246837003	34-dinitrotoluene	182 > 152	14.43	10707.430	21544.633	10707.430	248.494	bb			257.1161	102.8	2.8	882.2
246837003	26-dinitrotoluene	182 > 152			21544.633									
246837003	24-dinitrotoluene	182 > 152			21544.633									
246837003	26-dinitrotoluene-d3	185 > 155	17.49	21544.633		21544.633	21544.633	bb			523.9305	104.8	4.8	2198.7
246837003	2-Nitrotoluene	137 > 46			21544.633									
246837003	4-Nitrotoluene	137 > 46			21544.633									
246837003	3-Nitrotoluene	137 > 46			21544.633									
246837003	PETN	361 > 62			21544.633									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7990

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837003

Sample Amount 2

Moisture: 8.0

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250054.wiff

Date Analyzed: 25-FEB-10 22:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

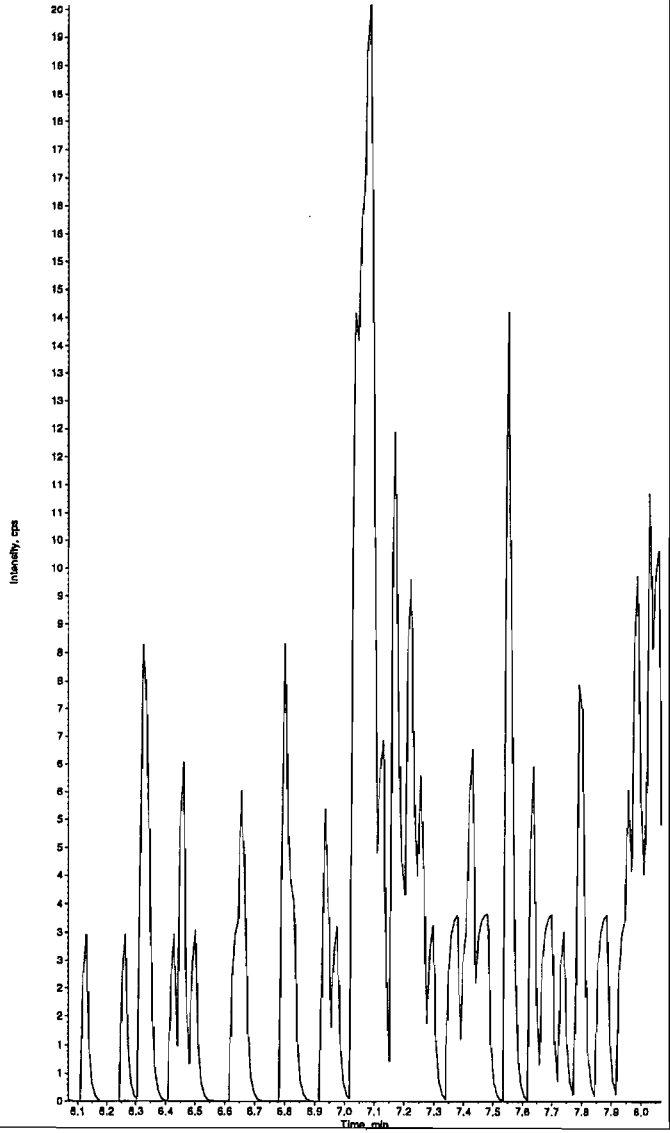
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sam 2/26/10

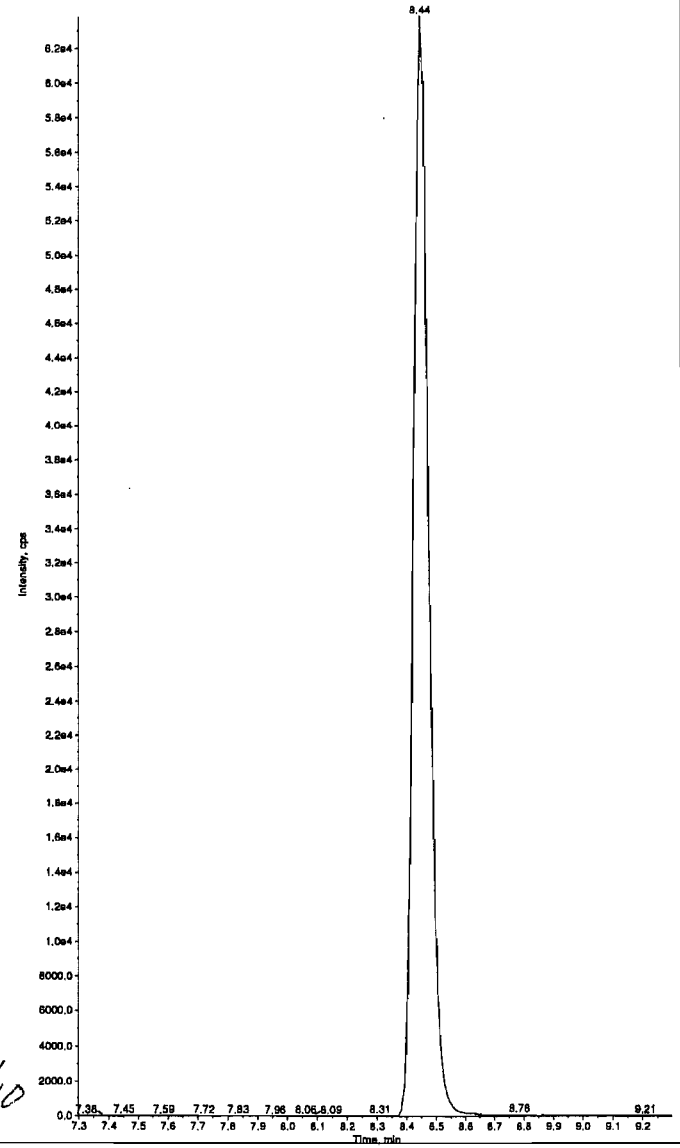
Sample Name: "246837003" Sample ID: "952679|2|LER" File: "EXS02250054.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:23:22 PM

Modified: No



Sample Name: "246837003" Sample ID: "952679|2|LER" File: "EXS02250054.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:23:22 PM

Modified: No



HMM 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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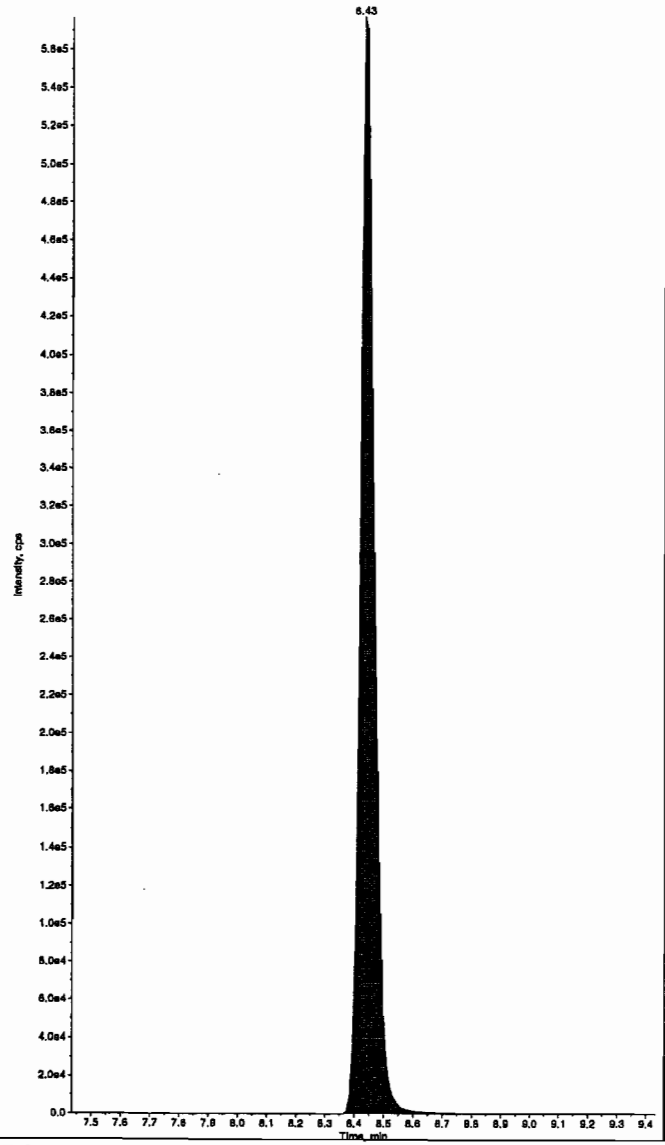
Sample Name: "246837003" Sample ID: "952679|2|LER" File: "EXS02250054.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 297. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:23:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

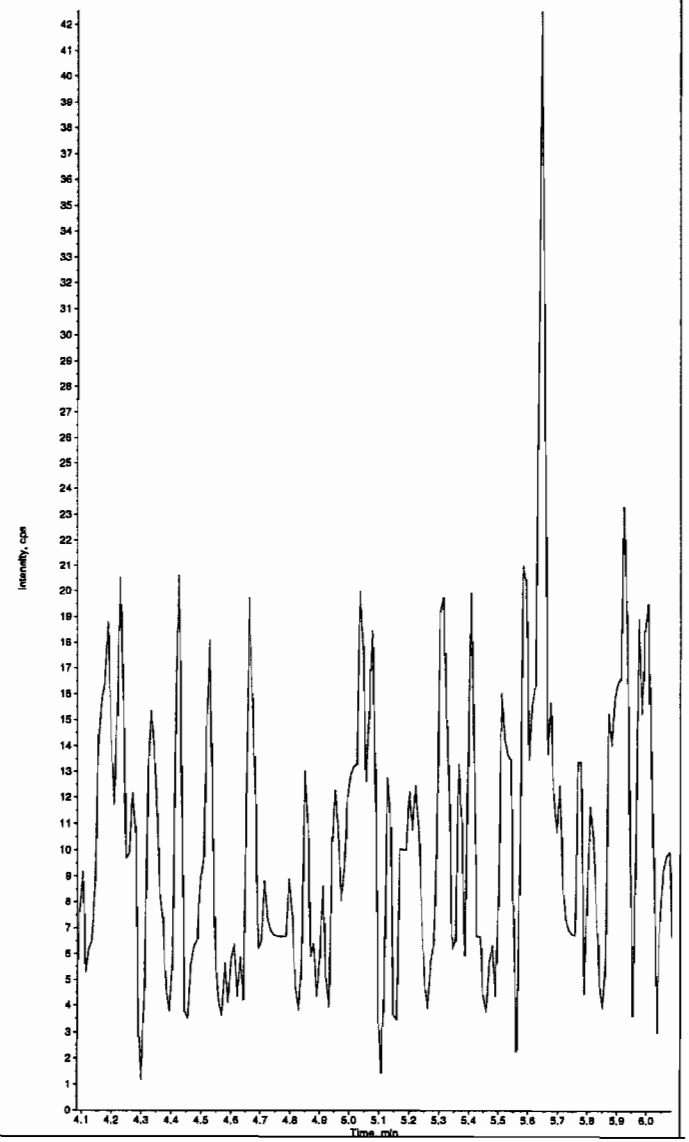
Int. Type: Valley
Retention Time: 8.43 min
Area: 2.01e+006 counts
Height: 576835.510 cps
Start Time: 8.32 min
End Time: 8.82 min



Sample Name: "246837003" Sample ID: "952679|2|LER" File: "EXS02250054.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:23:22 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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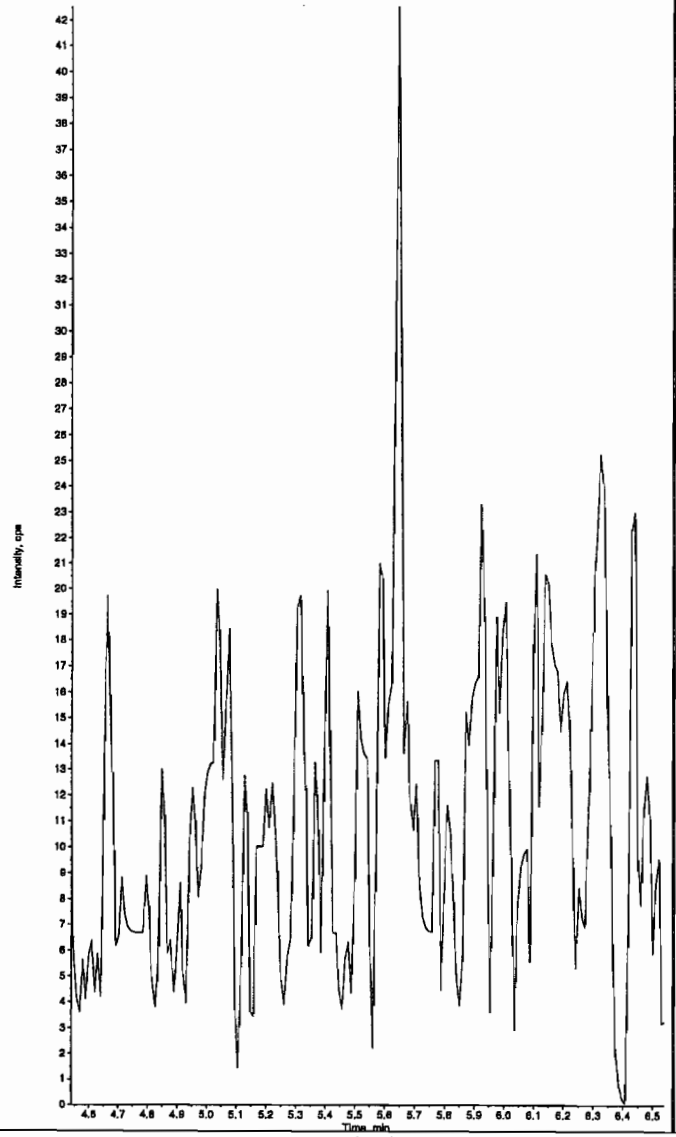
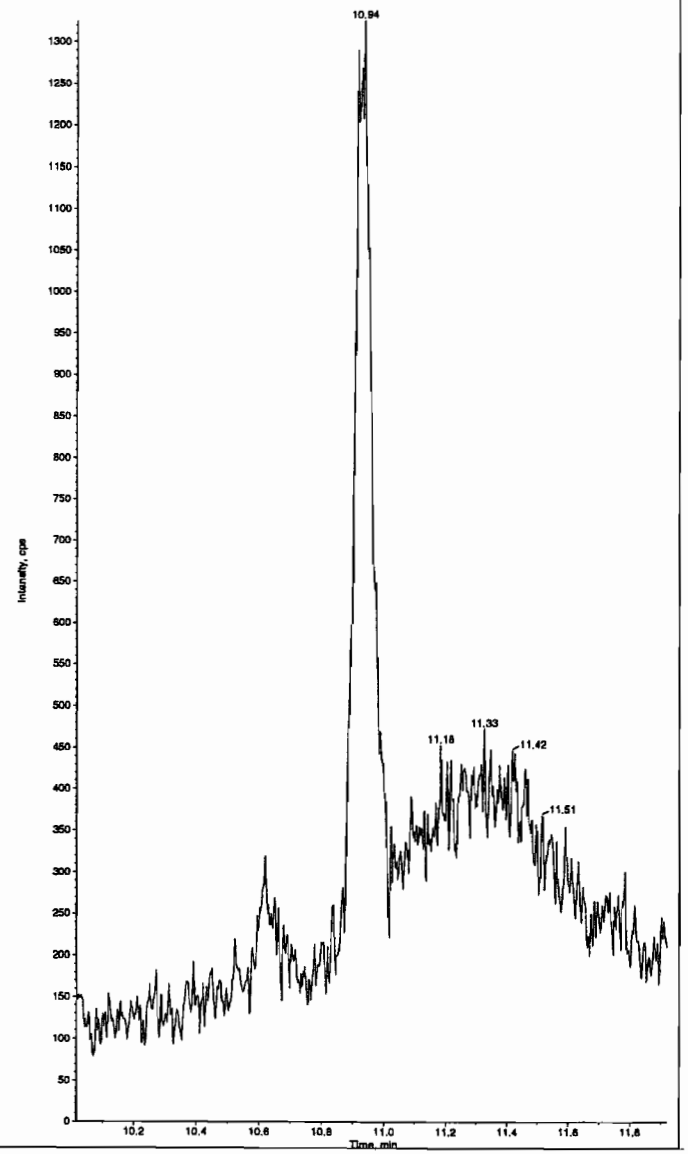
Sample Name: "246837003" Sample ID: "952679|2|LER" File: "EXS02250054.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:23:22 PM

Modified: No



Sample Name: "246837003" Sample ID: "952679|2|LER" File: "EXS02250054.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX832125" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:23:22 PM

Modified: No



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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7987

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837004

Sample Amount 2

Moisture: 34.4

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304067a

Date Analyzed: 05-MAR-10 23:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

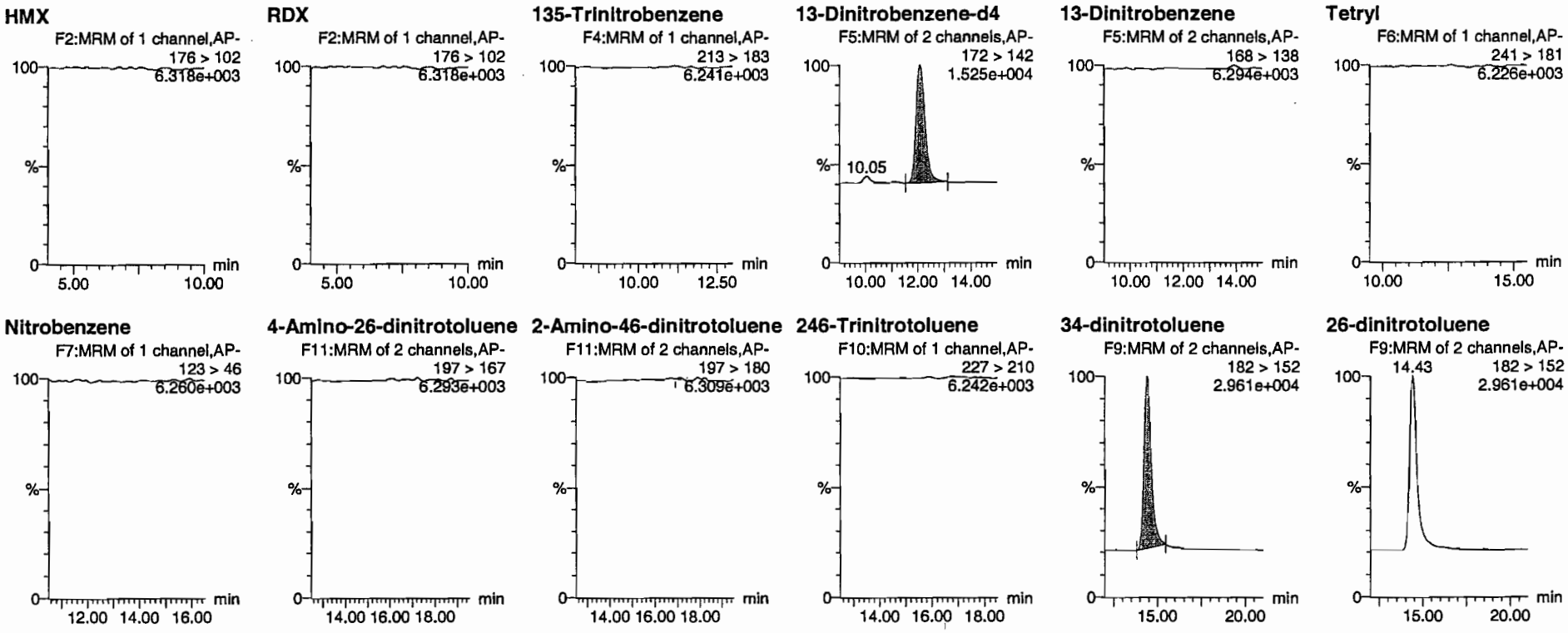
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304067a
Date: 05-Mar-2010
Time: 23:43:27
ID: 246837004 | LANL | 952679 | Soil | 21
Vial: 2:6,D

MAP 3/6/10



HMM 03/08/10

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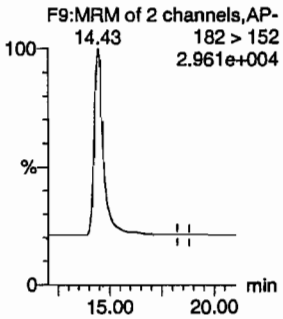
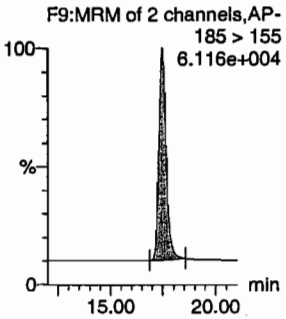
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

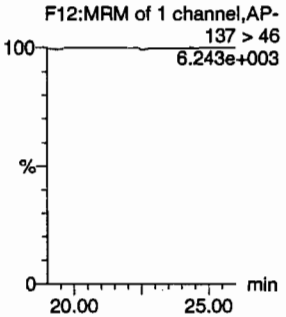
24-dinitrotoluene



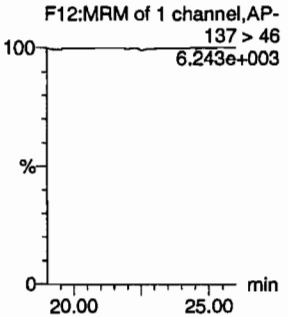
26-dinitrotoluene-d3



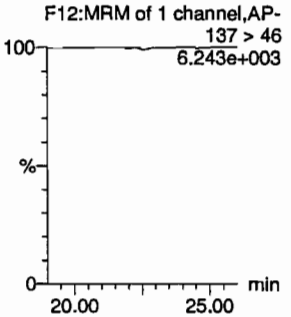
2-Nitrotoluene



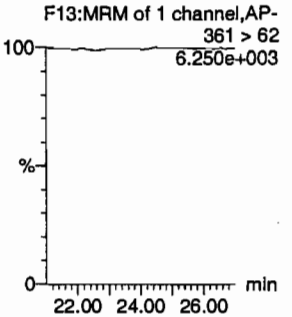
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246837004	HMX	176 > 102			3654.920									
246837004	RDX	176 > 102			3654.920									
246837004	135-Trinitrobenzene	213 > 183			3654.920									
246837004	13-Dinitrobenzene-d4	172 > 142	12.07	3654.920		3654.920	3654.920	bb			520.3787	104.1	4.1	235.2
246837004	13-Dinitrobenzene	168 > 138			3654.920									
246837004	Tetryl	241 > 181			3654.920									
246837004	Nitrobenzene	123 > 46			3654.920									
246837004	4-Amino-26-dinitrotoluene	197 > 167			21762.598									
246837004	2-Amino-46-dinitrotoluene	197 > 180			21762.598			MM-	06-Mar-10	12:11:44				
246837004	246-Trinitrotoluene	227 > 210			21762.598									
246837004	34-dinitrotoluene	182 > 152	14.43	11049.729	21762.598	11049.729	253.870	bb			262.6782	105.1	5.1	745.7
246837004	26-dinitrotoluene	182 > 152			21762.598									
246837004	24-dinitrotoluene	182 > 152			21762.598			MM-	06-Mar-10	12:17:21				
246837004	26-dinitrotoluene-d3	185 > 155	17.49	21762.598		21762.598	21762.598	bb			529.2310	105.8	5.8	2780.7
246837004	2-Nitrotoluene	137 > 46			21762.598									
246837004	4-Nitrotoluene	137 > 46			21762.598									
246837004	3-Nitrotoluene	137 > 46			21762.598									
246837004	PETN	361 > 62			21762.598									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7987

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837004

Sample Amount 2

Moisture: 34.4

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250055.wiff

Date Analyzed: 25-FEB-10 22:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

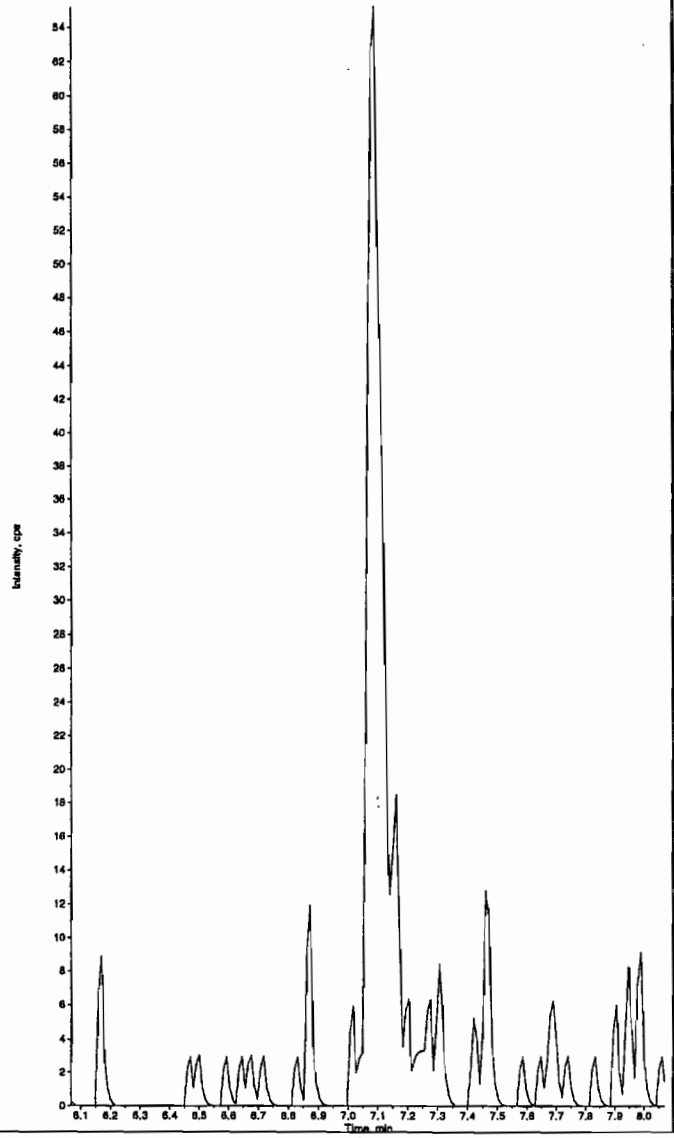
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/26/10

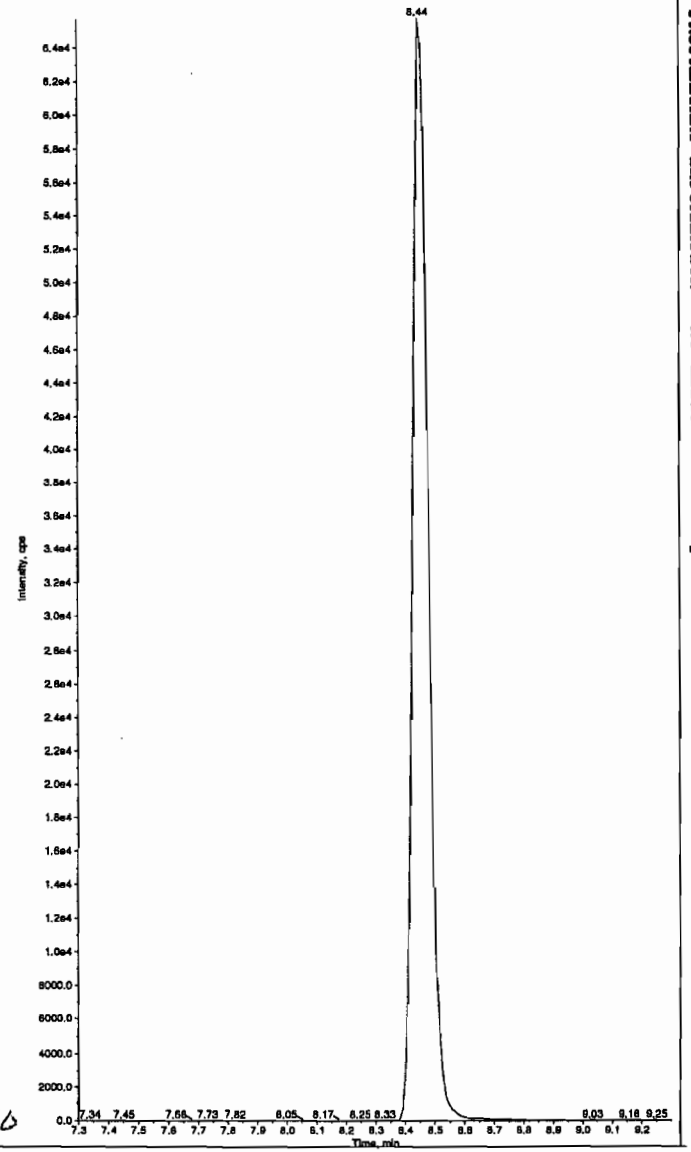
Sample Name: "246837004" Sample ID: "952679|2|LER" File: "EXS02250055.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:39:04 PM

Modified: No



Sample Name: "246837004" Sample ID: "952679|2|LER" File: "EXS02250055.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:39:04 PM

Modified: No



Hnm 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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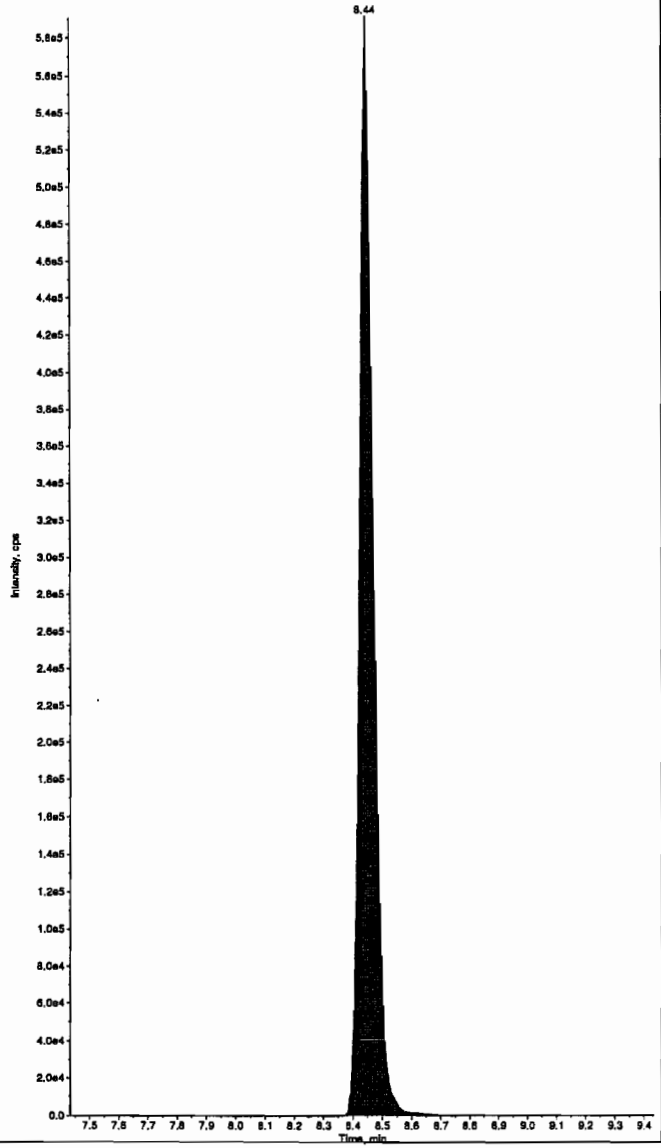
Sample Name: "246837004" Sample ID: "952679|2|LER" File: "EXS02250055.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 295. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:39:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

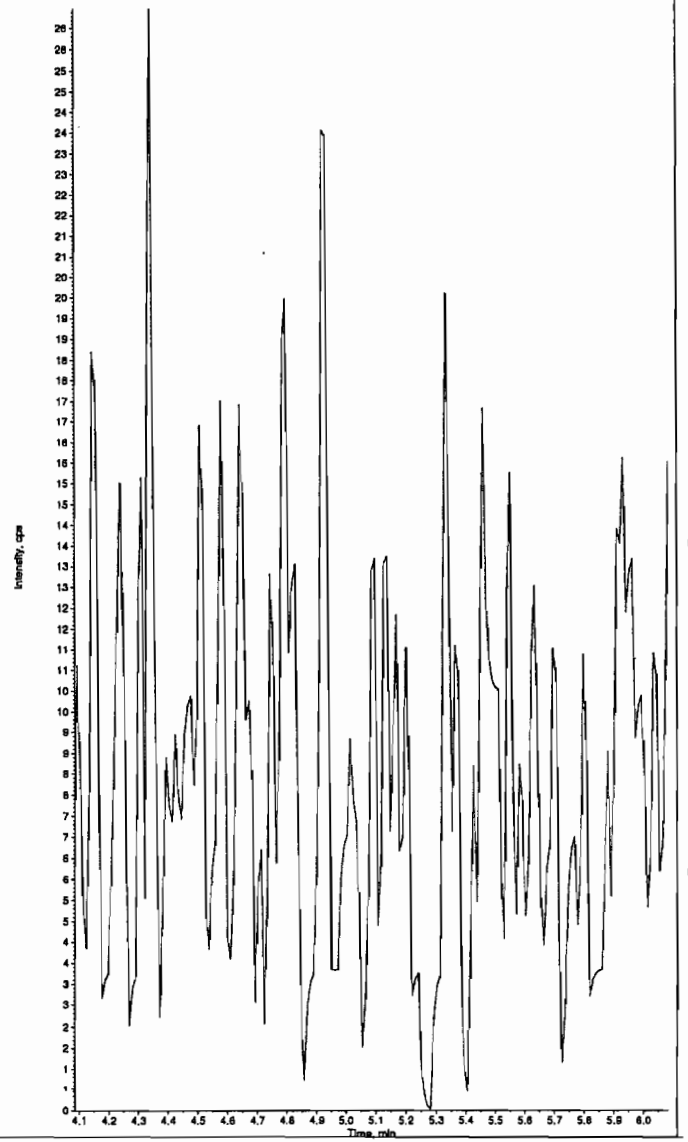
Int. Type: Valley
Retention Time: 8.44 min
Area: 1.99e+006 counts
Height: 591228.333 cps
Start Time: 8.31 min
End Time: 8.81 min



Sample Name: "246837004" Sample ID: "952679|2|LER" File: "EXS02250055.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:39:04 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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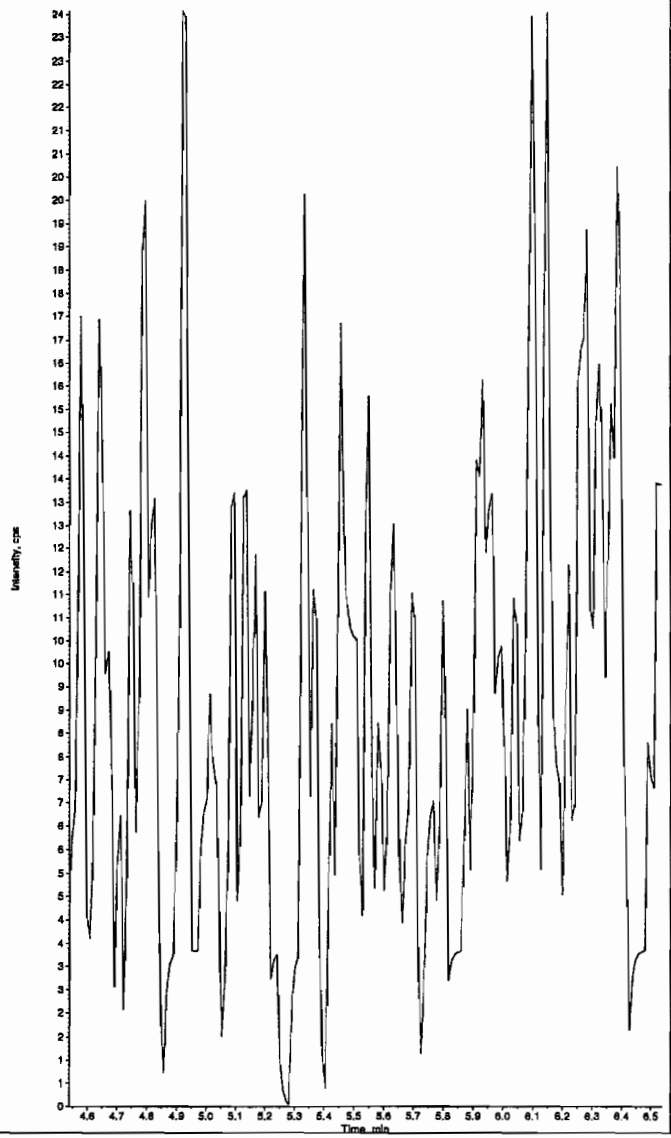
Sample Name: "246837004" Sample ID: "952679|2|LER" File: "EXS02250055.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:39:04 PM

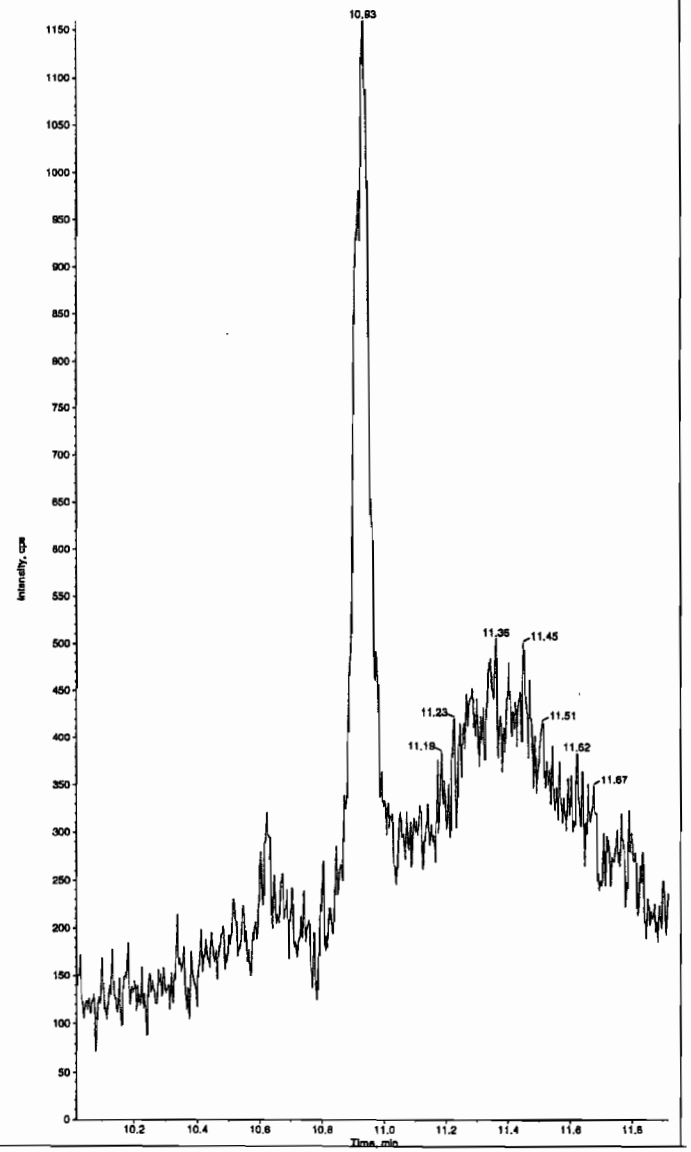
Modified: No



Sample Name: "246837004" Sample ID: "952679|2|LER" File: "EXS02250055.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:39:04 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7988

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837005

Sample Amount 2

Moisture: 9.2

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304068a

Date Analyzed: 06-MAR-10 00:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

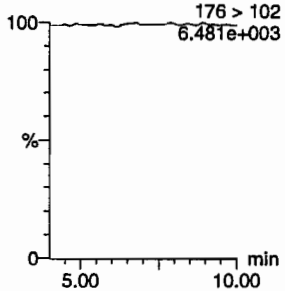
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

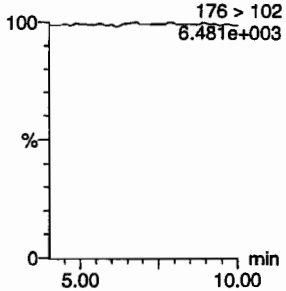
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304068a
Date: 06-Mar-2010
Time: 00:13:00
ID: 246837005 | LANL | 952679 | Solids | 21
Vial: 2:6,E

MAP 3/6/10

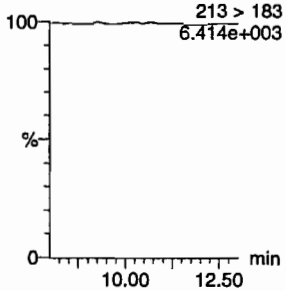
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.481e+003



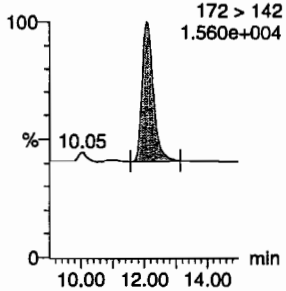
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.481e+003



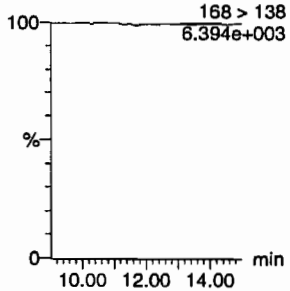
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.414e+003



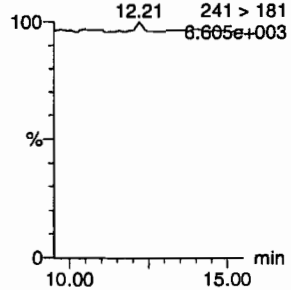
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.560e+004



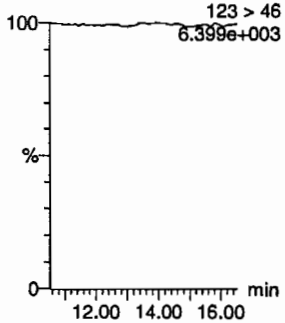
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.394e+003



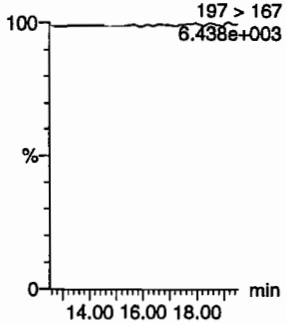
Tetryl
F6:MRM of 1 channel,AP-
12.21
241 > 181
6.605e+003



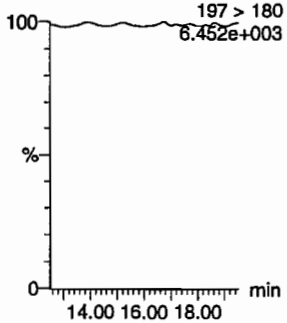
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.399e+003



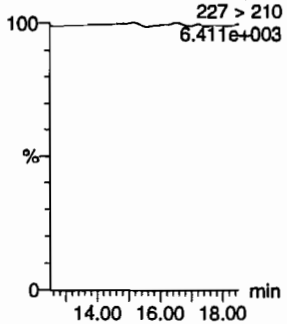
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.438e+003



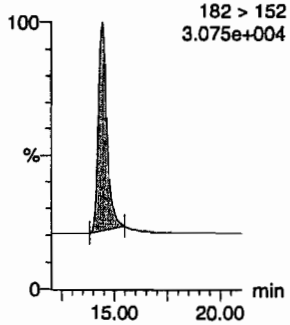
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.452e+003



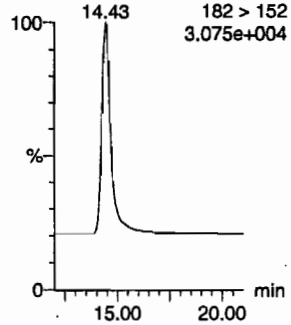
246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.411e+003



34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.075e+004



26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
3.075e+004



HMN 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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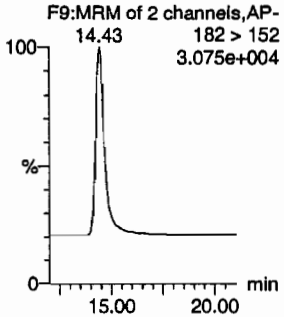
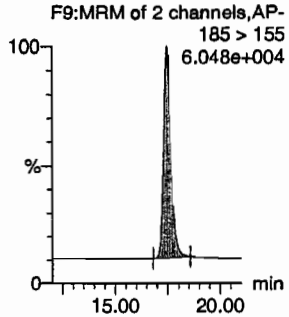
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

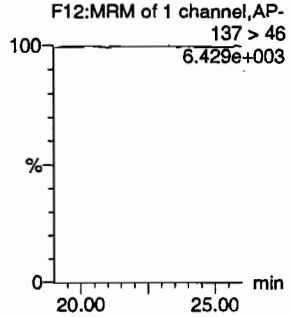
24-dinitrotoluene



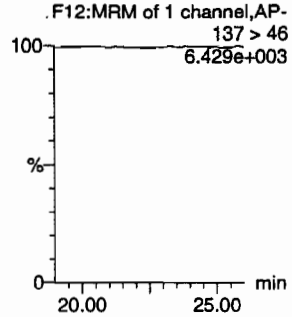
26-dinitrotoluene-d3



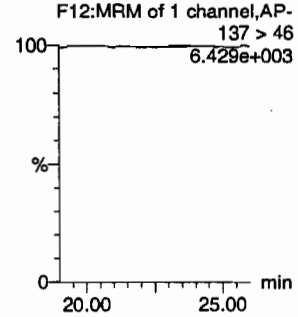
2-Nitrotoluene



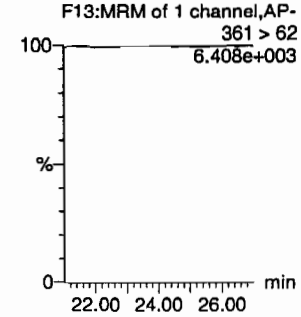
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246837005	HMX	176 > 102			3777.216									
246837005	RDX	176 > 102			3777.216									
246837005	135-Trinitrobenzene	213 > 183			3777.216									
246837005	13-Dinitrobenzene-d4	172 > 142	12.07	3777.216		3777.216	3777.216	bb			537.7909	107.6	7.6	604.6
246837005	13-Dinitrobenzene	168 > 138			3777.216									
246837005	Tetryl	241 > 181			3777.216									
246837005	Nitrobenzene	123 > 46			3777.216									
246837005	4-Amino-26-dinitrotoluene	197 > 167			21744.148									
246837005	2-Amino-46-dinitrotoluene	197 > 180			21744.148									
246837005	246-Trinitrotoluene	227 > 210			21744.148									
246837005	34-dinitrotoluene	182 > 152	14.43	11347.056	21744.148	11347.056	260.922	bb			269.9752	108.0	8.0	494.1
246837005	26-dinitrotoluene	182 > 152			21744.148									
246837005	24-dinitrotoluene	182 > 152			21744.148									
246837005	26-dinitrotoluene-d3	185 > 155	17.47	21744.148		21744.148	21744.148	bb			528.7824	105.8	5.8	1711.4
246837005	2-Nitrotoluene	137 > 46			21744.148									
246837005	4-Nitrotoluene	137 > 46			21744.148									
246837005	3-Nitrotoluene	137 > 46			21744.148									
246837005	PETN	361 > 62			21744.148									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7988

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837005

Sample Amount 2

Moisture: 9.2

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260014.wiff

Date Analyzed: 26-FEB-10 18:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

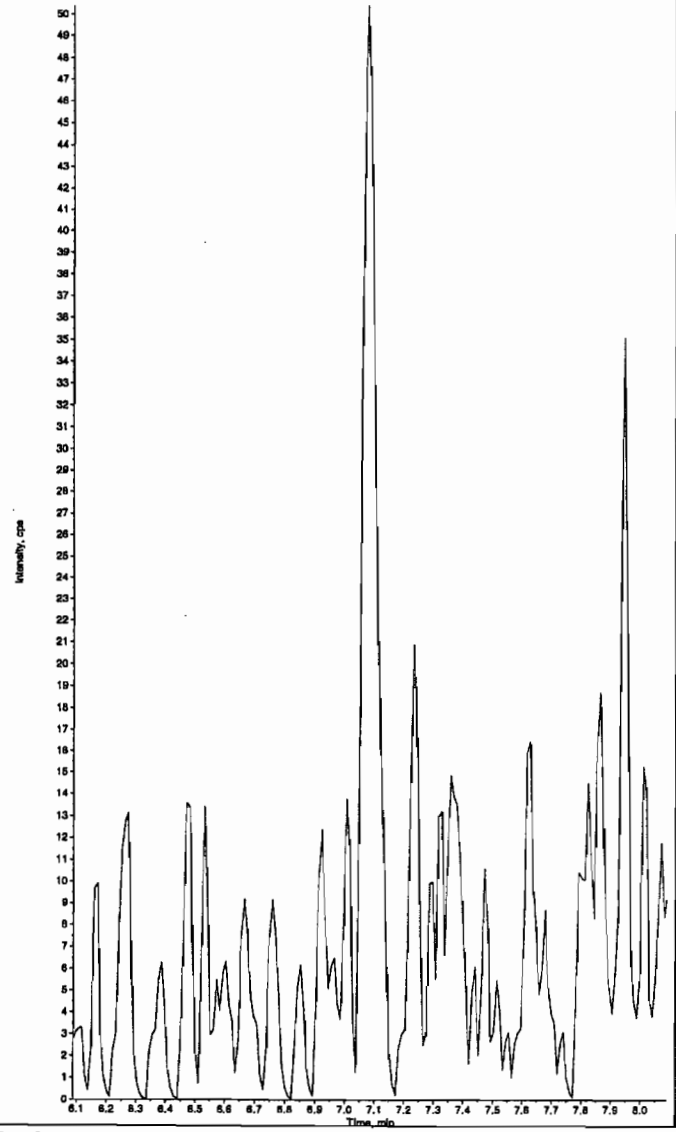
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcm 3/1/10

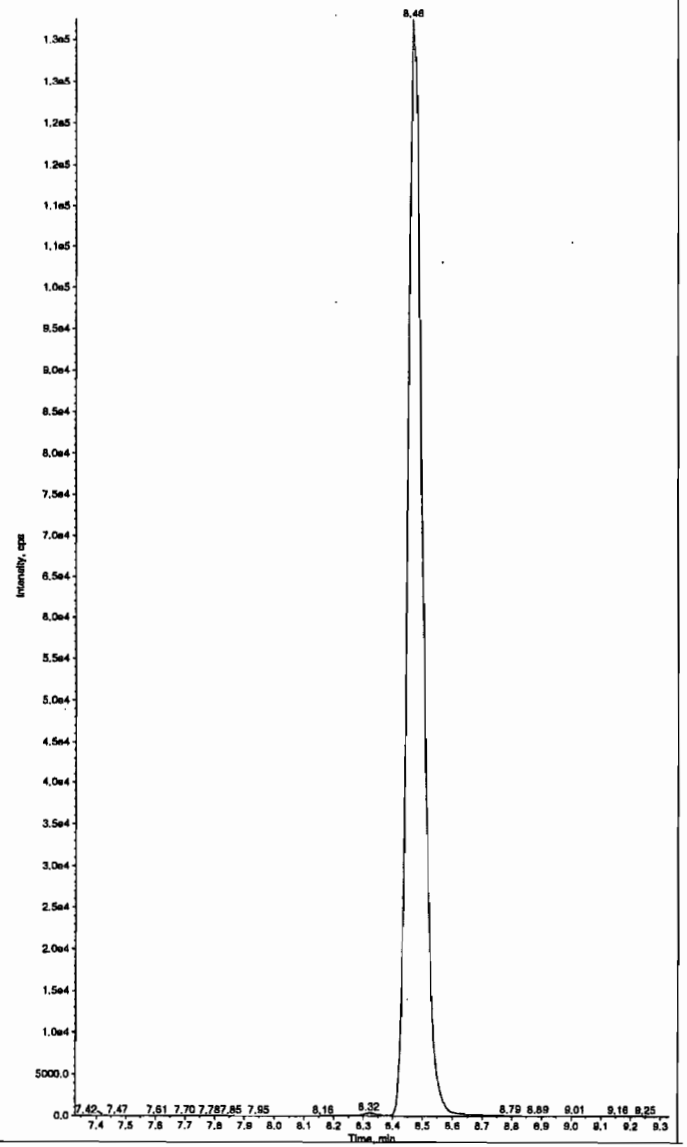
Sample Name: "246837005" Sample ID: "952679|2|LER" File: "EXS02260014.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:18:10 PM

Modified: No



Sample Name: "246837005" Sample ID: "952679|2|LER" File: "EXS02260014.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:18:10 PM

Modified: No



AMW 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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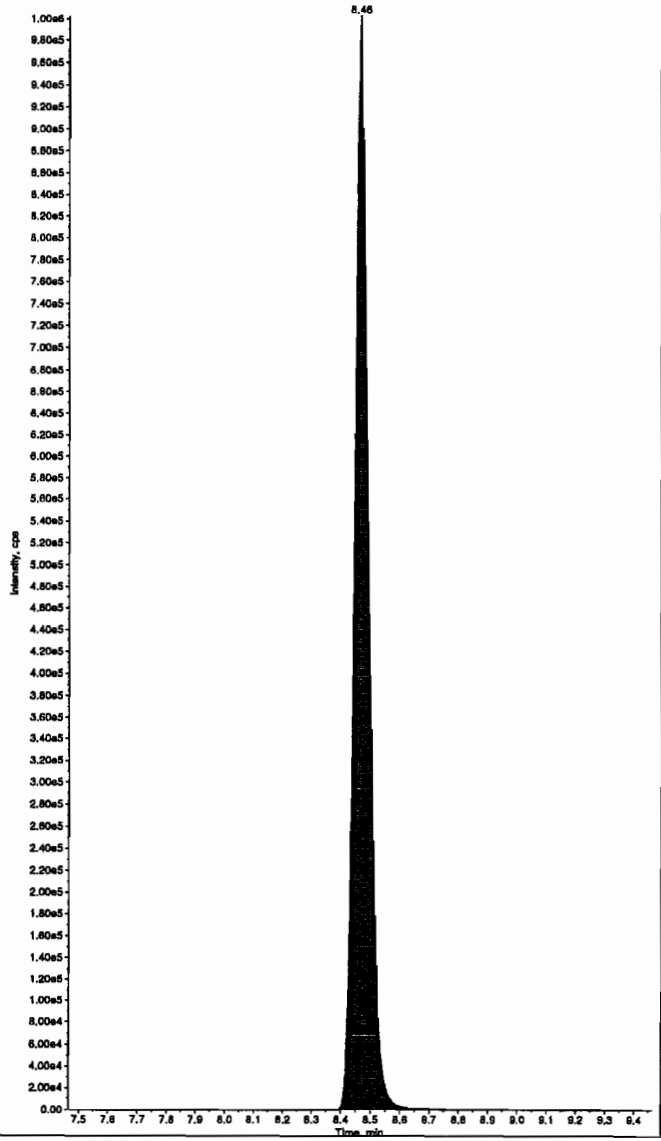
Sample Name: "246837005" Sample ID: "952679|2|LER" File: "EXS02260014.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 253. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:18:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

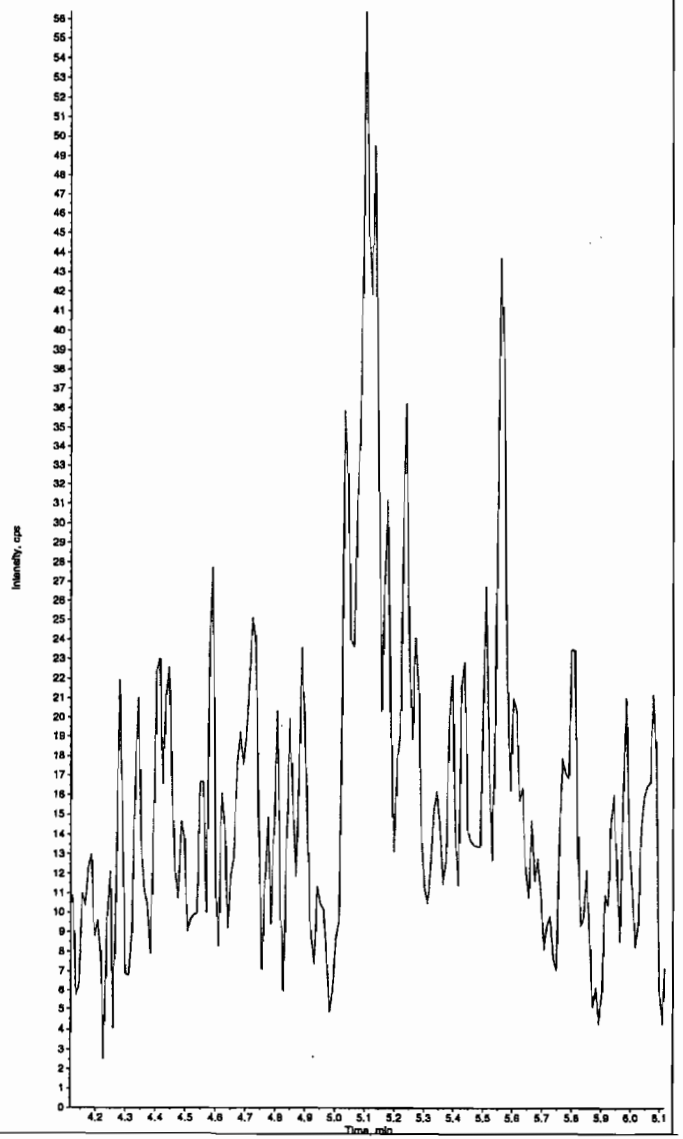
Int. Type: Valley
Retention Time: 8.46 min
Area: 3.48e+006 counts
Height: 1002992.126 cps
Start Time: 8.36 min
End Time: 8.87 min



Sample Name: "246837005" Sample ID: "952679|2|LER" File: "EXS02260014.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:18:10 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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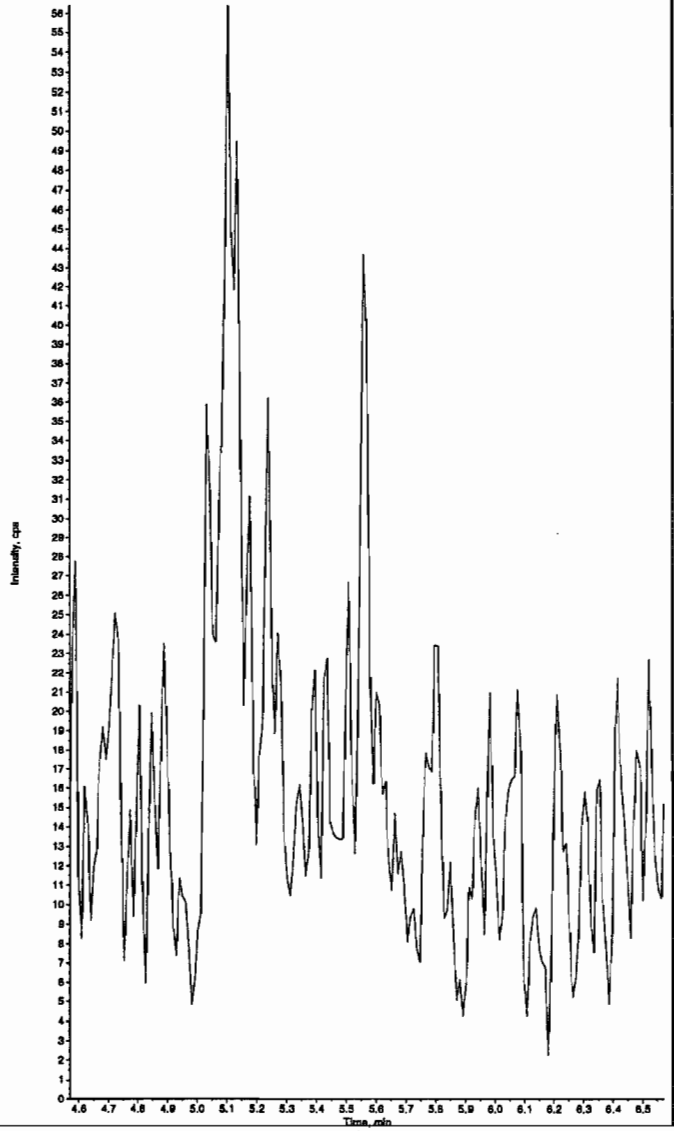
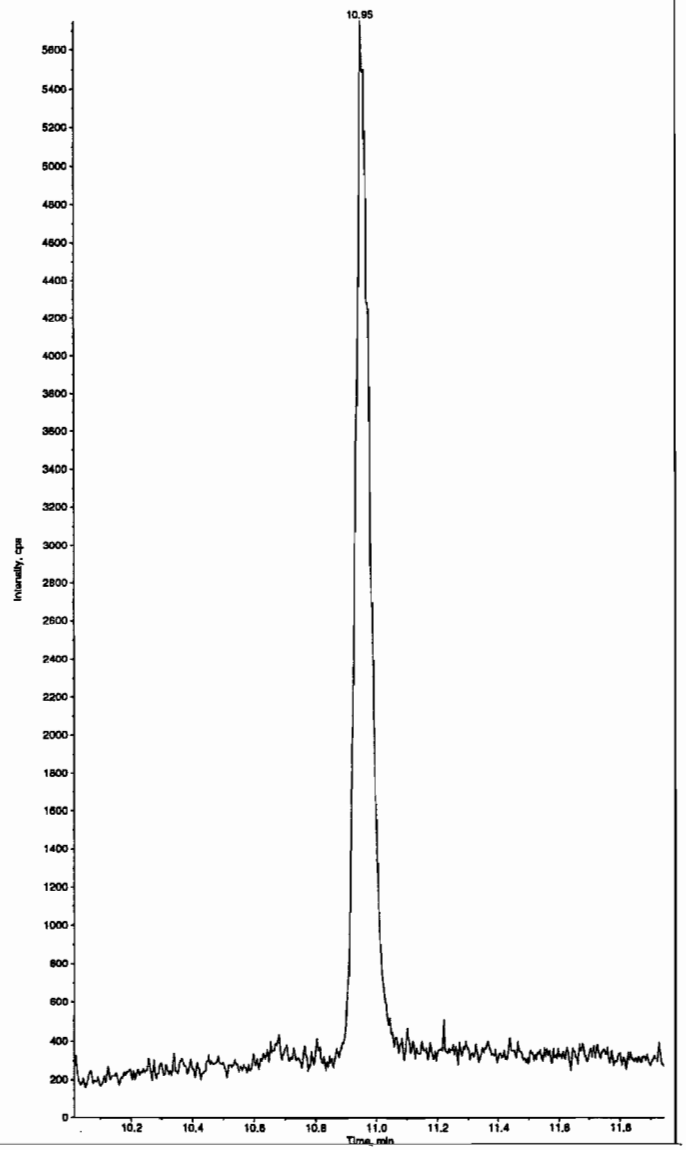
Sample Name: "246837005" Sample ID: "952679|2|LER" File: "EXS02260014.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:18:10 PM

Modified: No



Sample Name: "246837005" Sample ID: "952679|2|LER" File: "EXS02260014.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:18:10 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7989

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837006

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304069a

Date Analyzed: 06-MAR-10 00:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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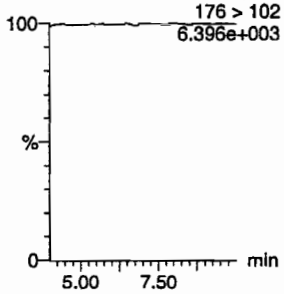
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

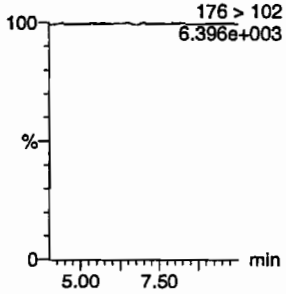
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304069a
Date: 06-Mar-2010
Time: 00:42:29
ID: 246837006 | LANL | 952679 | SOLID | 21
Vial: 2:6,F

MAP 3/6/10

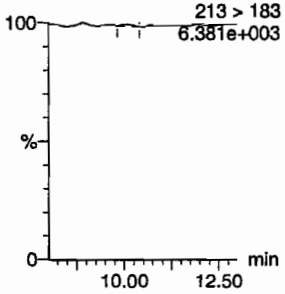
HMX
F2:MRM of 1 channel,AP-
176 > 102
6.396e+003



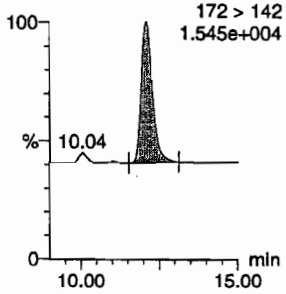
RDX
F2:MRM of 1 channel,AP-
176 > 102
6.396e+003



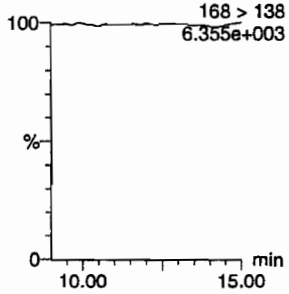
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.381e+003



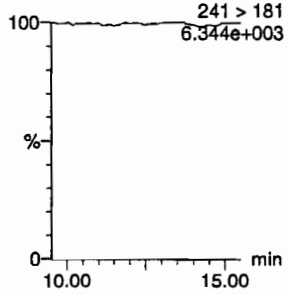
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.545e+004



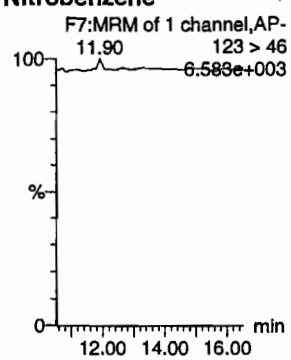
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.355e+003



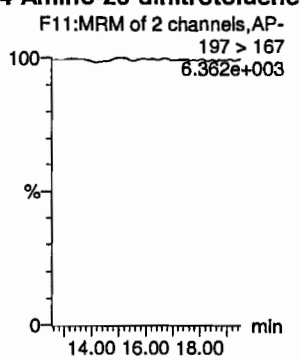
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.344e+003



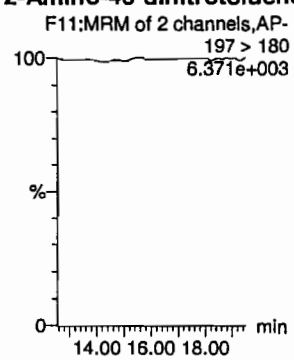
Nitrobenzene
F7:MRM of 1 channel,AP-
11.90
123 > 46
6.583e+003



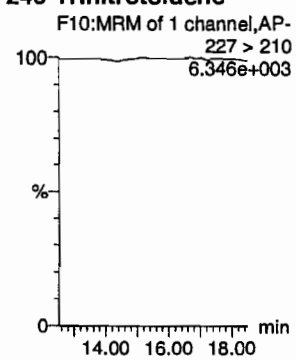
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.362e+003



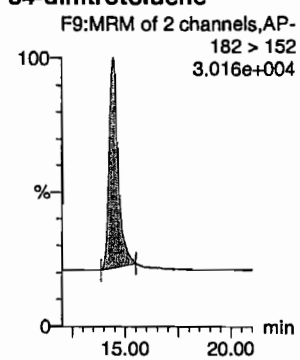
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.371e+003



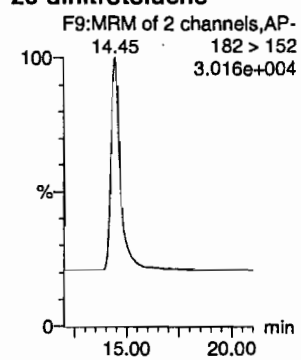
246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.346e+003



34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.016e+004



26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.45
182 > 152
3.016e+004



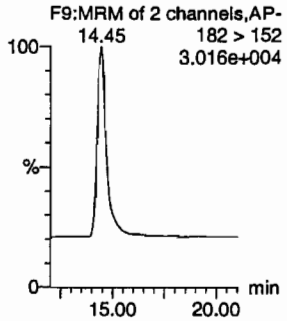
HMM 03/07/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

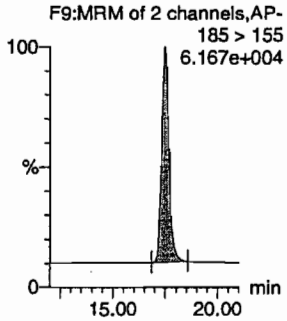
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

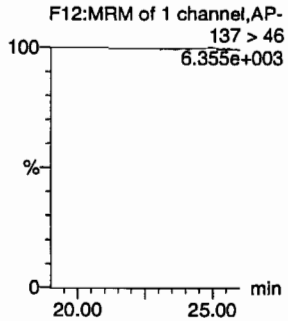
24-dinitrotoluene



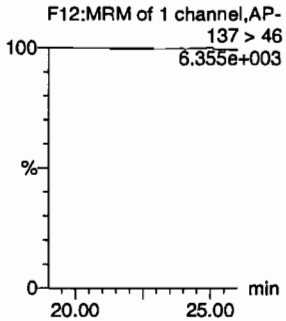
26-dinitrotoluene-d3



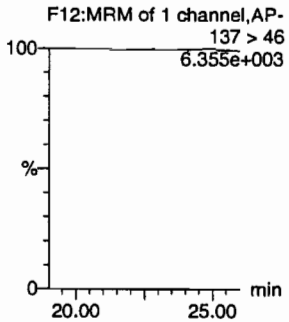
2-Nitrotoluene



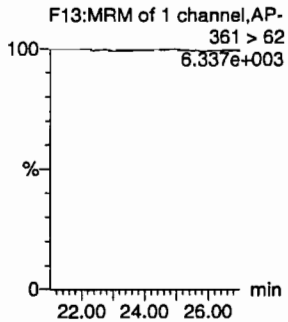
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	% Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246837006	HMX	176 > 102			3788.163									
246837006	RDX	176 > 102			3788.163									
246837006	135-Trinitrobenzene	213 > 183			3788.163			MM-	06-Mar-10	12:06:03				
246837006	13-Dinitrobenzene-d4	172 > 142	12.06	3788.163		3788.163	3788.163	bb			539.3495	107.9	7.9	162.2
246837006	13-Dinitrobenzene	168 > 138			3788.163									
246837006	Tetryl	241 > 181			3788.163									
246837006	Nitrobenzene	123 > 46			3788.163									
246837006	4-Amino-26-dinitrotoluene	197 > 167			21855.221									
246837006	2-Amino-46-dinitrotoluene	197 > 180			21855.221									
246837006	246-Trinitrotoluene	227 > 210			21855.221									
246837006	34-dinitrotoluene	182 > 152	14.45	11542.616	21855.221	11542.616	264.070	bb			273.2324	109.3	9.3	823.3
246837006	26-dinitrotoluene	182 > 152			21855.221									
246837006	24-dinitrotoluene	182 > 152			21855.221									
246837006	26-dinitrotoluene-d3	185 > 155	17.48	21855.221		21855.221	21855.221	bb			531.4835	106.3	6.3	3417.2
246837006	2-Nitrotoluene	137 > 46			21855.221									
246837006	4-Nitrotoluene	137 > 46			21855.221									
246837006	3-Nitrotoluene	137 > 46			21855.221									
246837006	PETN	361 > 62			21855.221									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7989

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 246837006

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 11-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260015.wiff

Date Analyzed: 26-FEB-10 18:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

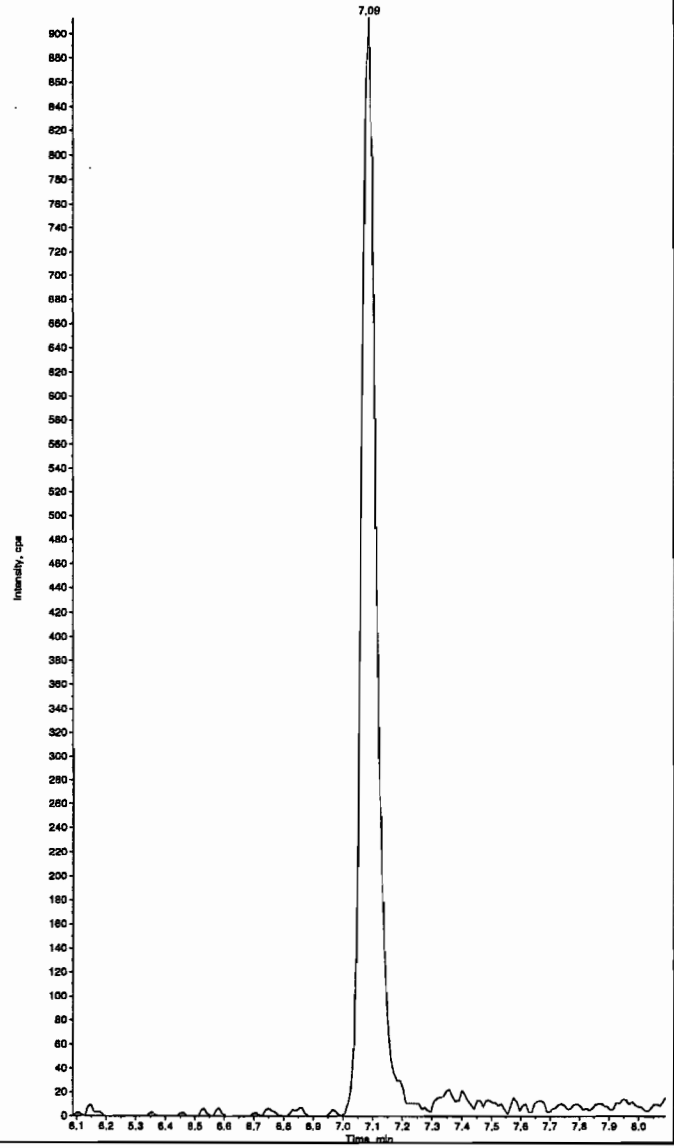
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

KCL 3/1/10

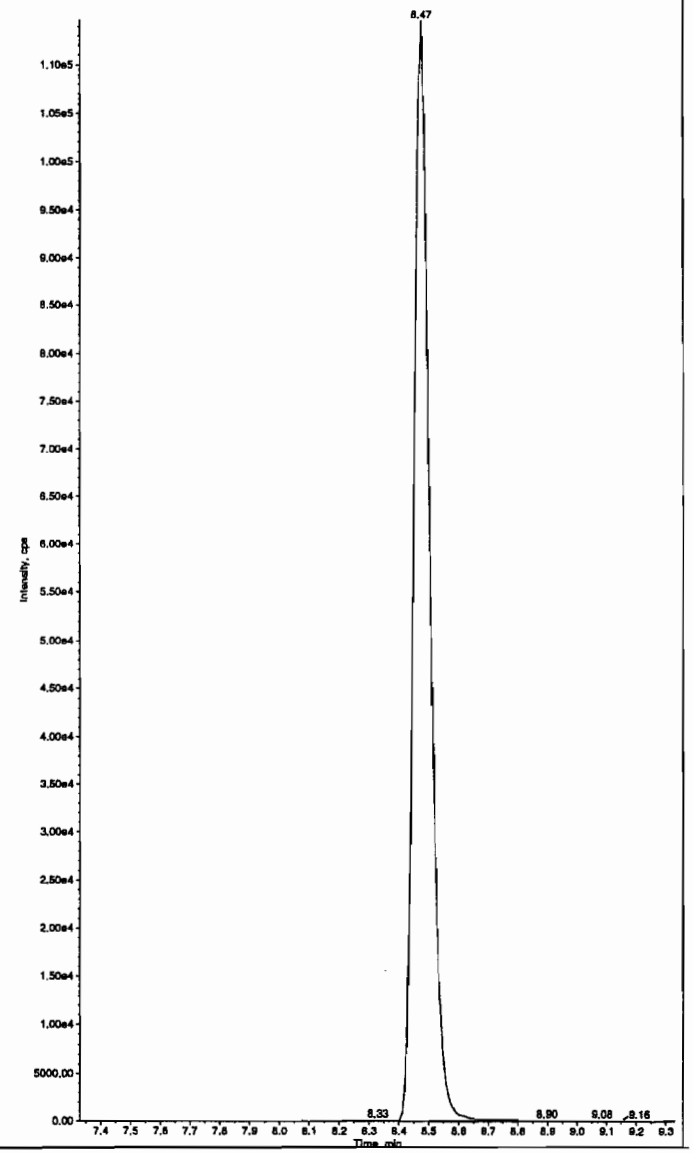
Sample Name: "246837006" Sample ID: "952679|2|LER" File: "EXS02260015.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:33:53 PM

Modified: No



Sample Name: "246837006" Sample ID: "952679|2|LER" File: "EXS02260015.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:33:53 PM

Modified: No



Hmm 03/01/10

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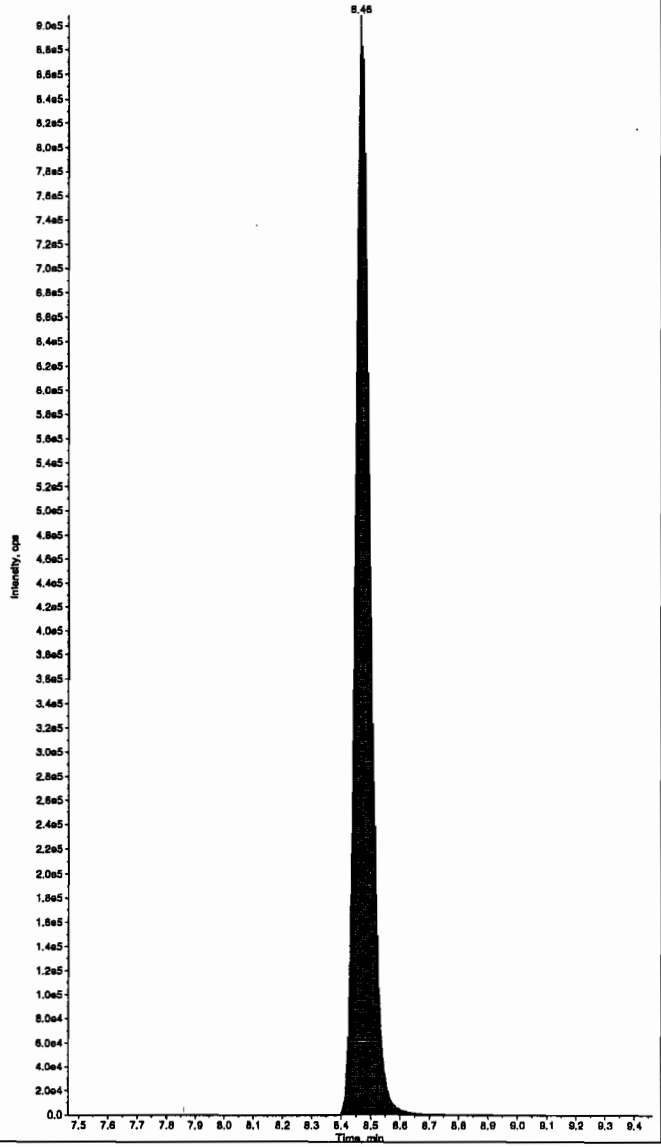
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "246837006" Sample ID: "952679|2|LER" File: "EXS02260015.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     244.     ng/mL
Acq. Date:       2/26/2010
Acq. Time:       6:33:53 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:1460.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          15.0     sec
Expected RT:         8.46    min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      8.46    min
Area:         3.35e+006    counts
Height:         908324.219  cps
Start Time:          8.36    min
End Time:            8.82    min
```



Sample Name: "246837006" Sample ID: "952679|2|LER" File: "EXS02260015.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     0.00     ng/mL
Acq. Date:       2/26/2010
Acq. Time:       6:33:53 PM

Modified:            No
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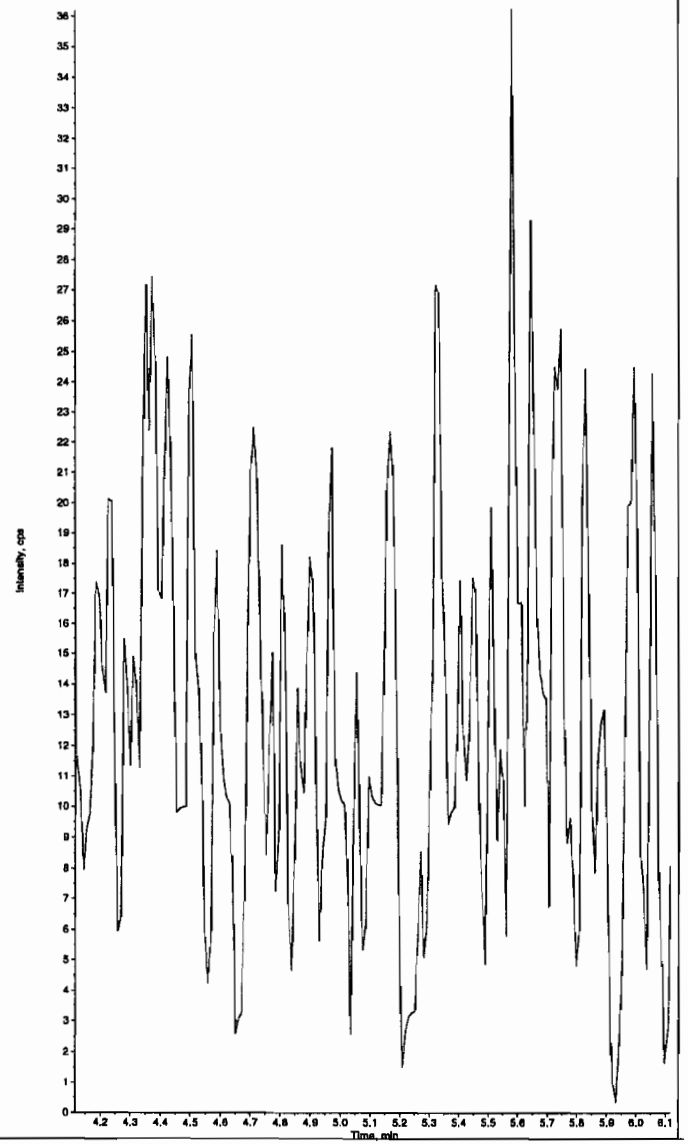

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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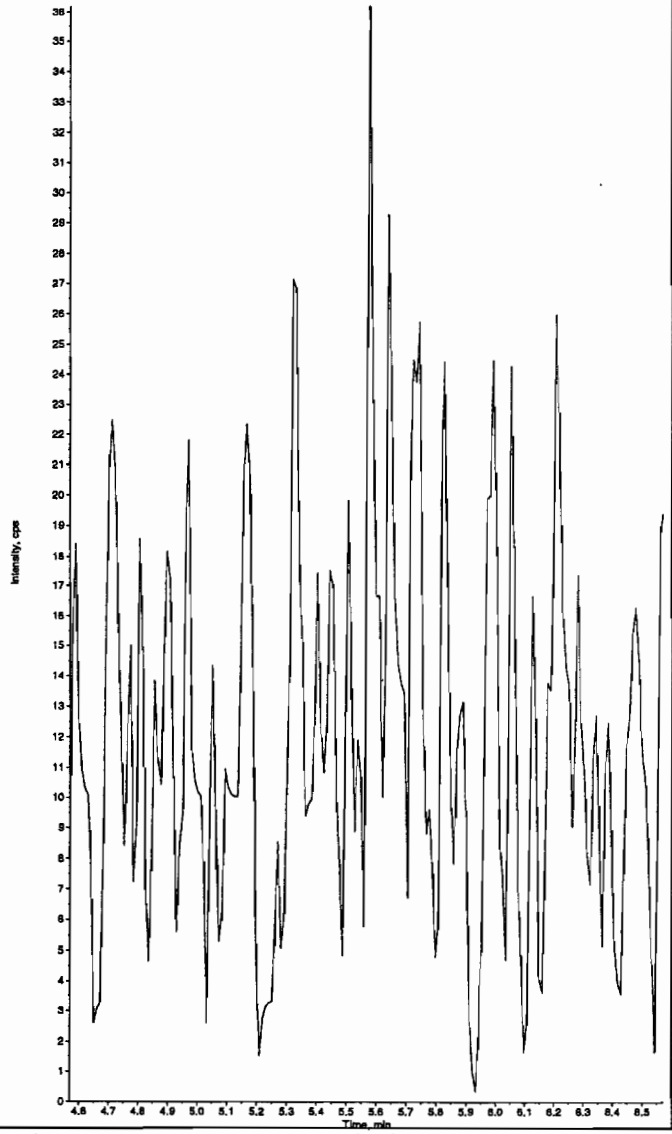
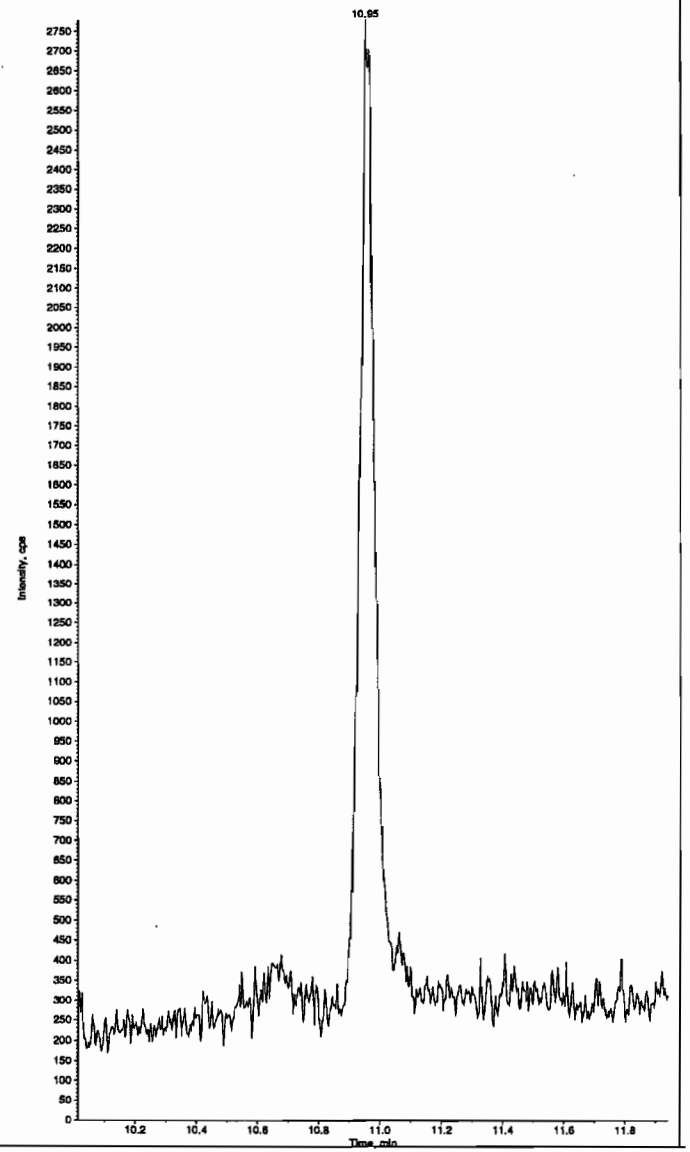
Sample Name: "246837006" Sample ID: "952679|2|LER" File: "EXS02260015.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:33:53 PM

Modified: No



Sample Name: "246837006" Sample ID: "952679|2|LER" File: "EXS02260015.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:33:53 PM

Modified: No



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1747

Lab Code: GEL

Run Date: 04-MAR-10,25-FEB-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0304003a	EXP0304004a	EXP0304005a	EXP0304006a	EXP0304007a	EXP0304008a			
Parmname									
1,3,5-Trinitrobenzene	5.003	4.577	3.342	3.576	3.258	3.608	3.894	18.476	
1,3-Dinitrobenzene-d4	6.789	7.374	7.348	6.733	7.315	6.583	7.024	5.121	
2,4,6-Trinitrotoluene	.3	.336	.341	.337	.35	.308	0.329	6.027	
2,4-Dinitrotoluene	.281	.305	.251	.262	.282	.273	0.276	6.75	
2,6-Dinitrotoluene	1.138	1.111	1.096	1.102	1.137	1.11	1.116	1.607	
2,6-Dinitrotoluene-d3	43.655	42.215	41.583	39.474	40.005	39.795	41.121	4.004	
2-Amino-4,6-dinitrotoluene	.343	.423	.391	.415	.418	.441	0.405	8.534	
3,4-Dinitrotoluene	1.067	.913	.958	.95	1.085	.826	0.967	10.048	
4-Amino-2,6-dinitrotoluene	.248	.266	.292	.289	.283	.277	0.276	5.889	
HMX	5.7	4.915	4.501	4.556	4.433	3.881	4.664	13.011	
Nitrobenzene	.847	.822	.819	.885	.844	.737	0.826	5.999	
RDX	3.372	3.021	2.826	2.815	2.597	2.536	2.861	10.661	
Tetryl	1.148	1.088	.978	.967	.995	.93	1.018	8.121	
m-Dinitrobenzene	1.232	1.296	1.278	1.225	1.314	1.254	1.267	2.82	
m-Nitrotoluene	.108	.096	.087	.092	.093	.09	0.094	7.937	
o-Nitrotoluene	.162	.165	.148	.152	.152	.15	0.155	4.487	
p-Nitrotoluene	.078	.08	.073	.075	.076	.074	0.076	3.543	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1747

Lab Code: GEL

Run Date: 04-MAR-10,25-FEB-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0304003a	EXP0304004a	EXP0304005a	EXP0304006a	EXP0304007a	EXP0304008a					
Parmname:											
PETN	3472.76	5897.1	19825.4	32819.1	49655	58513.4	2.265	-.0008626	37.152	.9967	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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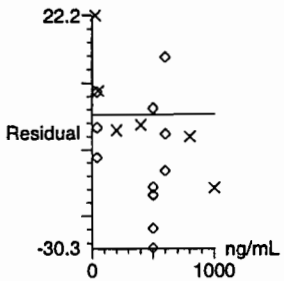
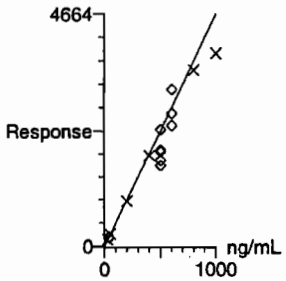
Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010
Calibration: Untitled, Time: Fri Mar 05 10:16:18 2010

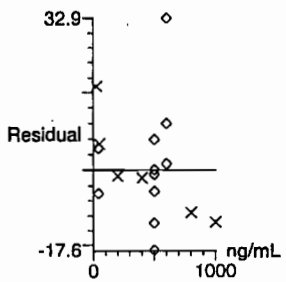
Compound name: HMX
Response Factor: 4.66431
RRF SD: 0.606877, % Relative SD: 13.0111
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

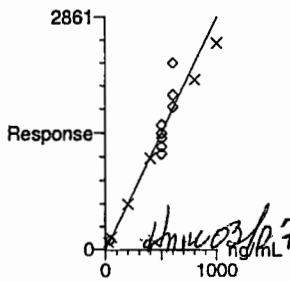




MM
3/6/10

Compound name: RDX
Response Factor: 2.8614
RRF SD: 0.305061, % Relative SD: 10.6612
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF





MM 03/07/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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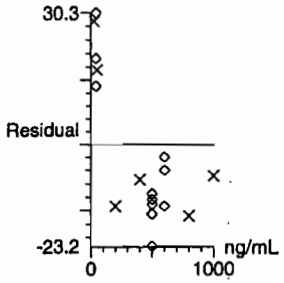
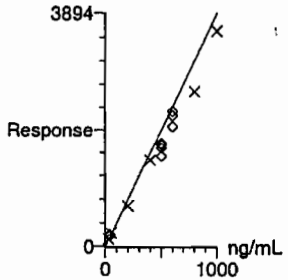
Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

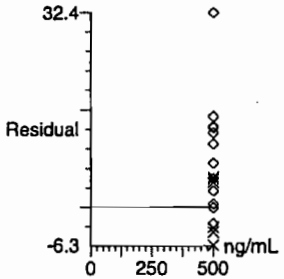
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

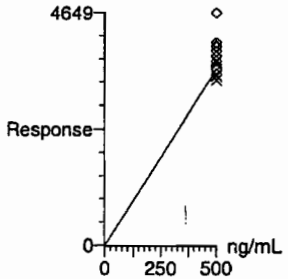
Compound name: 135-Trinitrobenzene
Response Factor: 3.89381
RRF SD: 0.719425, % Relative SD: 18.4761
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF





Compound name: 13-Dinitrobenzene-d4
Response Factor: 7.02358
RRF SD: 0.359695, % Relative SD: 5.12125
Response type: External Std, Area
Curve type: RF





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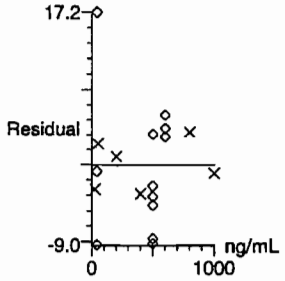
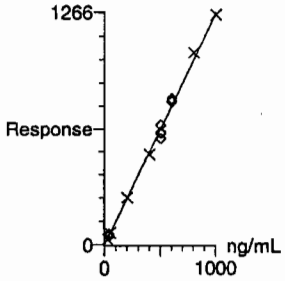
Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

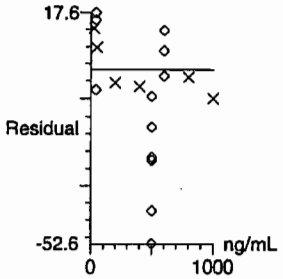
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

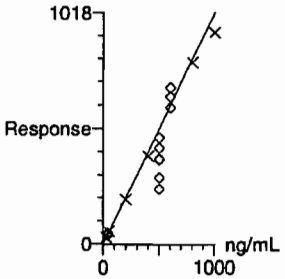
Compound name: 13-Dinitrobenzene
Response Factor: 1.26646
RRF SD: 0.0357173, % Relative SD: 2.82024
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF





Compound name: Tetryl
Response Factor: 1.01755
RRF SD: 0.0826324, % Relative SD: 8.1207
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

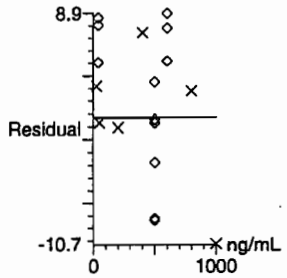


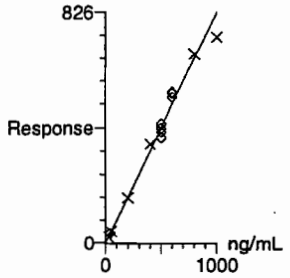


Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

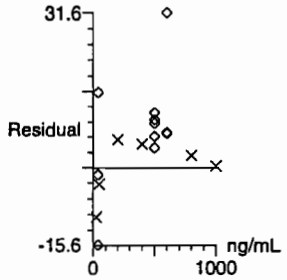
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

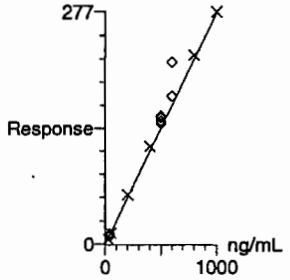
Compound name: Nitrobenzene
Response Factor: 0.825734
RRF SD: 0.0495369, % Relative SD: 5.99913
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF





Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.275828
RRF SD: 0.0162429, % Relative SD: 5.88879
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF





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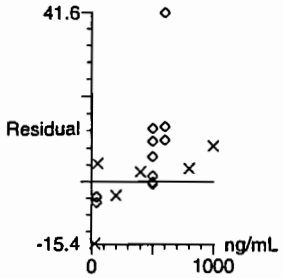
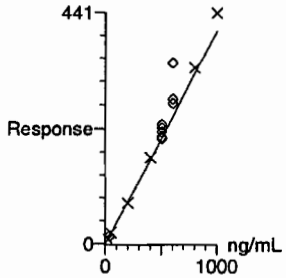
GEL Laboratories, LLC / Analyst : Michael A. Penny

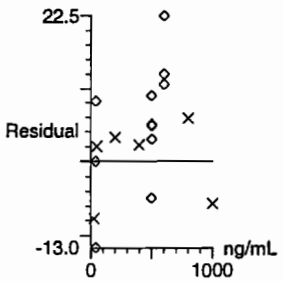
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

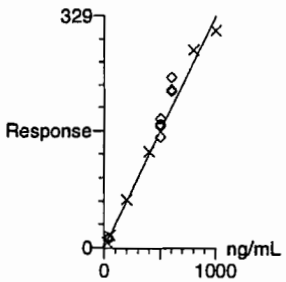
Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.405103
RRF SD: 0.0345707, % Relative SD: 8.53382
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF





Compound name: 246-Trinitrotoluene
Response Factor: 0.328607
RRF SD: 0.0198061, % Relative SD: 6.02729
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF





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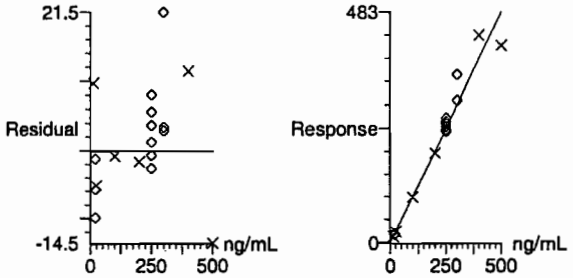
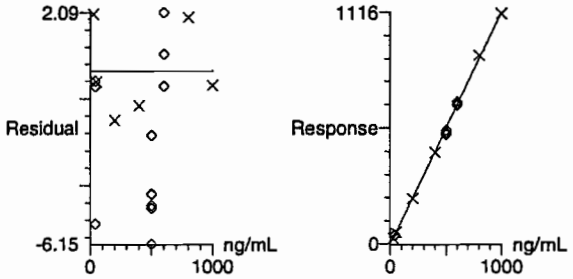
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.966467
RRF SD: 0.097114, % Relative SD: 10.0484
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Compound name: 26-dinitrotoluene
Response Factor: 1.11554
RRF SD: 0.0179296, % Relative SD: 1.60726
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



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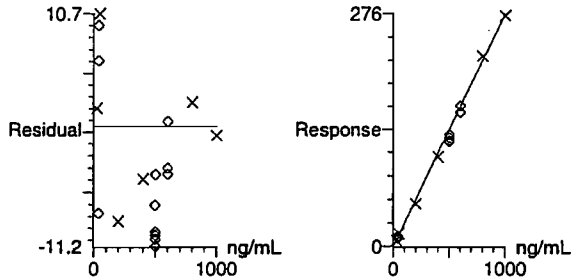
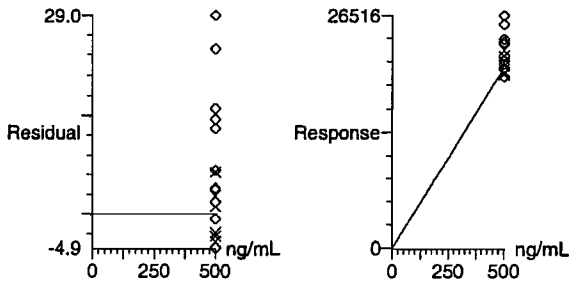
Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.275647
RRF SD: 0.0186056, % Relative SD: 6.74978
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Compound name: 26-dinitrotoluene-d3
Response Factor: 41.1212
RRF SD: 1.6463, % Relative SD: 4.00354
Response type: External Std, Area
Curve type: RF



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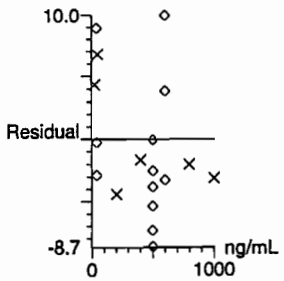
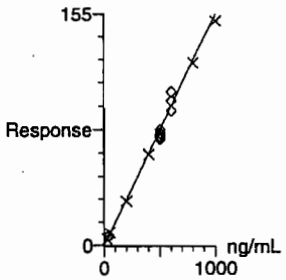
Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

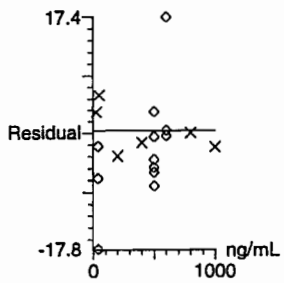
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

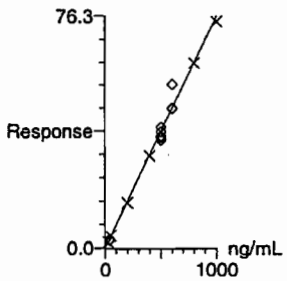
Compound name: 2-Nitrotoluene
Response Factor: 0.154899
RRF SD: 0.00695032, % Relative SD: 4.487
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF





Compound name: 4-Nitrotoluene
Response Factor: 0.0762739
RRF SD: 0.00270209, % Relative SD: 3.54261
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

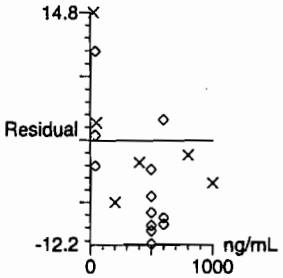


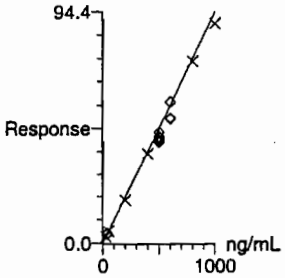


Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

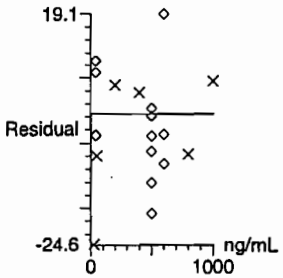
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

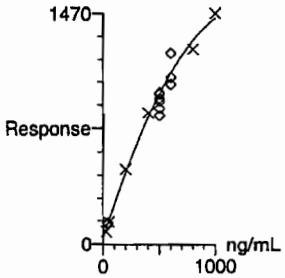
Compound name: 3-Nitrotoluene
Response Factor: 0.0943545
RRF SD: 0.00748873, % Relative SD: 7.9368
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF





Compound name: PETN
Coefficient of Determination: 0.996692
Calibration curve: -0.000862571 * x^2 + 2.26503 * x + 37.1516
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None





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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0304010a

Analysis Date: 04–MAR–10 19:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	300	309.423	103	
4–Amino–2,6–dinitrotoluene	600	641.886	107	
HMX	600	573.556	96	
Nitrobenzene	600	645.754	108	
PETN	600	544.002	91	
RDX	600	658.987	110	
Tetryl	600	634.792	106	
m–Dinitrobenzene	600	625.108	104	
m–Nitrotoluene	600	544.846	91	
o–Nitrotoluene	600	580.638	97	
p–Nitrotoluene	600	595.264	99	
1,3,5–Trinitrobenzene	600	563.54	94	
1,3–Dinitrobenzene–d4	500	499.497	100	
2,4,6–Trinitrotoluene	600	681.185	114	
2,4–Dinitrotoluene	600	576.449	96	
2,6–Dinitrotoluene	600	596.772	99	
2,6–Dinitrotoluene–d3	500	517.678	104	
2–Amino–4,6–dinitrotoluene	600	660.901	110	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

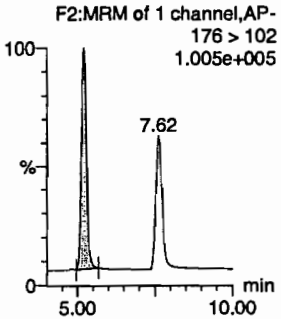
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

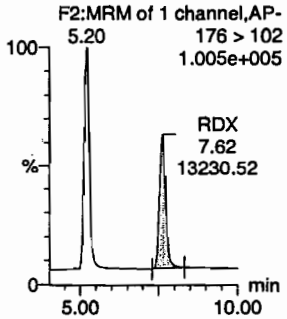
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304010a
Date: 04-Mar-2010
Time: 19:41:56
ID: WXX100304-07ICV
Vial: 1:1,B

MMP 3/6/10

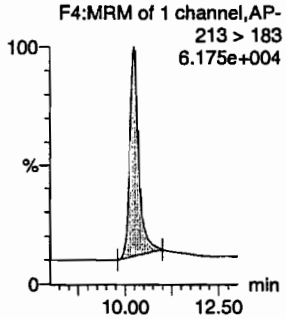
HMX



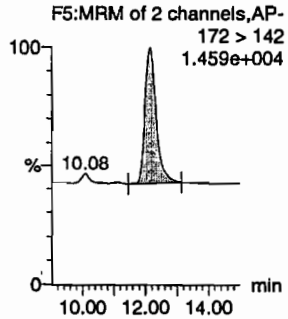
RDX



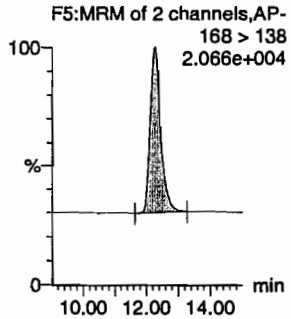
135-Trinitrobenzene



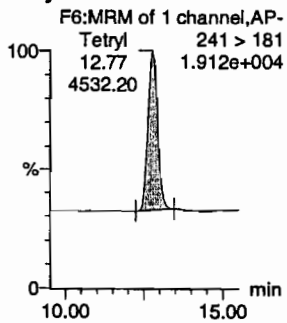
13-Dinitrobenzene-d4



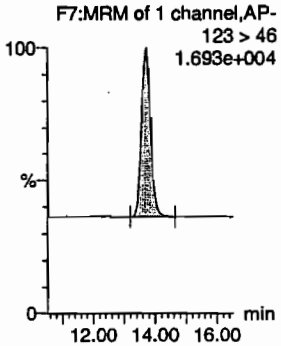
13-Dinitrobenzene



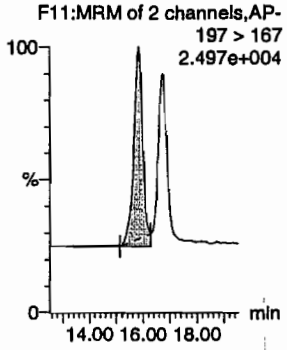
Tetryl



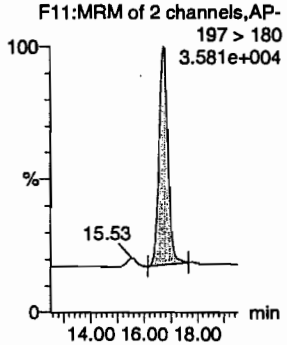
Nitrobenzene



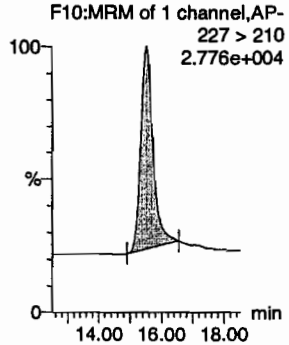
4-Amino-26-dinitrotoluene



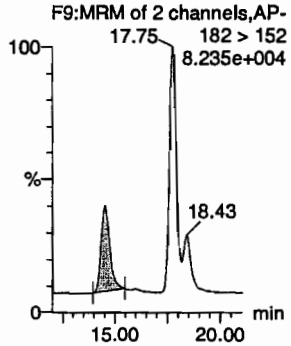
2-Amino-46-dinitrotoluene



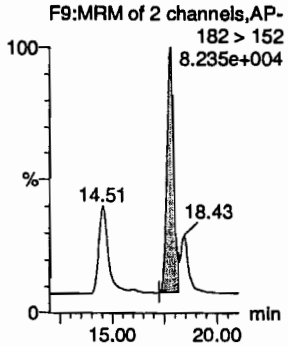
246-Trinitrotoluene



34-dinitrotoluene



26-dinitrotoluene



thme 03/07/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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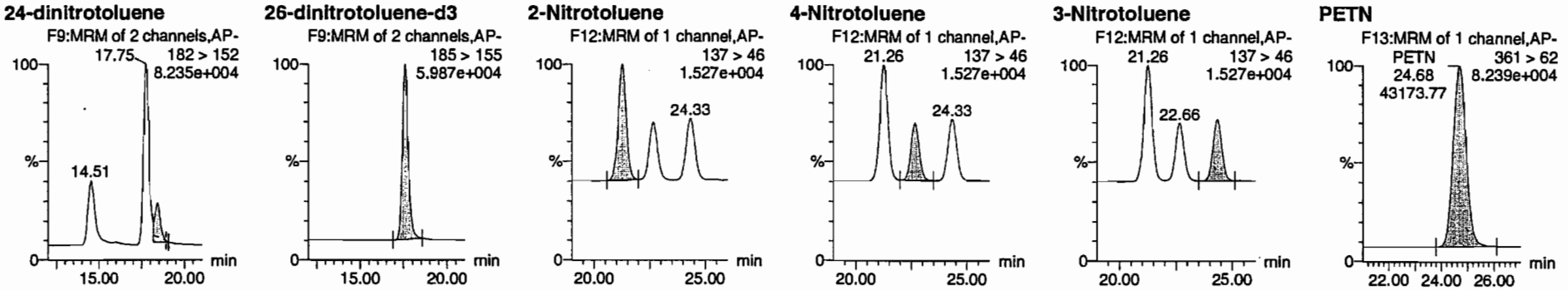
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07ICV	HMX	176 > 102	5.20	18770.877	3508.256	18770.877	2675.243	bb			573.5564	95.6	-4.4	1993.1
WXX100304-07ICV	RDX	176 > 102	7.62	13230.516	3508.256	13230.516	1885.626	bb			658.9874	109.8	9.8	1203.8
WXX100304-07ICV	135-Trinitrobenzene	213 > 183	10.23	15396.480	3508.256	15396.480	2194.321	bb			563.5402	93.9	-6.1	1042.0
WXX100304-07ICV	13-Dinitrobenzene-d4	172 > 142	12.14	3508.256		3508.256	3508.256	bb			499.4970	99.9	-0.1	169.8
WXX100304-07ICV	13-Dinitrobenzene	168 > 138	12.27	5554.798	3508.256	5554.798	791.675	bb			625.1075	104.2	4.2	539.3
WXX100304-07ICV	Tetryl	241 > 181	12.77	4532.205	3508.256	4532.205	645.934	bb			634.7921	105.8	5.8	454.7
WXX100304-07ICV	Nitrobenzene	123 > 46	13.72	3741.350	3508.256	3741.350	533.221	bb			645.7538	107.6	7.6	316.6
WXX100304-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7537.907	21287.525	7537.907	177.050	MM	05-Mar-10	10:05:37	641.8862	107.0	7.0	199.0
WXX100304-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11398.739	21287.525	11398.739	267.733	bb			660.9014	110.2	10.2	1125.1
WXX100304-07ICV	246-Trinitrotoluene	227 > 210	15.55	9530.100	21287.525	9530.100	223.842	bb			681.1854	113.5	13.5	588.8
WXX100304-07ICV	34-dinitrotoluene	182 > 152	14.51	12731.959	21287.525	12731.959	299.047	bb			309.4234	103.1	3.1	594.2
WXX100304-07ICV	26-dinitrotoluene	182 > 152	17.75	28343.234	21287.525	28343.234	665.724	MM	05-Mar-10	10:09:47	596.7715	99.5	-0.5	1698.9
WXX100304-07ICV	24-dinitrotoluene	182 > 152	18.43	6765.037	21287.525	6765.037	158.897	MM	05-Mar-10	10:13:35	576.4492	96.1	-3.9	371.1
WXX100304-07ICV	26-dinitrotoluene-d3	185 > 155	17.57	21287.525		21287.525	21287.525	bb			517.6780	103.5	3.5	1368.6
WXX100304-07ICV	2-Nitrotoluene	137 > 46	21.26	3829.206	21287.525	3829.206	89.940	bb			580.6380	96.8	-3.2	780.1
WXX100304-07ICV	4-Nitrotoluene	137 > 46	22.66	1933.041	21287.525	1933.041	45.403	bb			595.2642	99.2	-0.8	380.6
WXX100304-07ICV	3-Nitrotoluene	137 > 46	24.33	2188.727	21287.525	2188.727	51.409	bb			544.8458	90.8	-9.2	406.5
WXX100304-07ICV	PETN	361 > 62	24.68	43173.770	21287.525	43173.770	1014.063	bb			544.0022	90.7	-9.3	13474.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/04/10
Time of Injection: 1941
Standard Number: WXX100304-07ICV
Data File: EXP0304010a

HMX	95.6
RDX	109.8
135-TNB	93.9
13-DNB	104.2
Tetryl	105.8
Nitrobenzene	107.6
4A-26-DNT	107.0
2A-46-DNT	110.2
246-TNT	113.5
34-DNT(surr)	103.1
26-DNT	99.5
24-DNT	96.1
2-NT	96.8
4-NT	99.2
3-NT	90.8
PETN	90.7
Total	1623.8
Average	101.5

MATT 3/6/10

HMC 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1747

Lab Code: GEL

Run Date: 04-MAR-10,25-FEB-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02250003.wifl	EXS02250004.wifl	EXS02250005.wifl	EXS02250006.wifl	EXS02250007.wifl	EXS02250008.wifl	EXS02250009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	41700	95800	229000	443000	588000	1010000	1830000	-9270	927	-.002	.9961	
2,6-Diamino-4-nitrotoluene	61700	106000	317000	630000	1010000	1280000	2520000	-19800	1360	-.048	.9998	
3,4-Dinitrotoluene	168000	317000	762000	1610000	2290000	3270000	5910000	-63500	7390	-1.41	.9995	
3,5-Dinitroaniline	251000	460000	1150000	2180000	3410000	4310000	7740000	-12700	4790	-.454	.9998	
TATB	42400	82000	224000	454000	725000	941000	1880000	-13300	970	-.012	.9999	
tris(o-cresyl) phosphate	680000	1350000	3200000	6150000	8990000	11800000	19900000	-5880	13300	-1.68	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.33e+004			
a1	970			
a2	-0.0115			

Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.27e+004			
a1	4.79e+003			
a2	-0.454			

Correlation coefficient 0.9998
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-6.35e+004			
a1	7.39e+003			
a2	-1.41			

Correlation coefficient 0.9995
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.98e+004			
a1	1.36e+003			
a2	-0.0483			

Correlation coefficient 0.9998
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Lan 2/26/10

Hunt 02/26/10

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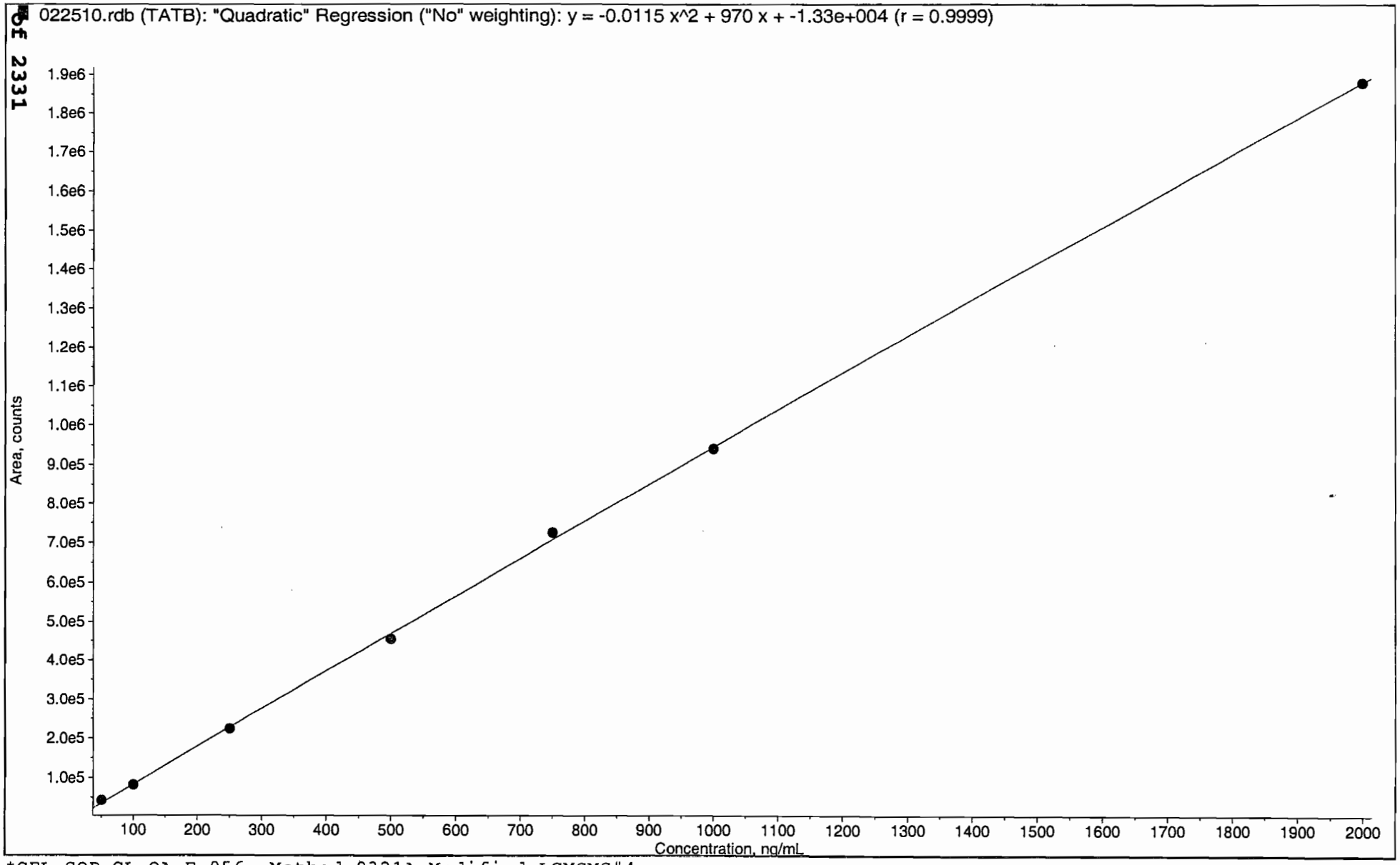
Fit	Quadratic	Weighting	None	Iterate No
a0	-9.27e+003			
a1	927			
a2	-0.00207			

Correlation coefficient 0.9961
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.88e+003			
a1	1.33e+004			
a2	-1.68			

Correlation coefficient 0.9999
Use Area



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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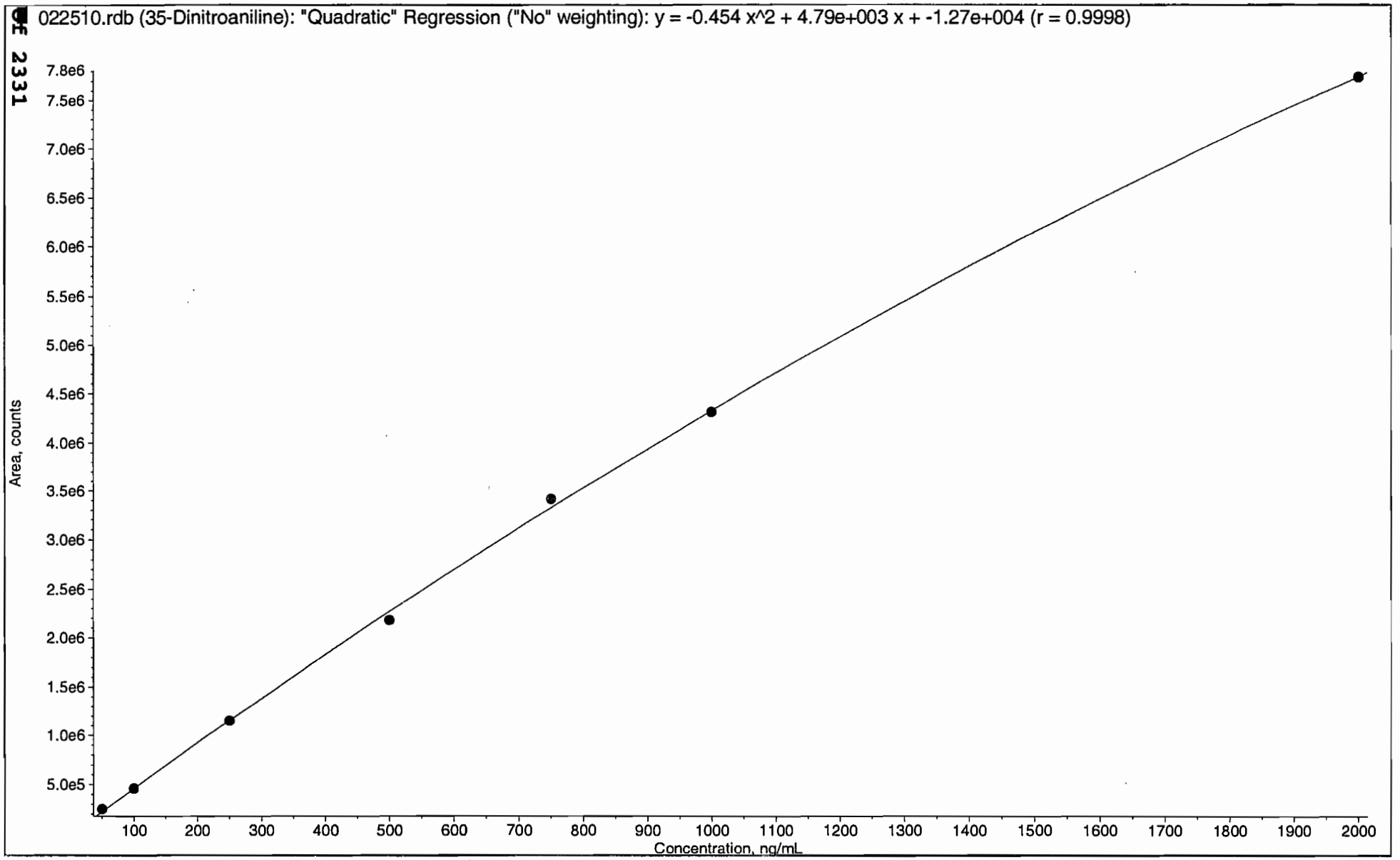

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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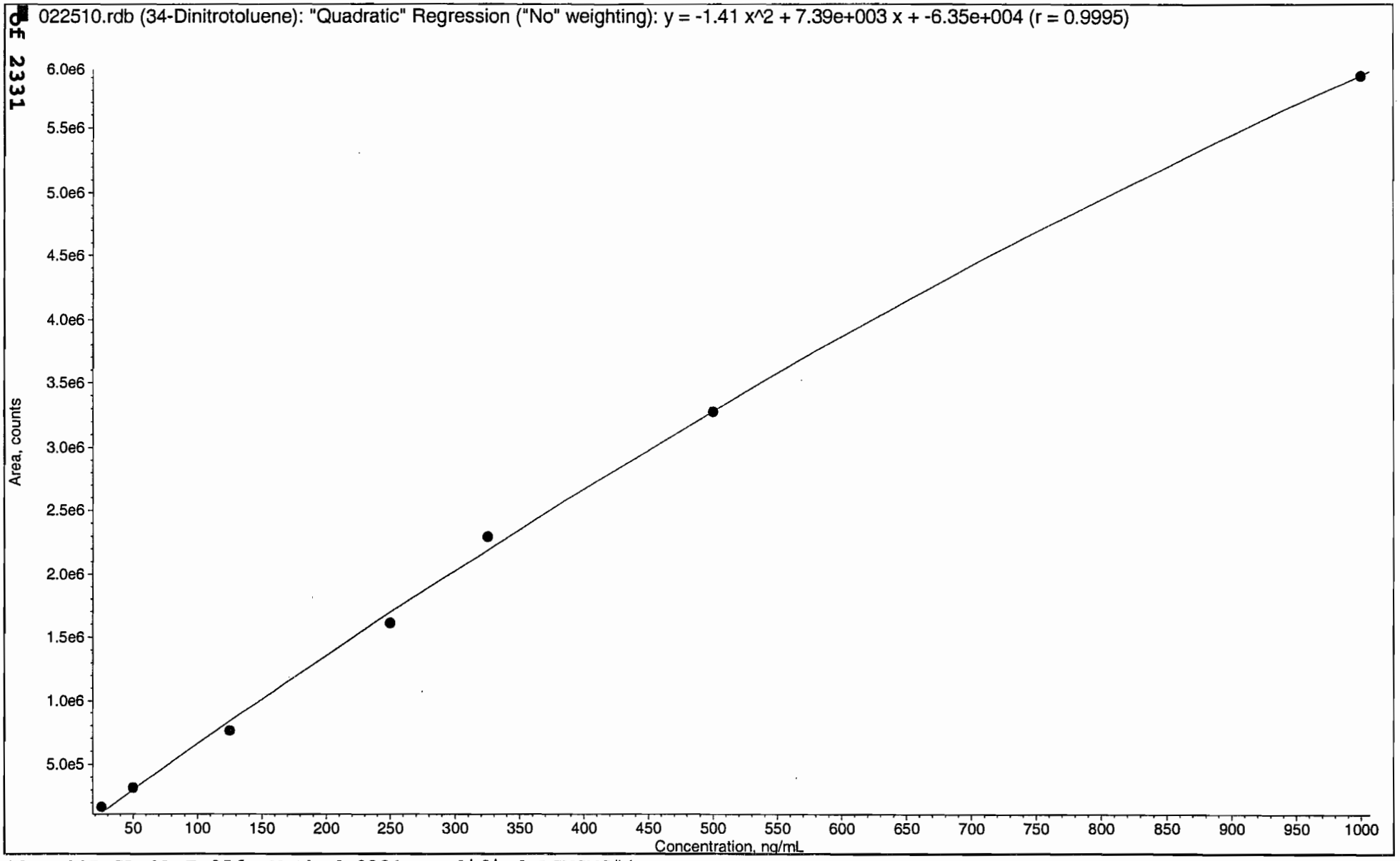

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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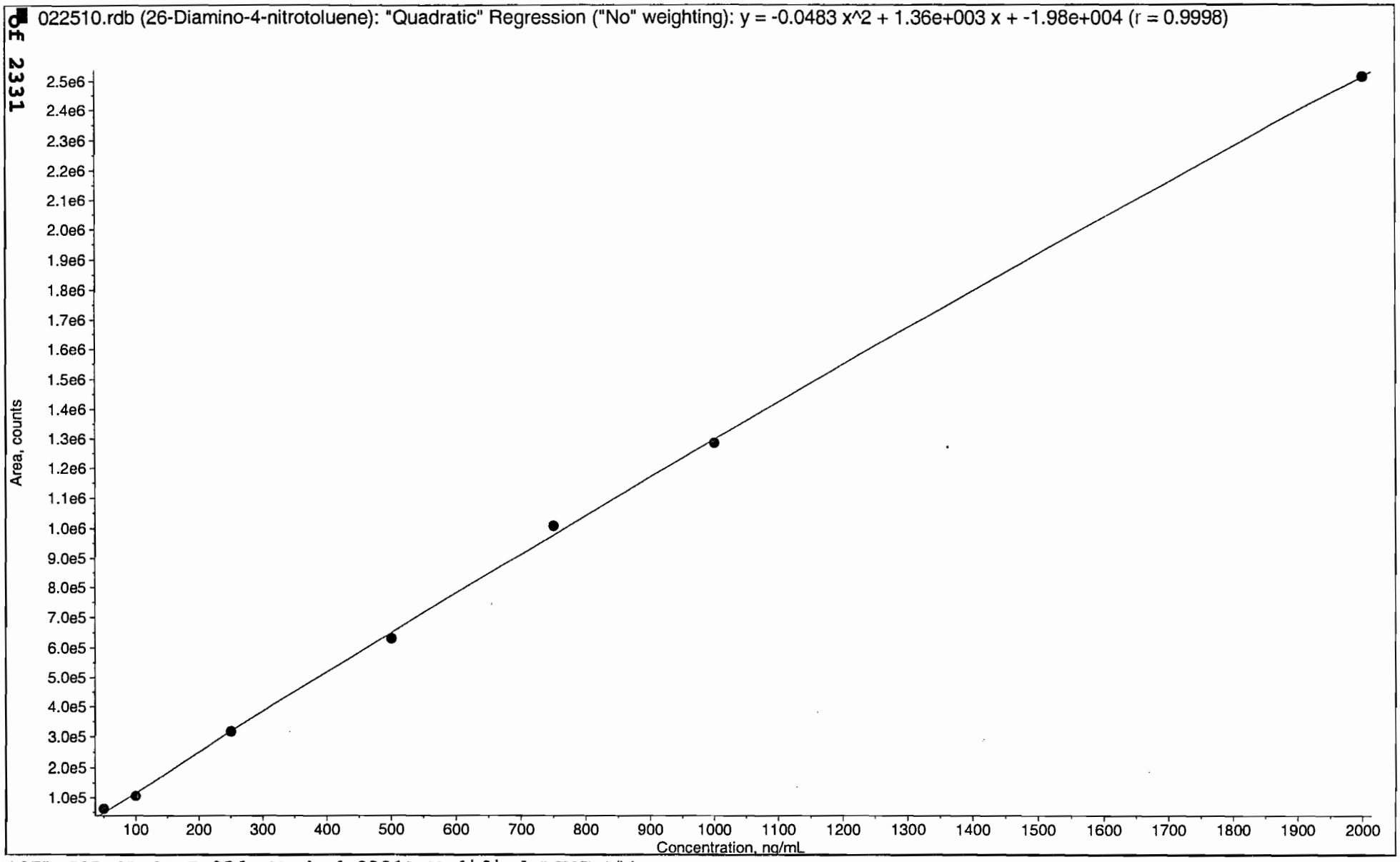

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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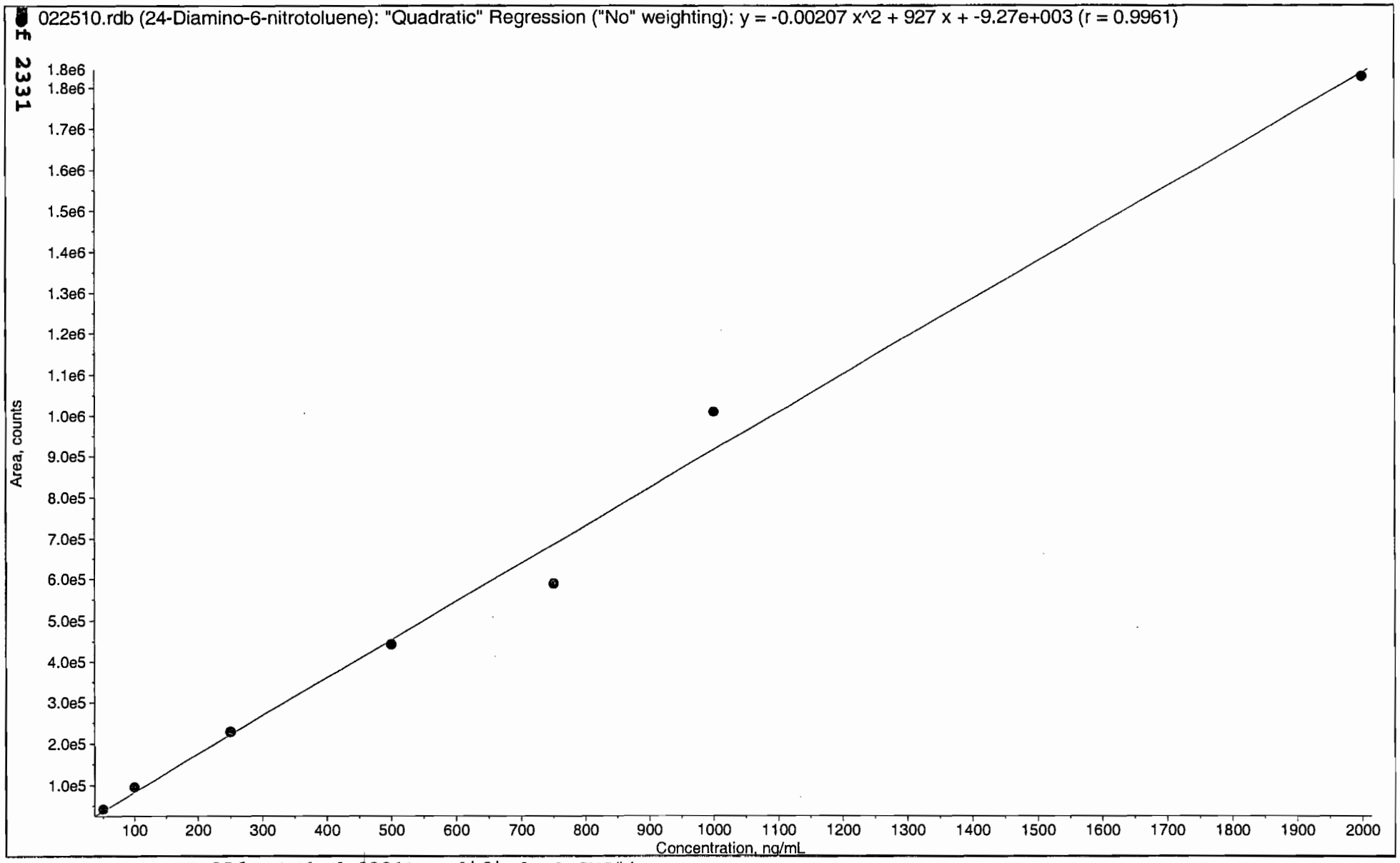

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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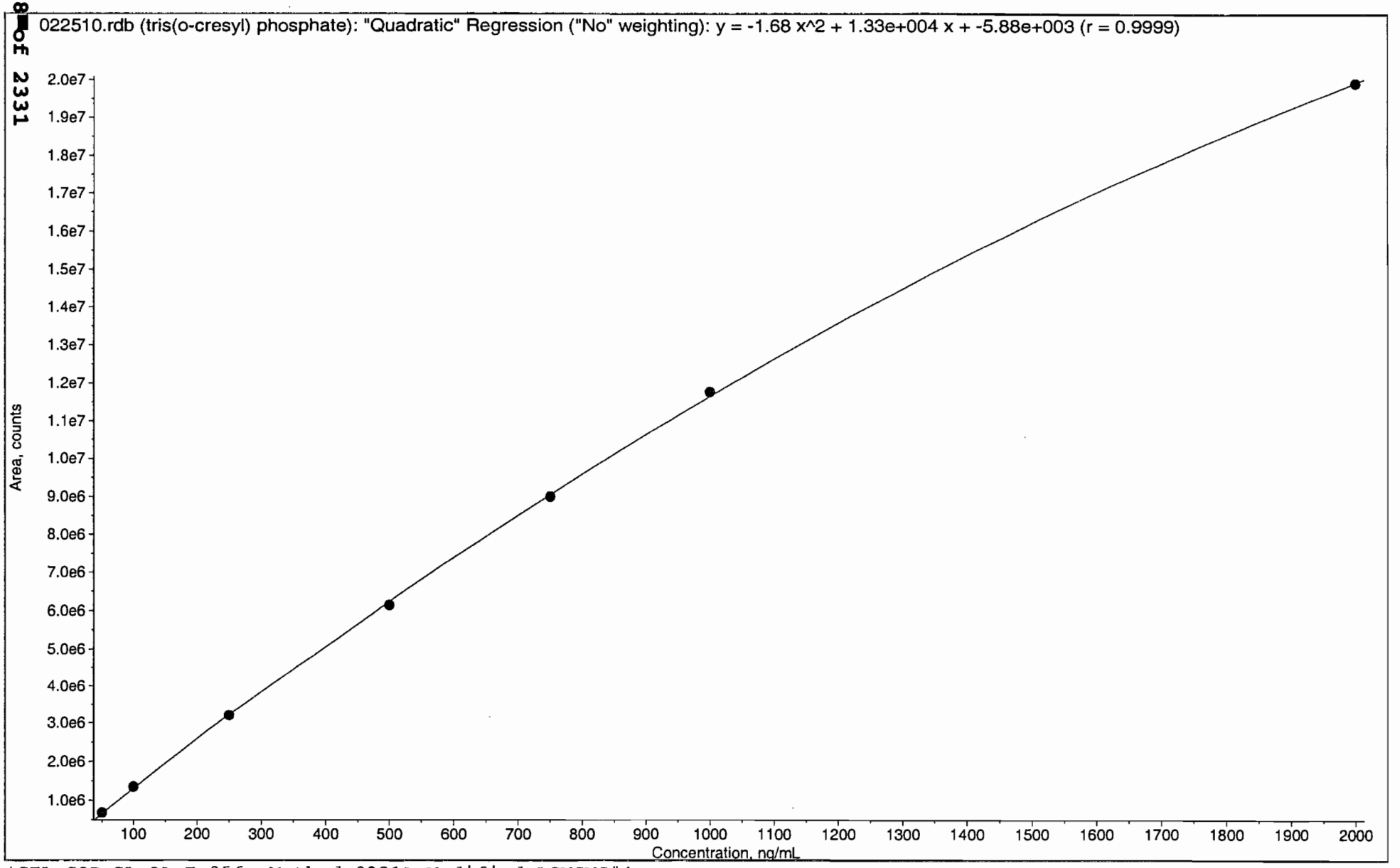

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02250011.wiff

Analysis Date: 25–FEB–10 11:06

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	250	241	97	
3,5–Dinitroaniline	500	484	97	
TATB	500	491	98	
tris(o–cresyl) phosphate	500	503	101	
2,4–Diamino–6–nitrotoluene	500	549	110	
2,6–Diamino–4–nitrotoluene	500	501	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

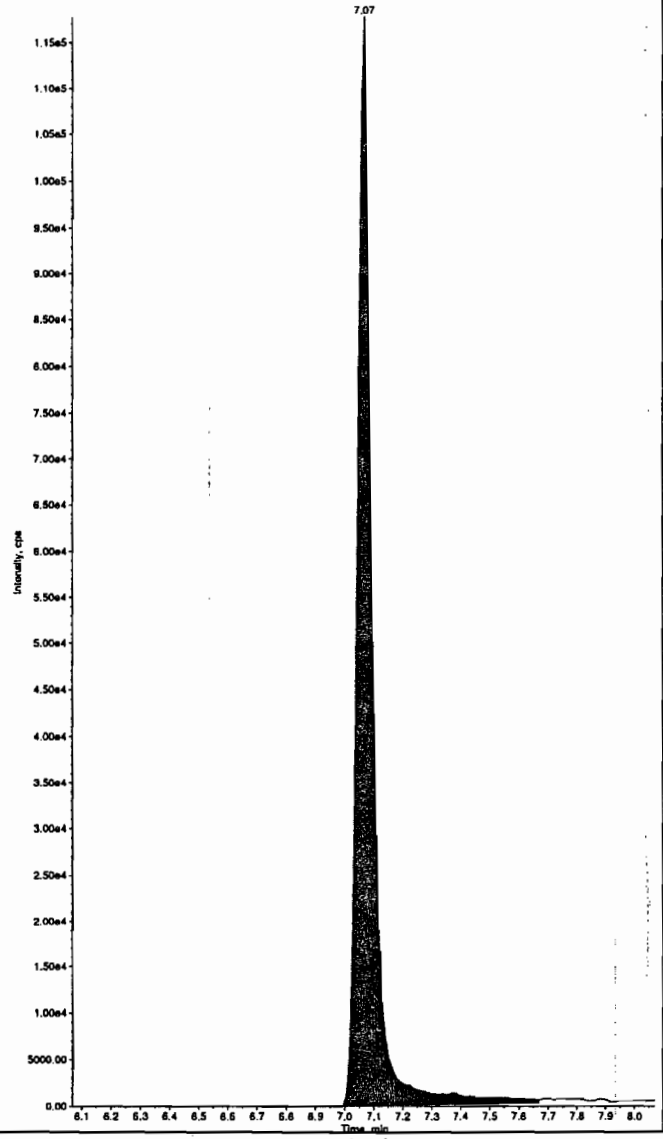
Before Clean 2/26/10

Sample Name: "WXX100225-26ICV" Sample ID: "|1|LER" File: "EXS02250011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:06:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.07 min
Area: 4.60e+005 counts
Height: 117670.265 cps
Start Time: 6.98 min
End Time: 7.67 min

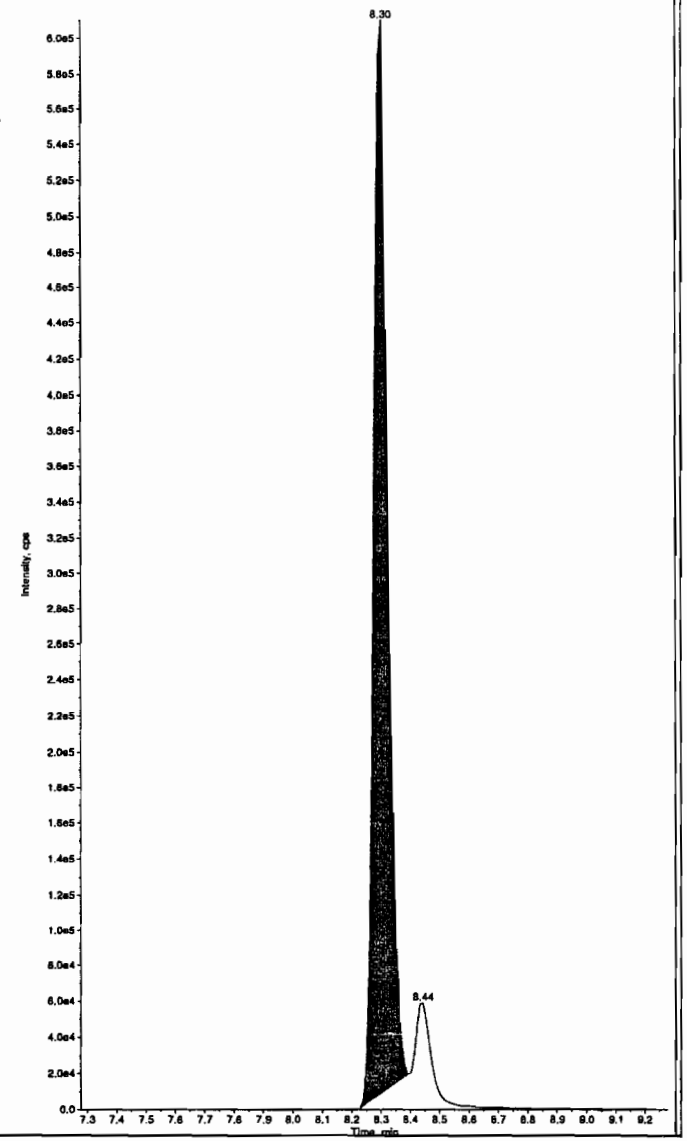


Sample Name: "WXX100225-26ICV" Sample ID: "|1|LER" File: "EXS02250011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 463. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:06:47 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 2.11e+006 counts
Height: 601636.658 cps
Start Time: 8.23 min
End Time: 8.39 min



tmm 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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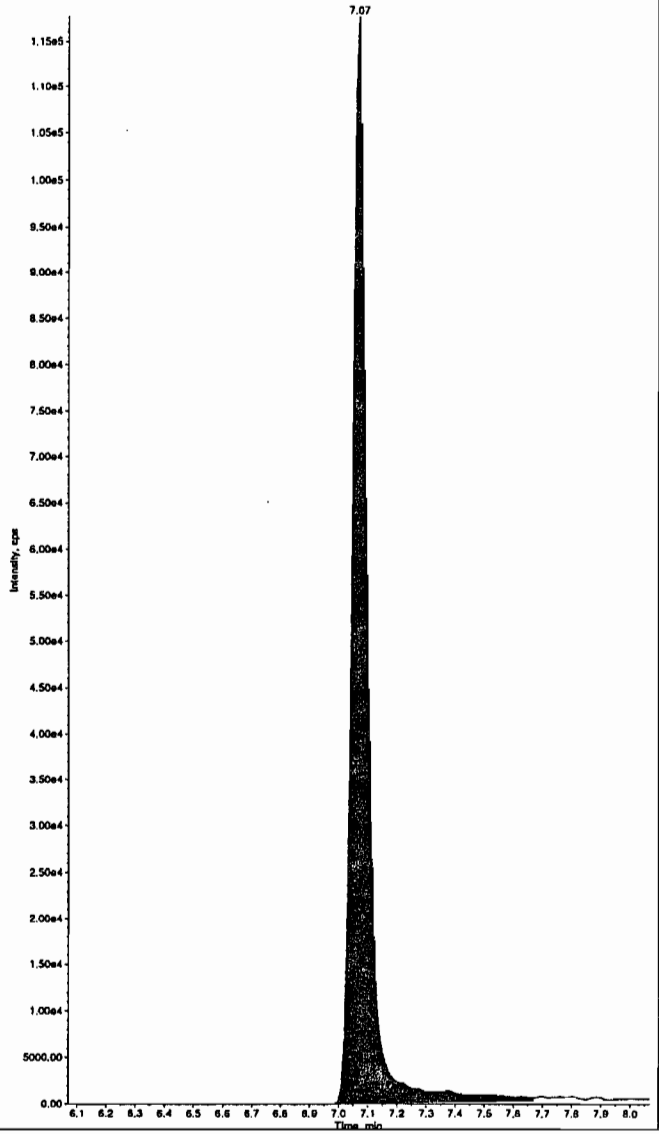
after Scan 2/26/10

Sample Name: "WXX100225-26ICV" Sample ID: "|1|LER" File: "EXS02250011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:06:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.07 min
Area: 4.60e+005 counts
Height: 117670.265 cps
Start Time: 6.98 min
End Time: 7.67 min

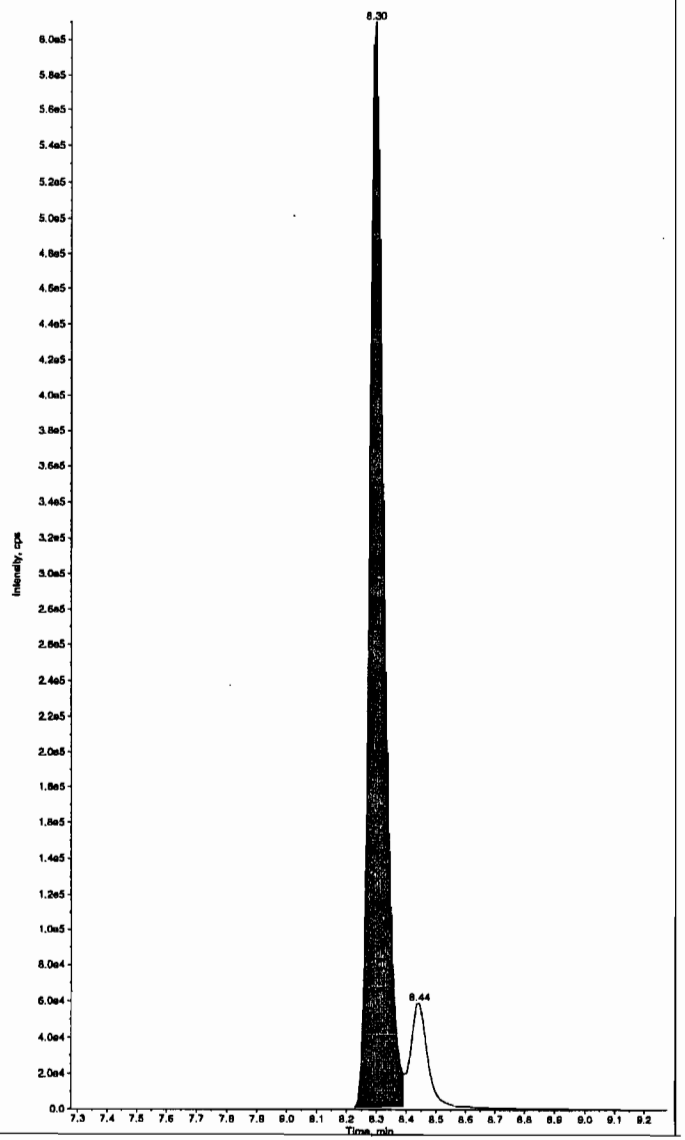


Sample Name: "WXX100225-26ICV" Sample ID: "|1|LER" File: "EXS02250011.wiff"
Peak Name: "35-DInitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 484. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:06:47 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.30 min
Area: 2.20e+006 counts
Height: 613022.974 cps
Start Time: 8.23 min
End Time: 8.39 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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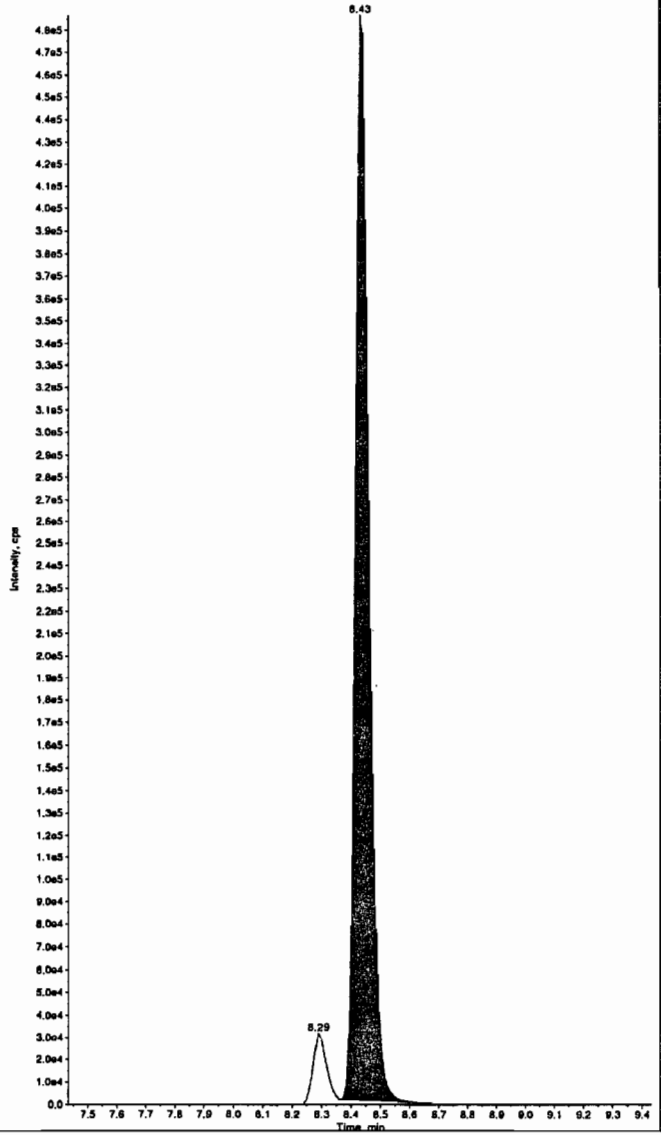
Sample Name: "WXX100225-26ICV" Sample ID: "|1|LER" File: "EXS02250011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 241. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:06:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.43 min
Area: 1.64e+006 counts
Height: 484951.843 cps
Start Time: 8.37 min
End Time: 8.66 min

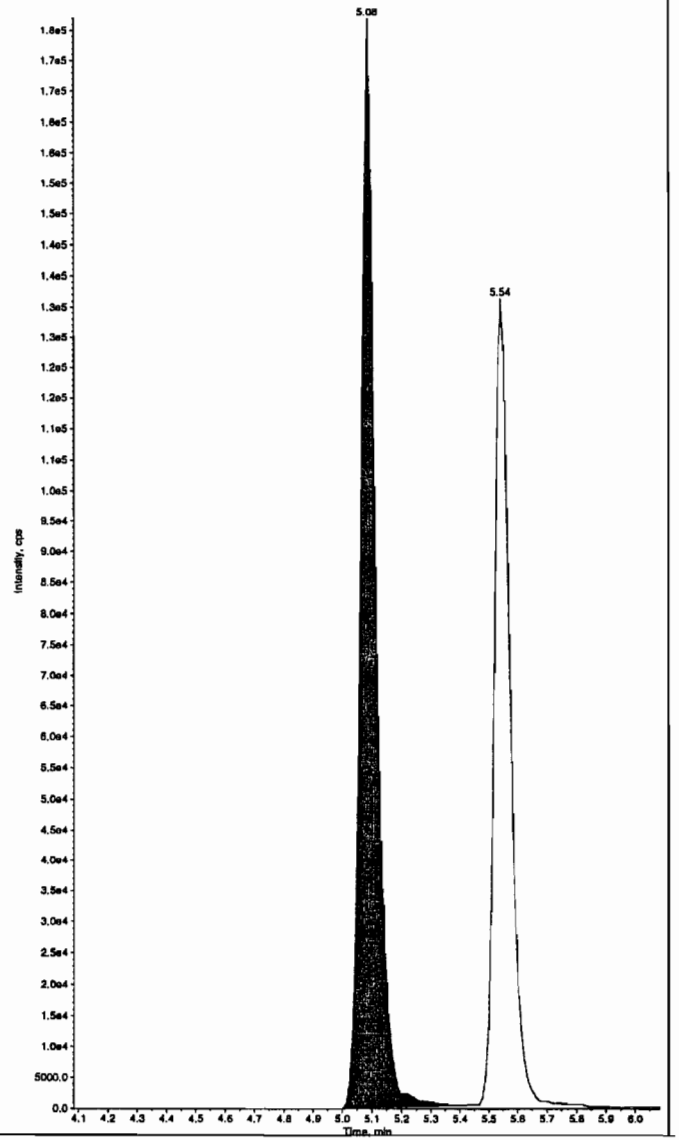


Sample Name: "WXX100225-26ICV" Sample ID: "|1|LER" File: "EXS02250011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:06:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 6.51e+005 counts
Height: 176921.997 cps
Start Time: 4.99 min
End Time: 5.38 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

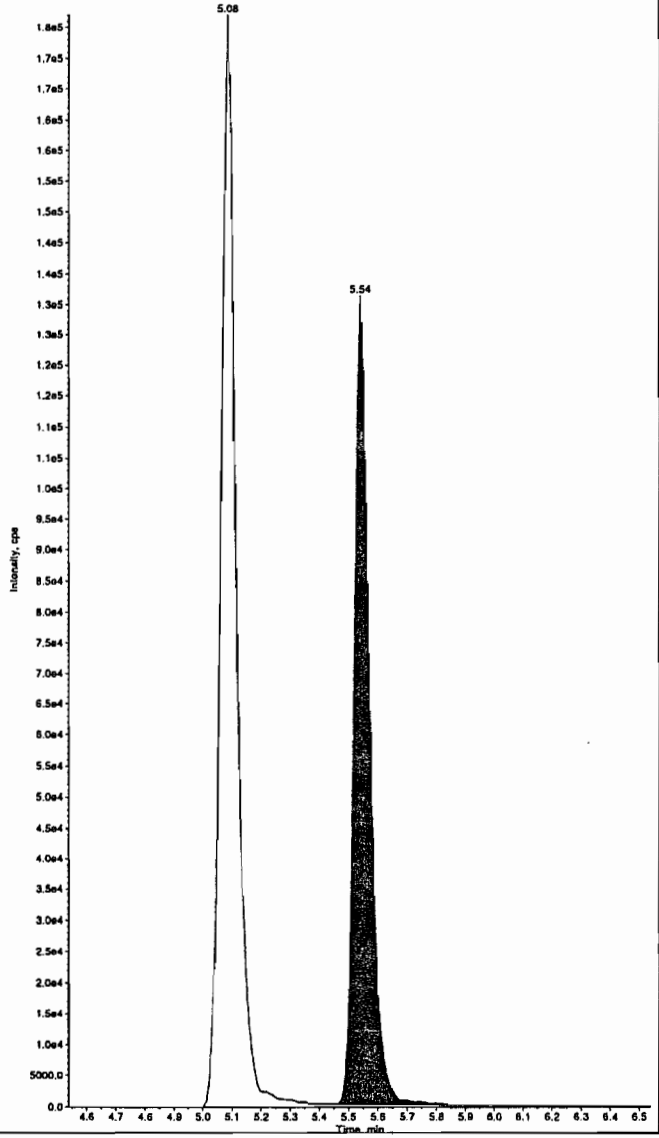
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-26ICV" Sample ID: "[1]LER" File: "EXS02250011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 549. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:06:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.54 min
Area: 5.00e+005 counts
Height: 130863.007 cps
Start Time: 5.46 min
End Time: 5.85 min

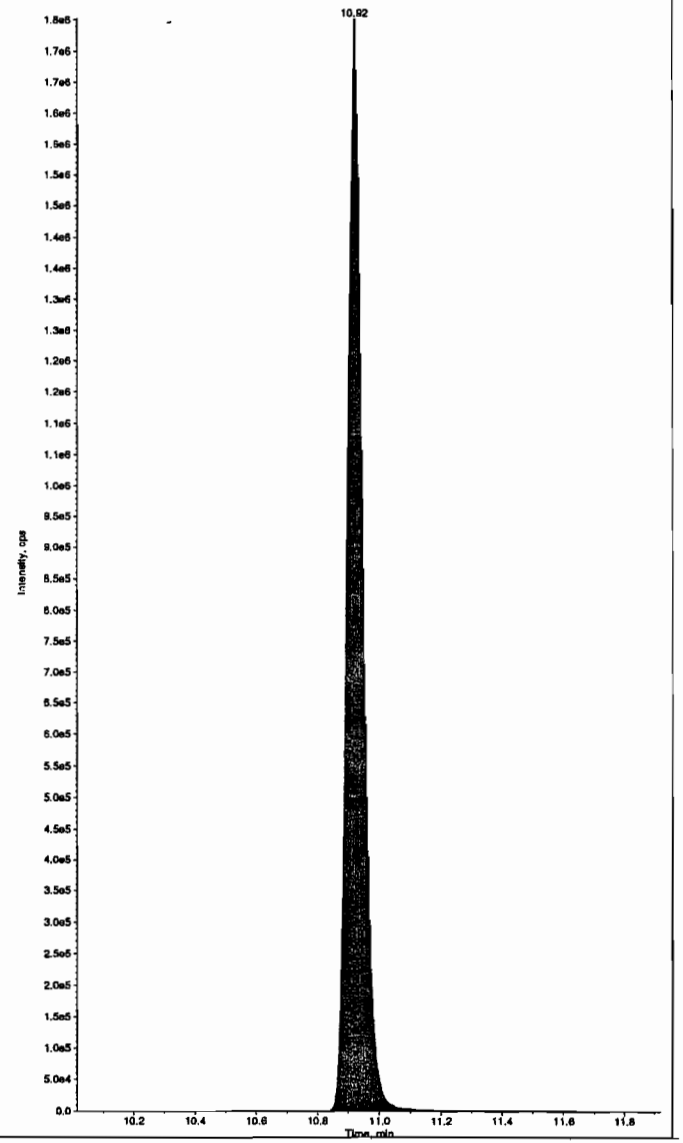


Sample Name: "WXX100225-26ICV" Sample ID: "[1]LER" File: "EXS02250011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 503. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:06:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.27e+006 counts
Height: 1753141.479 cps
Start Time: 10.8 min
End Time: 11.3 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1747

Lab Code: GEL

Run Date: 04-MAR-10,25-FEB-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02260003.wifl	EXS02260004.wifl	EXS02260005.wifl	EXS02260006.wifl	EXS02260007.wifl	EXS02260008.wifl	EXS02260009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	80600	158000	383000	773000	1220000	1610000	3220000	-10100	1620	.001	.9999	
2,6-Diamino-4-nitrotoluene	113000	219000	551000	1070000	1680000	2170000	4260000	-5880	2240	-.055	.9999	
3,4-Dinitrotoluene	365000	719000	1740000	3170000	4890000	6230000	11300000	2650	14600	-3.26	.9979	
3,5-Dinitroaniline	531000	1010000	2370000	4530000	6700000	8310000	13900000	41000	9760	-1.41	.9999	
TATB	50800	103000	279000	574000	909000	1230000	2540000	-18200	1200	.04	.9999	
tris(o-cresyl) phosphate	893000	1730000	4120000	7610000	11100000	14100000	23200000	92000	16500	-2.46	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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022610ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.82e+004			
a1	1.2e+003			
a2	0.0401			

Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	4.1e+004			
a1	9.76e+003			
a2	-1.41			

Correlation coefficient 0.9999
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.65e+003			
a1	1.46e+004			
a2	-3.26			

Correlation coefficient 0.9979
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.88e+003			
a1	2.24e+003			
a2	-0.055			

Correlation coefficient 0.9999
Use Area

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Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

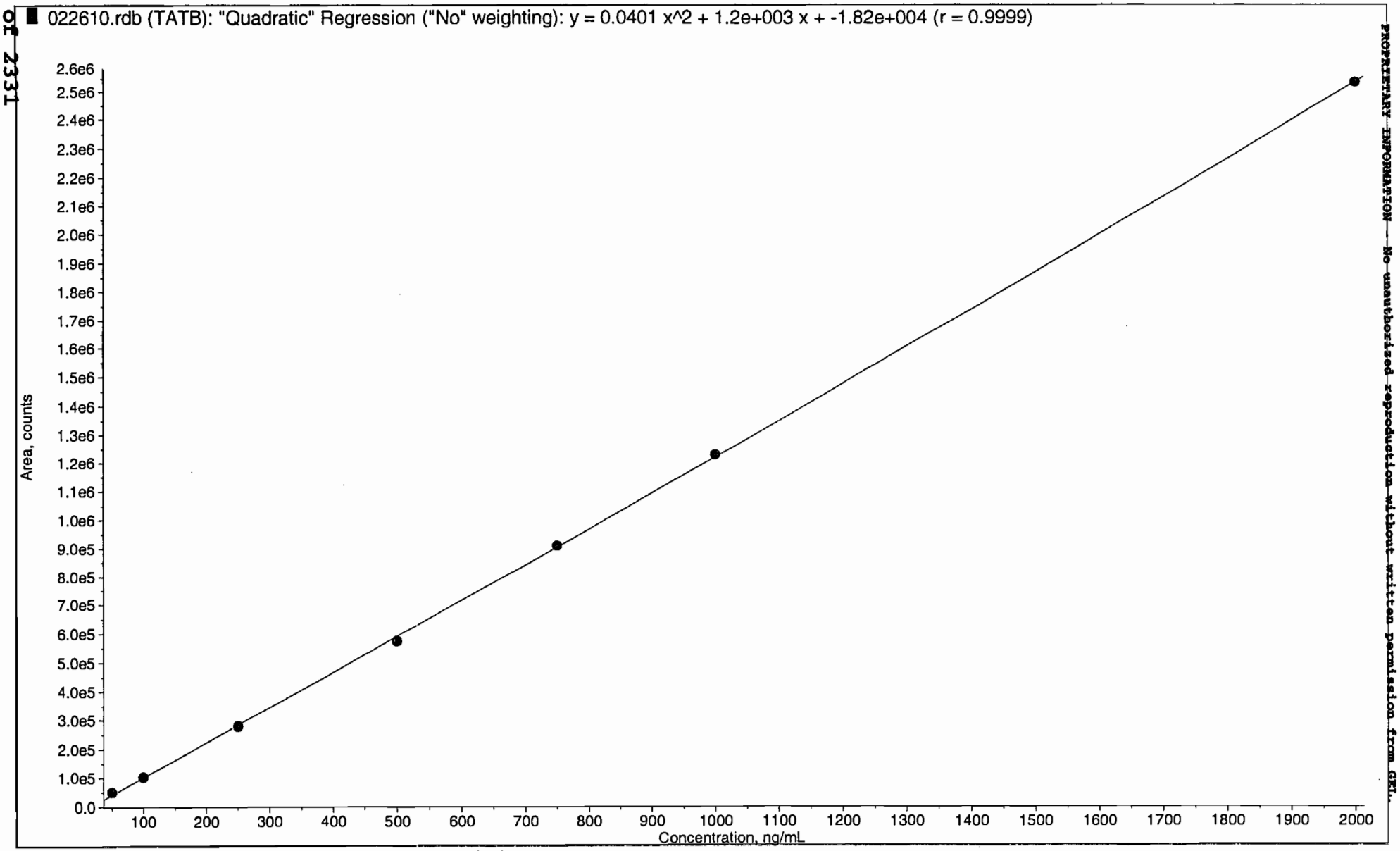
Fit	Quadratic	Weighting	None	Iterate No
a0	-1.01e+004			
a1	1.62e+003			
a2	0.000677			

Correlation coefficient 0.9999
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	9.2e+004			
a1	1.65e+004			
a2	-2.46			

Correlation coefficient 1.0000
Use Area



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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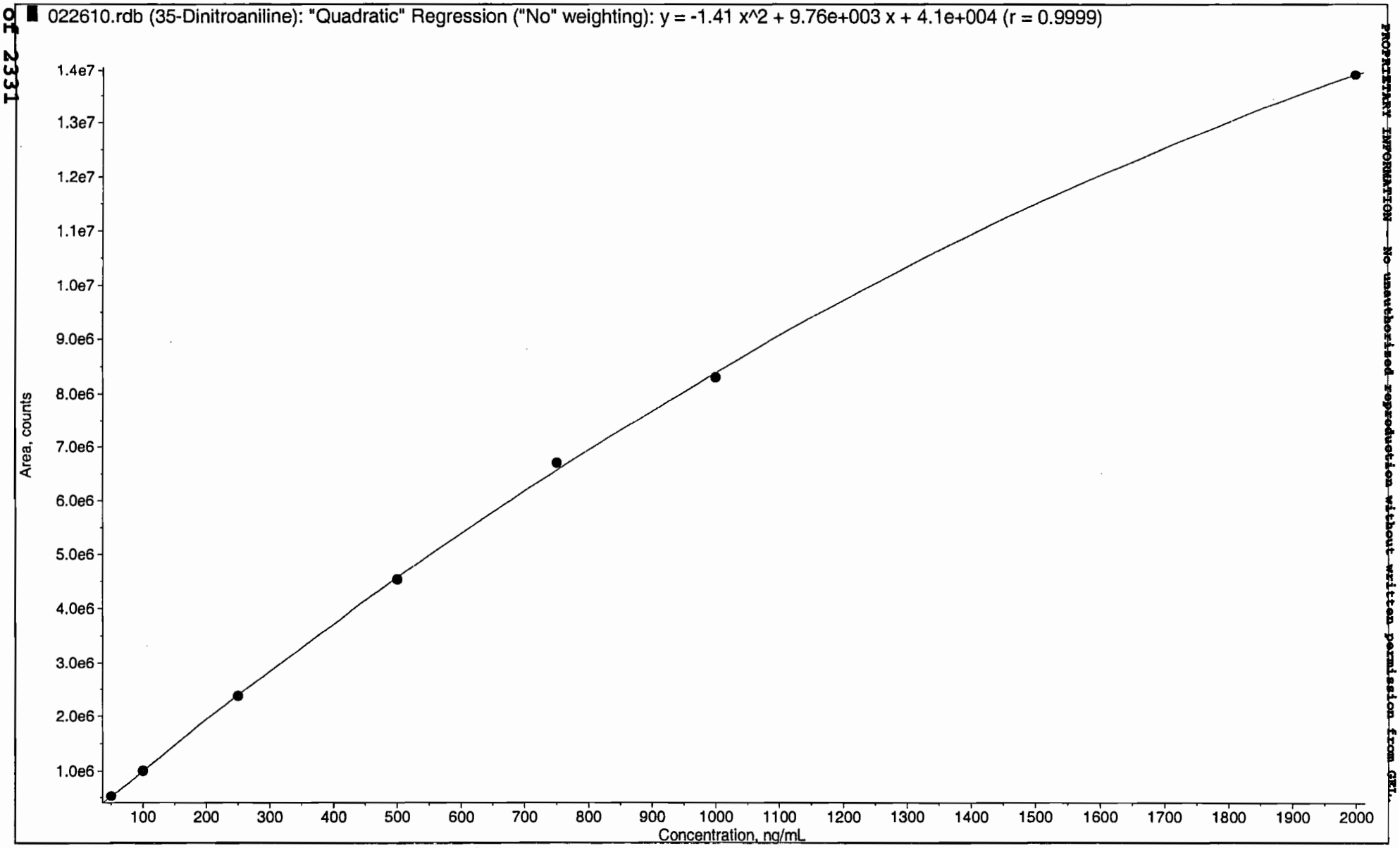

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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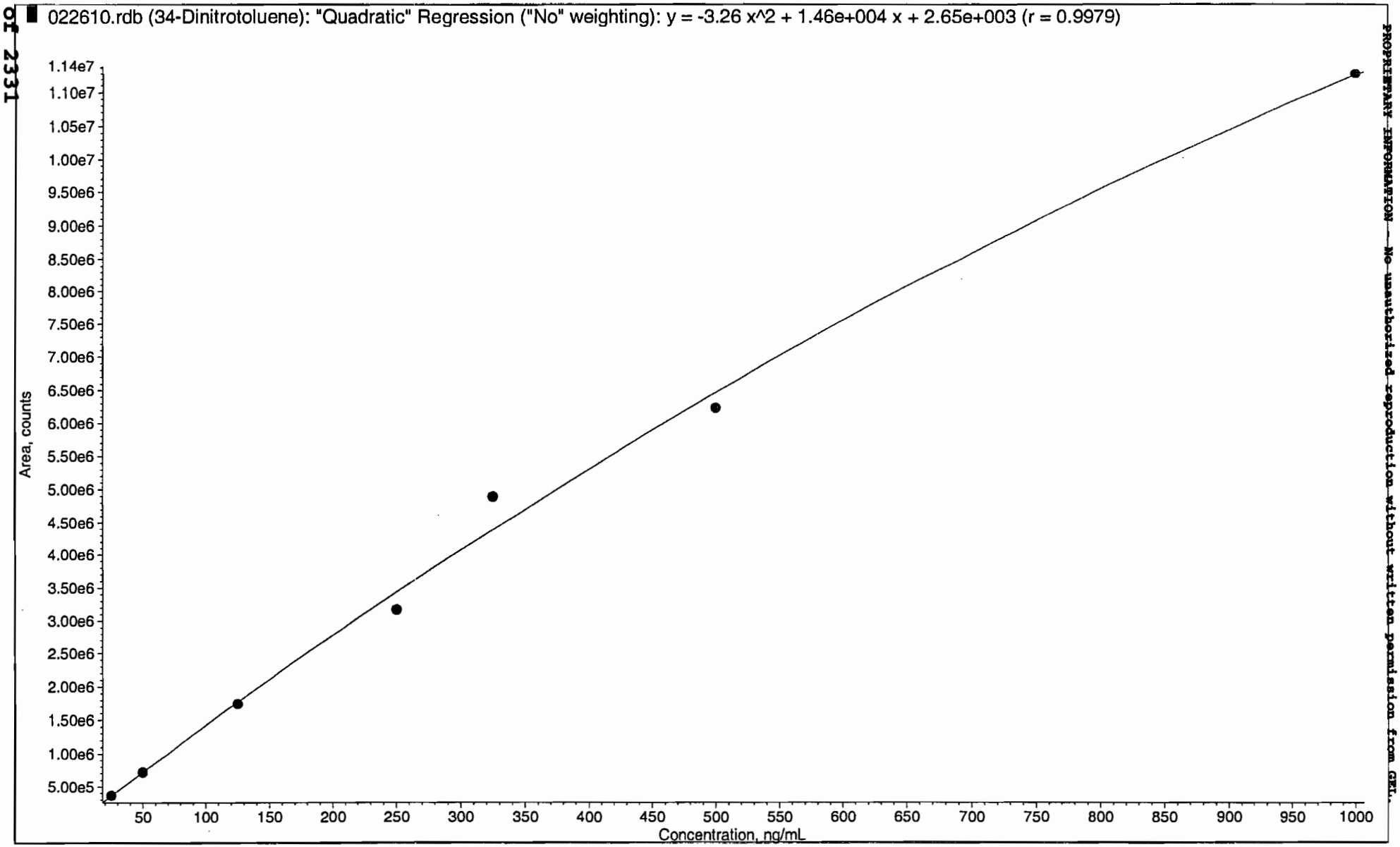

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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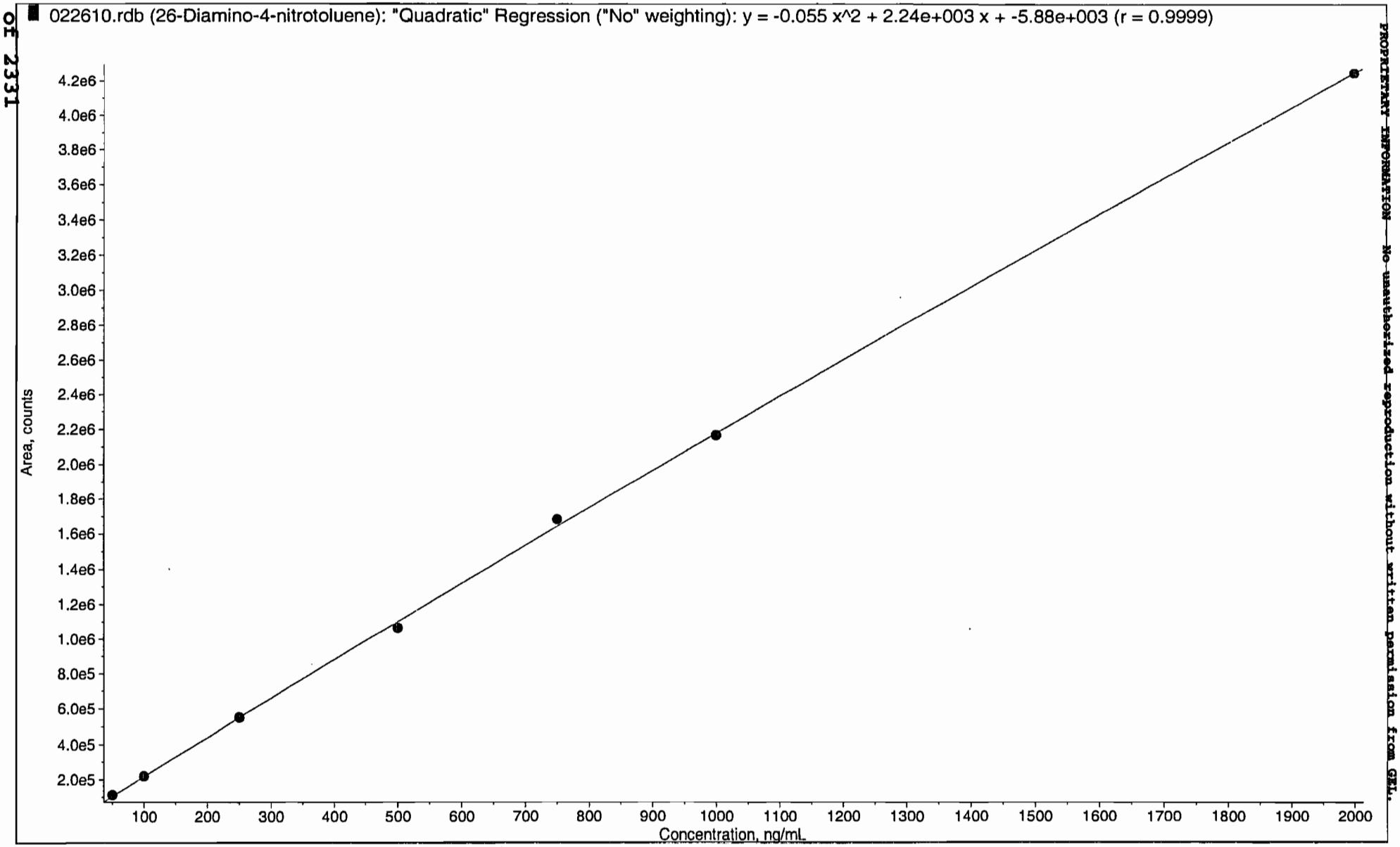

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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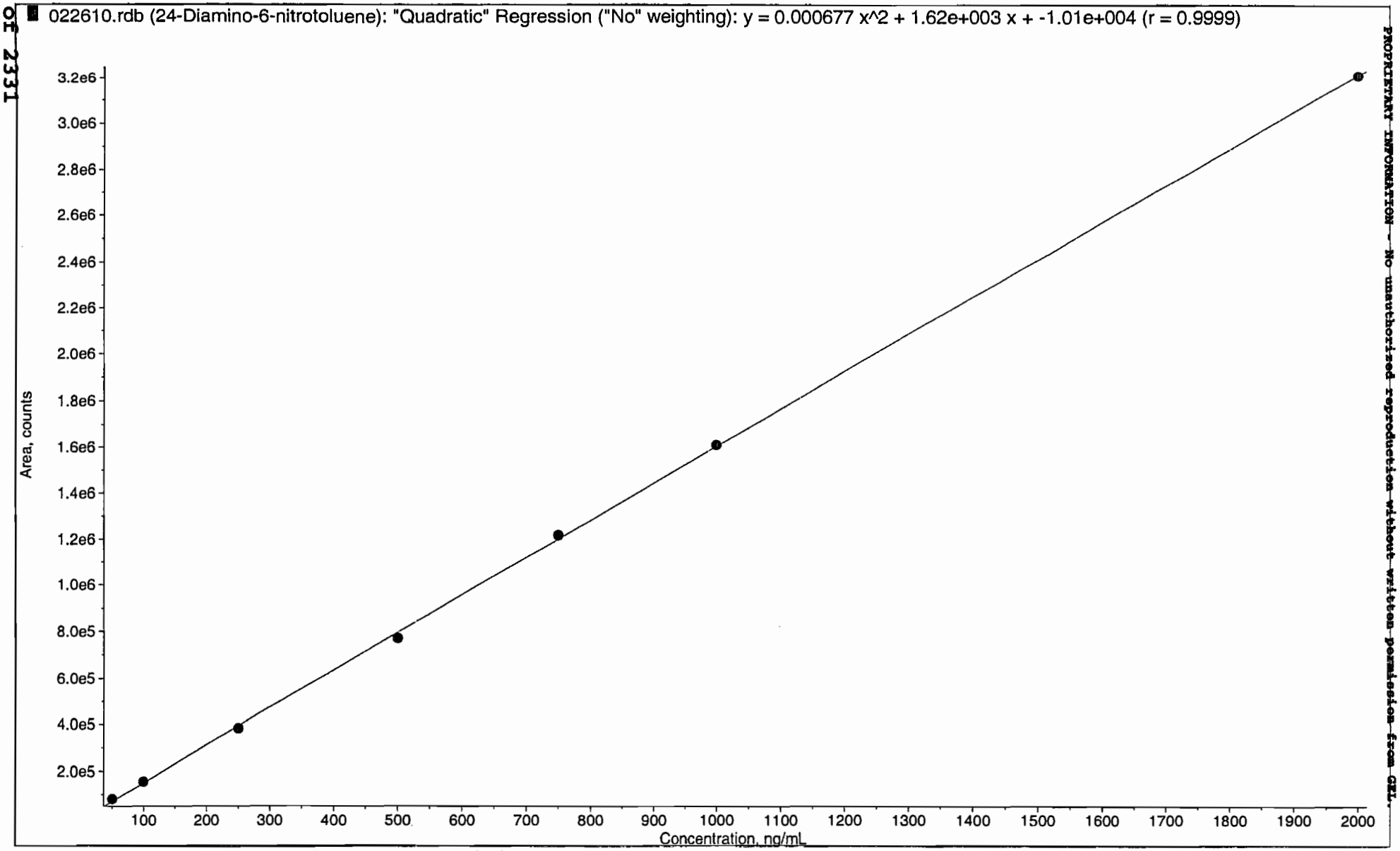

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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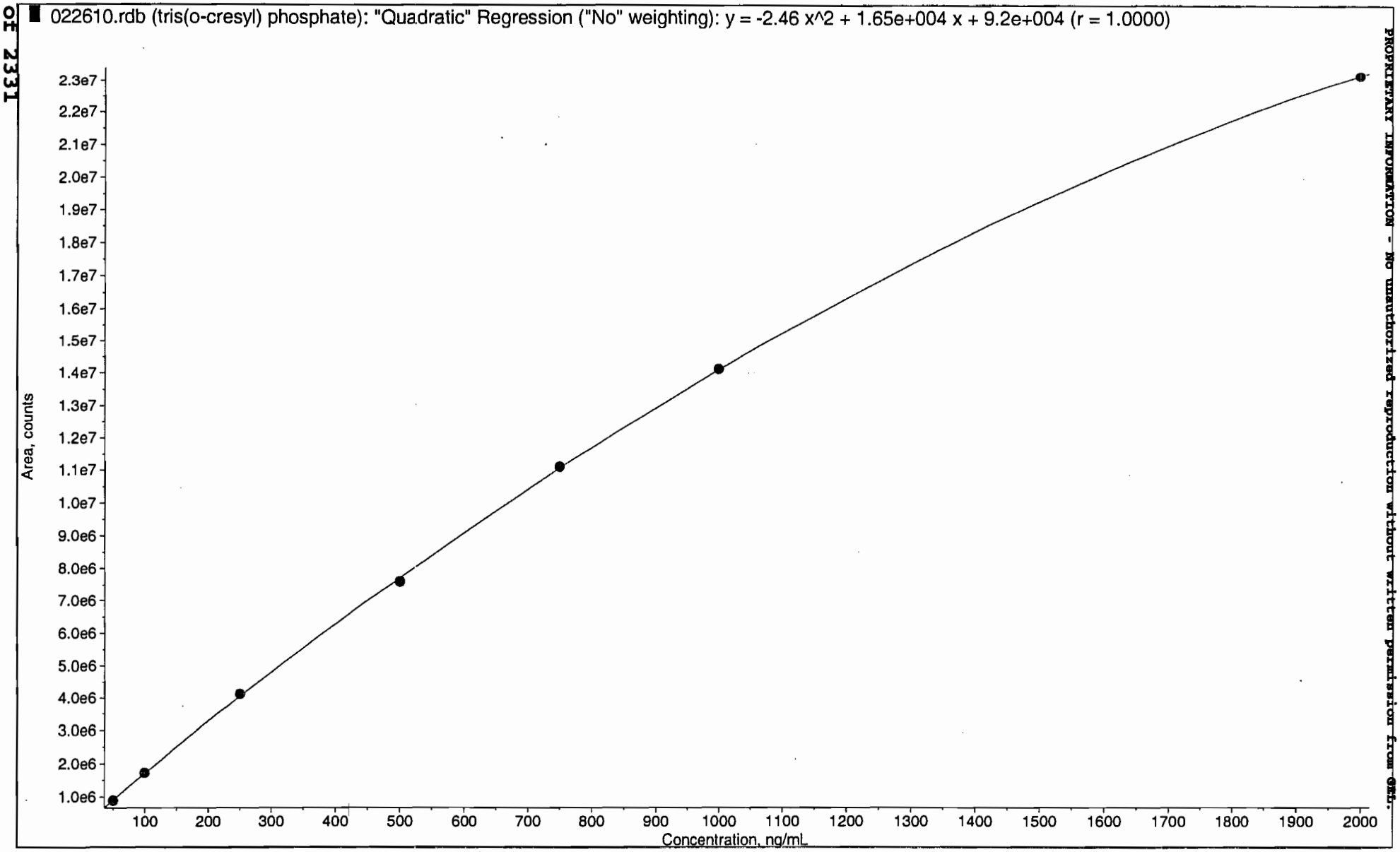

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02260011.wiff

Analysis Date: 26–FEB–10 17:31

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	483	97	
2,6–Diamino–4–nitrotoluene	500	465	93	
3,4–Dinitrotoluene	250	226	90	
3,5–Dinitroaniline	500	474	95	
TATB	500	472	95	
tris(o–cresyl) phosphate	500	494	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

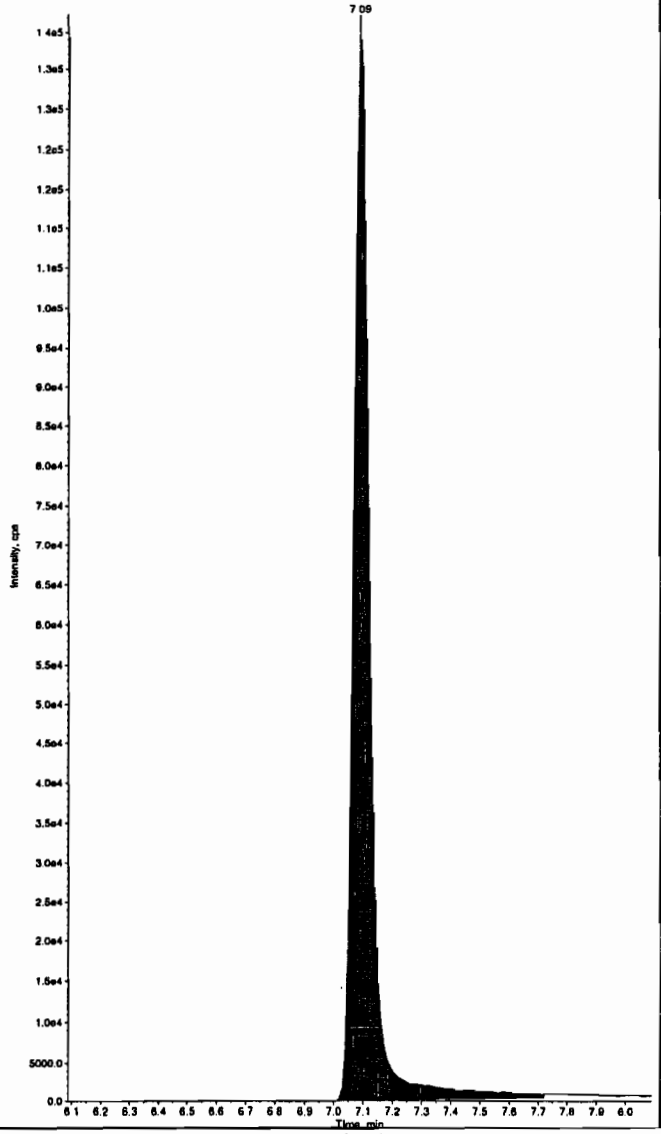
Lar 3/1/10

Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 472. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.09 min
Area: 5.57e+005 counts
Height: 137406.067 cps
Start Time: 7.00 min
End Time: 7.72 min

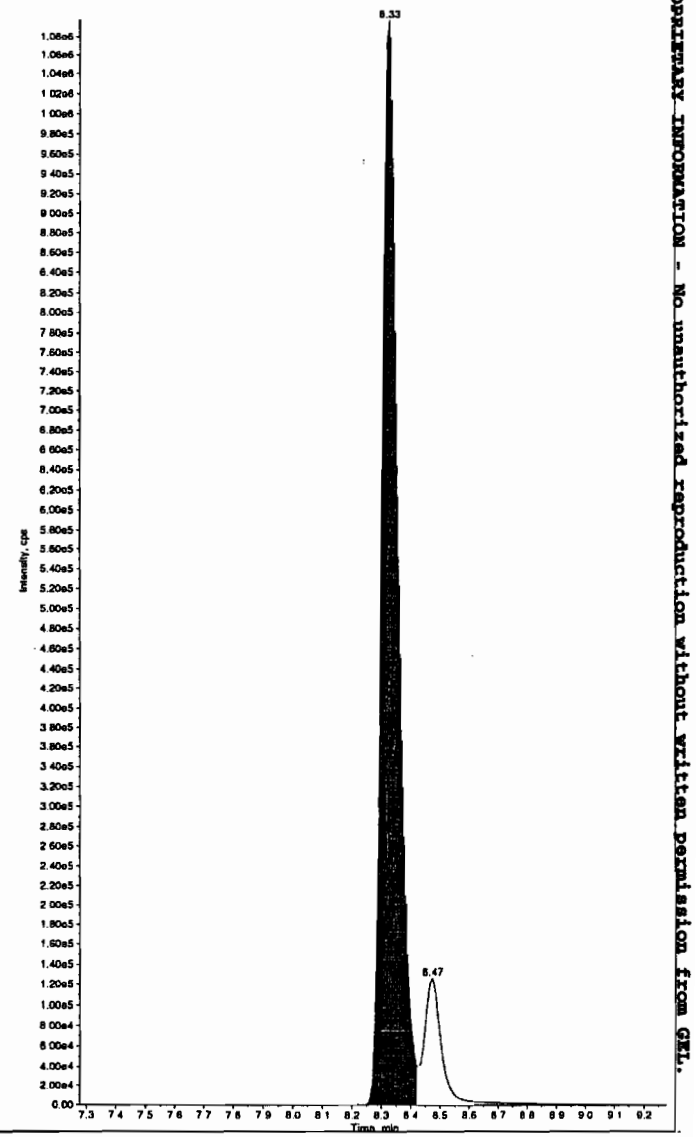


Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 474. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 4.35e+006 counts
Height: 1097292.725 cps
Start Time: 8.24 min
End Time: 8.42 min



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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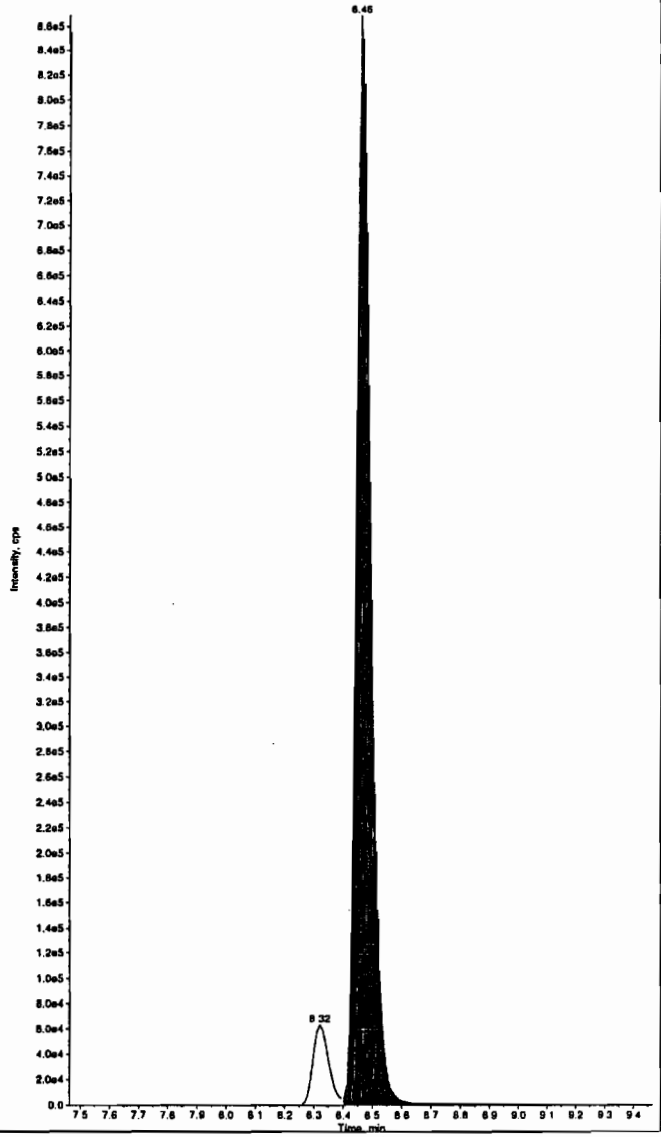
Sample Name: "WXX100226-26ICV" Sample ID: "|1|LER" File: "EXS02260011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 226. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.12e+006 counts
Height: 869437.378 cps
Start Time: 8.40 min
End Time: 8.83 min

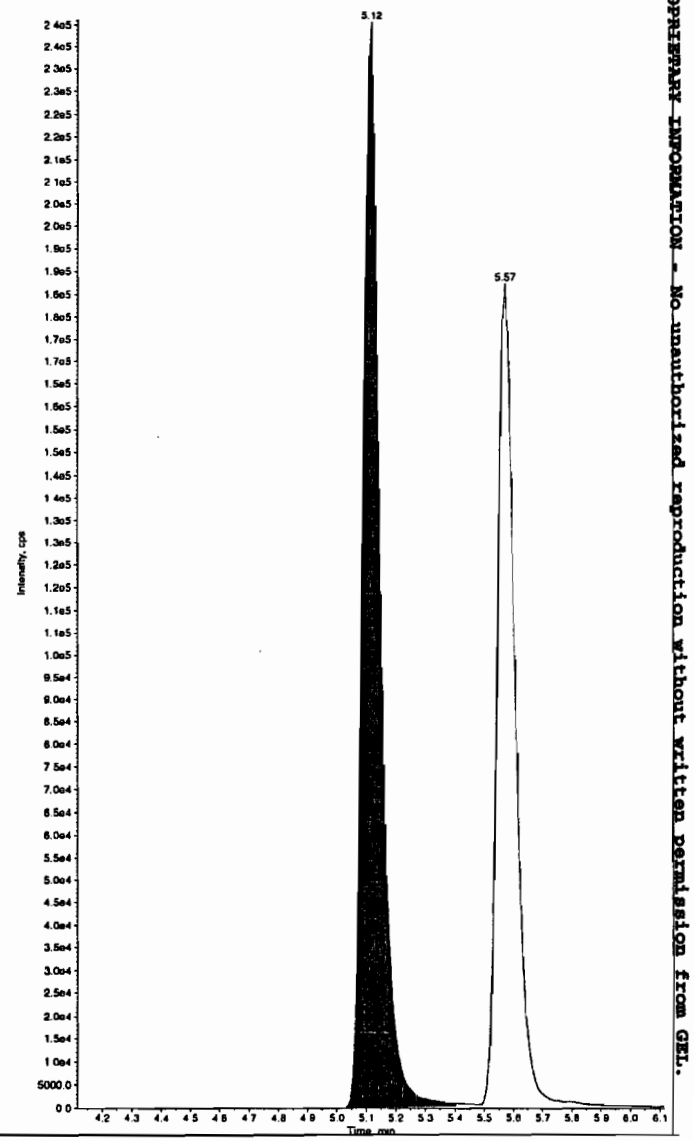


Sample Name: "WXX100226-26ICV" Sample ID: "|1|LER" File: "EXS02260011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 465. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 1.02e+006 counts
Height: 240925.003 cps
Start Time: 5.01 min
End Time: 5.41 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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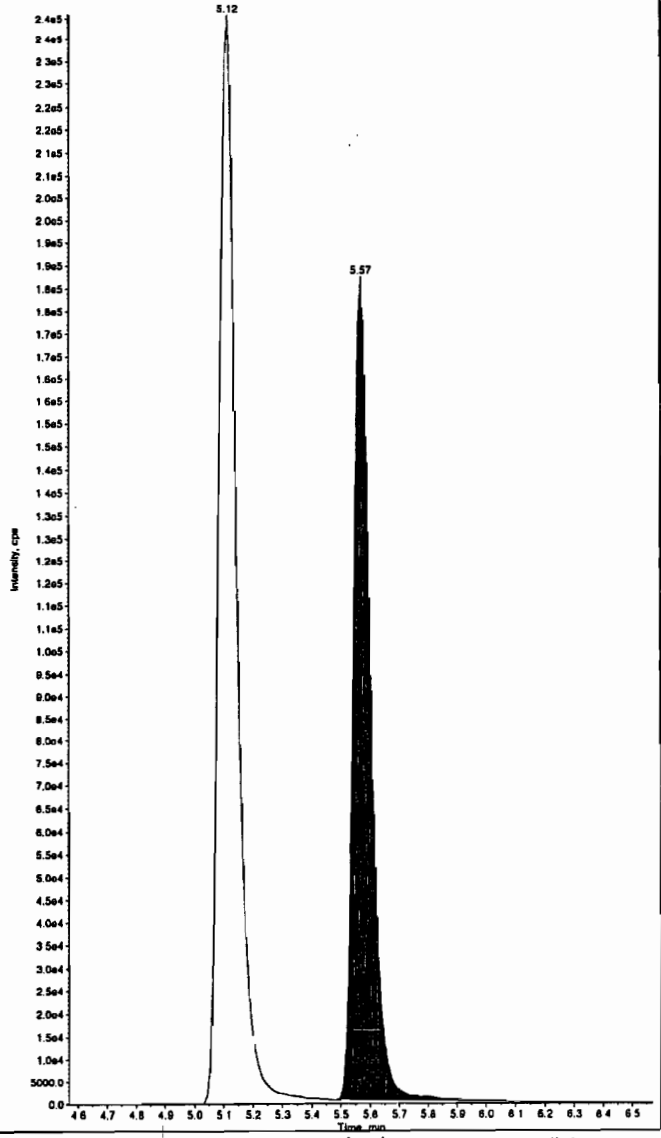
Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.     ng/mL
Calculated Conc:    483.     ng/mL
Acq. Date:       2/26/2010
Acq. Time:       5:31:06 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3       points
RT Window:         30.0     sec
Expected RT:        5.57    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.57    min
Area:        7.72e+005    counts
Height:       182073.196   cps
Start Time:         5.49    min
End Time:           5.92    min
```

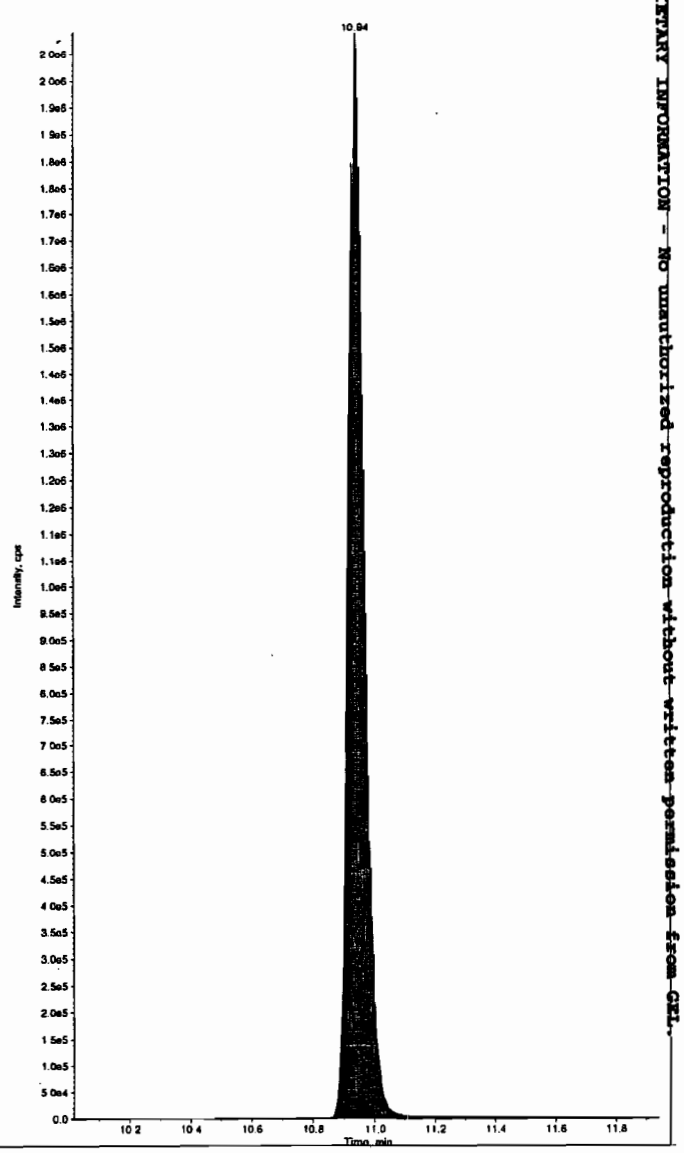


Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.     ng/mL
Calculated Conc:    494.     ng/mL
Acq. Date:       2/26/2010
Acq. Time:       5:31:06 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3       points
RT Window:         30.0     sec
Expected RT:        10.9    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.9    min
Area:        7.63e+006    counts
Height:      2044473.877   cps
Start Time:         10.8    min
End Time:           11.3    min
```



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304012a

Analysis Date: 04–MAR–10 20:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	52.132	130	*
1,3–Dinitrobenzene–d4	500	502.653	101	
2,4,6–Trinitrotoluene	40	43.716	109	
2,4–Dinitrotoluene	40	42.515	106	
2,6–Dinitrotoluene	40	39.781	99	
2,6–Dinitrotoluene–d3	500	509.301	102	
2–Amino–4,6–dinitrotoluene	40	37.902	95	
3,4–Dinitrotoluene	20	19.742	99	
4–Amino–2,6–dinitrotoluene	40	33.746	84	
HMX	40	42.046	105	
Nitrobenzene	40	43.151	108	
PETN	40	43.178	108	
RDX	40	41.86	105	
Tetryl	40	46.154	115	
m–Dinitrobenzene	40	46.893	117	
m–Nitrotoluene	40	38.785	97	
o–Nitrotoluene	40	39.894	100	
p–Nitrotoluene	40	32.889	82	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

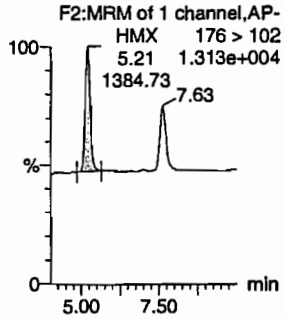
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

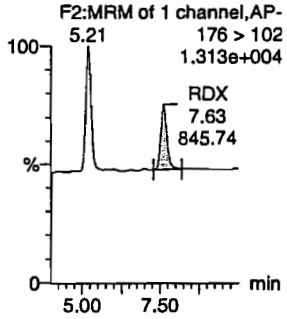
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304012a
Date: 04-Mar-2010
Time: 20:40:53
ID: WXX100304-08CRI
Vial: 1:1,C

MMT 3/6/10

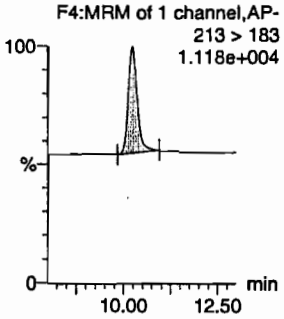
HMX



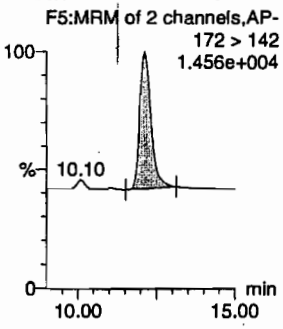
RDX



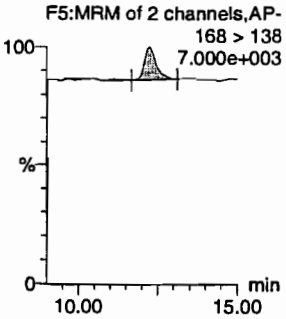
135-Trinitrobenzene



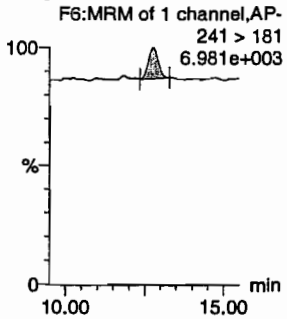
13-Dinitrobenzene-d4



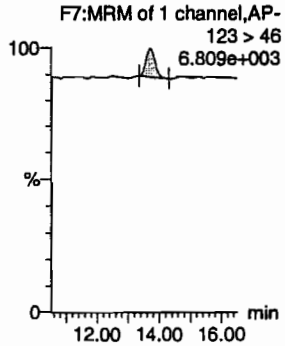
13-Dinitrobenzene



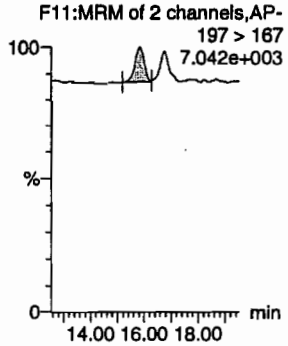
Tetryl



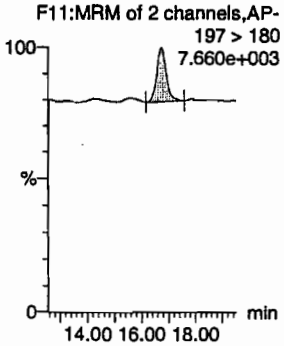
Nitrobenzene



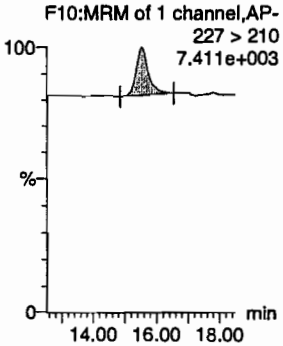
4-Amino-26-dinitrotoluene



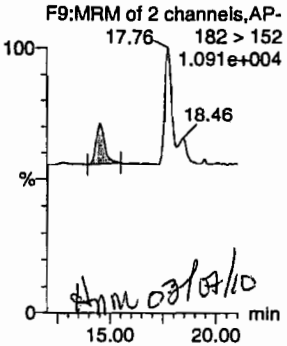
2-Amino-46-dinitrotoluene



246-Trinitrotoluene

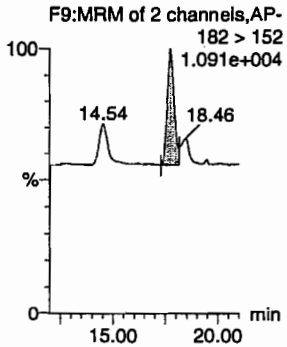


34-dinitrotoluene



MM 03/07/10

26-dinitrotoluene



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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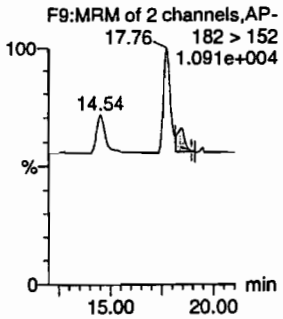
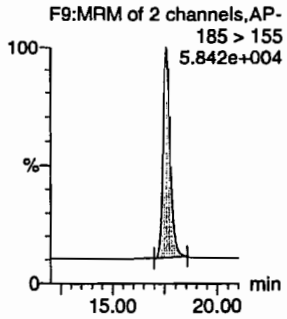
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

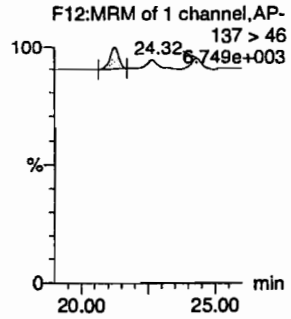
24-dinitrotoluene



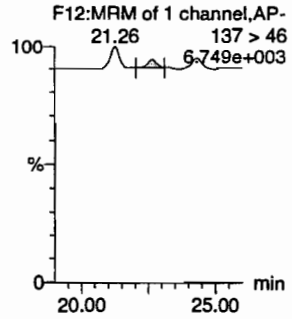
26-dinitrotoluene-d3



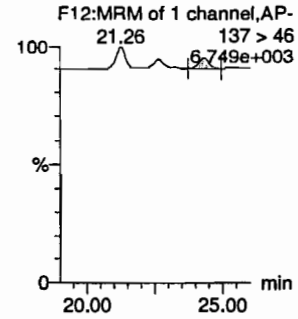
2-Nitrotoluene



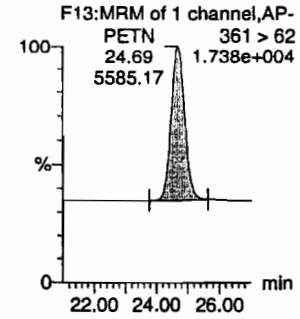
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.21	1384.730	3530.423	1384.730	196.114	bb			42.0457	105.1	5.1	144.1
WXX100304-08CRI	RDX	176 > 102	7.63	845.744	3530.423	845.744	119.779	bb			41.8604	104.7	4.7	75.2
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1433.303	3530.423	1433.303	202.993	bb			52.1322	130.3	30.3	167.6
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.13	3530.423		3530.423	3530.423	bb			502.6531	100.5	0.5	557.7
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.24	419.332	3530.423	419.332	59.388	bb			46.8931	117.2	17.2	49.7
WXX100304-08CRI	Tetryl	241 > 181	12.80	331.609	3530.423	331.609	46.964	bb			46.1544	115.4	15.4	33.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.70	251.584	3530.423	251.584	35.631	bb			43.1505	107.9	7.9	26.0
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.85	389.877	20943.066	389.877	9.308	MM	05-Mar-10	10:05:44	33.7458	84.4	-15.6	20.6
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.72	643.123	20943.066	643.123	15.354	bb			37.9017	94.8	-5.2	59.0
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.54	601.715	20943.066	601.715	14.365	bb			43.7163	109.3	9.3	34.7
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.54	799.203	20943.066	799.203	19.080	bb			19.7424	98.7	-1.3	67.9
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.76	1858.792	20943.066	1858.792	44.377	MM	05-Mar-10	10:10:03	39.7809	99.5	-0.5	195.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.46	490.874	20943.066	490.874	11.719	MM	05-Mar-10	10:13:43	42.5154	106.3	6.3	42.9
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.59	20943.066		20943.066	20943.066	bb			509.3014	101.9	1.9	2489.6
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.26	258.838	20943.066	258.838	6.180	bb			39.8942	99.7	-0.3	72.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.65	105.073	20943.066	105.073	2.509	bb			32.8885	82.2	-17.8	28.3
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.32	153.282	20943.066	153.282	3.659	bb			38.7845	97.0	-3.0	37.4
WXX100304-08CRI	PETN	361 > 62	24.69	5585.170	20943.066	5585.170	133.342	bb			43.1775	107.9	7.9	1559.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/04/10
Time of Injection	2040
Standard Number	WXX100304-08CRI
Data File	EXP0304012a

HMX	105.1
RDX	104.7
135-TNB	130.3
13-DNB	117.2
Tetryl	115.4
Nitrobenzene	107.9
4A-26-DNT	84.4
2A-46-DNT	94.8
246-TNT	109.3
34-DNT(surr)	98.7
26-DNT	99.5
24-DNT	106.3
2-NT	99.7
4-NT	82.2
3-NT	97.0
PETN	107.9
Total	1660.4
Average	103.8

3/6/10

Hmm 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304023a

Analysis Date: 05-MAR-10 02:05

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	582.184	97	
1,3-Dinitrobenzene-d4	500	523.805	105	
2,4,6-Trinitrotoluene	600	735.028	123	*
2,4-Dinitrotoluene	600	602.974	100	
2,6-Dinitrotoluene	600	603.708	101	
2,6-Dinitrotoluene-d3	500	475.367	95	
2-Amino-4,6-dinitrotoluene	600	849.542	142	*
3,4-Dinitrotoluene	300	364.434	121	*
4-Amino-2,6-dinitrotoluene	600	789.715	132	*
HMX	600	677.366	113	
Nitrobenzene	600	653.257	109	
PETN	600	714.882	119	
RDX	600	797.625	133	*
Tetryl	600	672.594	112	
m-Dinitrobenzene	600	619.329	103	
m-Nitrotoluene	600	614.199	102	
o-Nitrotoluene	600	660.057	110	
p-Nitrotoluene	600	704.198	117	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304023a
Date: 05-Mar-2010
Time: 02:05:17
ID: WXX100304-07CCV
Vial: 1:1,B

MMP 3/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.235e+005
7.62

RDX
F2:MRM of 1 channel,AP-
5.20
176 > 102
1.235e+005
RDX
7.62
16793.25

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.574e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.514e+004
10.08

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.128e+004

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.77
5035.79
241 > 181
2.044e+004

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.758e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.763e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
4.167e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.868e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.75
182 > 152
8.070e+004
18.40

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.070e+004
14.51
18.40

THM 03/07/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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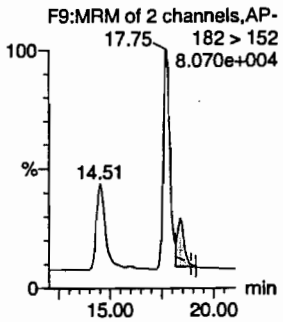
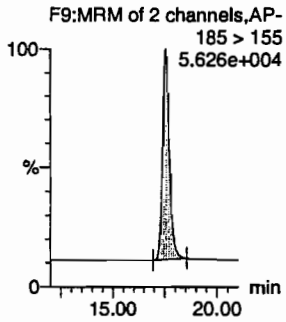
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

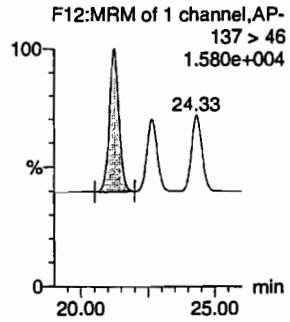
24-dinitrotoluene



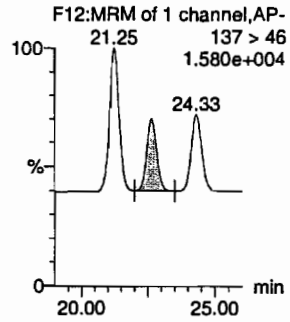
26-dinitrotoluene-d3



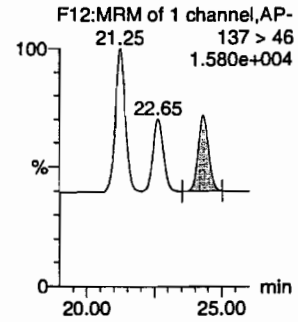
2-Nitrotoluene



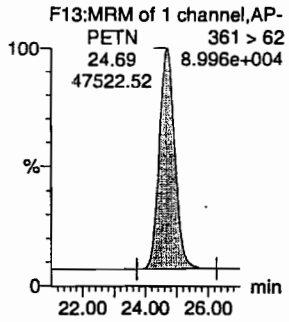
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.20	23247.100	3678.984	23247.100	3159.446	bb			677.3665	112.9	12.9	2560.3
WXX100304-07CCV	RDX	176 > 102	7.62	16793.252	3678.984	16793.252	2282.322	bb			797.6245	132.9	32.9	1567.4
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.23	16679.912	3678.984	16679.912	2266.918	bb			582.1844	97.0	-3.0	428.8
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3678.984		3678.984	3678.984	bb			523.8049	104.8	4.8	230.9
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.27	5771.273	3678.984	5771.273	784.357	bb			619.3290	103.2	3.2	630.1
WXX100304-07CCV	Tetryl	241 > 181	12.77	5035.788	3678.984	5035.788	684.399	bb			672.5937	112.1	12.1	382.1
WXX100304-07CCV	Nitrobenzene	123 > 46	13.71	3969.008	3678.984	3969.008	539.416	bb			653.2568	108.9	8.9	464.3
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	8515.934	19547.650	8515.934	217.825	MM	05-Mar-10	10:06:27	789.7146	131.6	31.6	450.0
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	13454.715	19547.650	13454.715	344.152	bb			849.5422	141.6	41.6	1164.7
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.52	9442.896	19547.650	9442.896	241.535	bb			735.0276	122.5	22.5	274.1
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.51	13769.875	19547.650	13769.875	352.213	bb			364.4337	121.5	21.5	676.9
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.75	26329.188	19547.650	26329.188	673.462	bd			603.7078	100.6	0.6	1723.2
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.40	6497.957	19547.650	6497.957	166.208	MM	05-Mar-10	10:14:36	602.9736	100.5	0.5	387.9
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	19547.650		19547.650	19547.650	bb			475.3671	95.1	-4.9	1057.7
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.25	3997.184	19547.650	3997.184	102.242	bb			660.0571	110.0	10.0	1109.3
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.65	2099.885	19547.650	2099.885	53.712	bb			704.1980	117.4	17.4	556.9
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.33	2265.668	19547.650	2265.668	57.952	bb			614.1987	102.4	2.4	587.3
WXX100304-07CCV	PETN	361 > 62	24.69	47522.520	19547.650	47522.520	1215.556	bb			714.8825	119.1	19.1	12806.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 0205
Standard Number: WXX100304-07CCV
Data File: EXP0304023a

HMX	112.9
RDX	132.9
135-TNB	97.0
13-DNB	103.2
Tetryl	112.1
Nitrobenzene	108.9
4A-26-DNT	131.6
2A-46-DNT	141.6
246-TNT	122.5
34-DNT(surr)	121.5
26-DNT	100.6
24-DNT	100.5
2-NT	110.0
4-NT	117.4
3-NT	102.1
PETN	119.1
Total	1833.9
Average	114.6

MAP 3/6/10

Hmc 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304025a

Analysis Date: 05–MAR–10 03:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	36.072	90	
Nitrobenzene	40	41.851	105	
PETN	40	44.092	110	
RDX	40	37.991	95	
Tetryl	40	37.595	94	
m–Dinitrobenzene	40	36.407	91	
m–Nitrotoluene	40	44.127	110	
o–Nitrotoluene	40	43.573	109	
p–Nitrotoluene	40	37.14	93	
1,3,5–Trinitrobenzene	40	45.531	114	
1,3–Dinitrobenzene–d4	500	486.162	97	
2,4,6–Trinitrotoluene	40	34.785	87	
2,4–Dinitrotoluene	40	43.839	110	
2,6–Dinitrotoluene	40	37.827	95	
2,6–Dinitrotoluene–d3	500	496.377	99	
2–Amino–4,6–dinitrotoluene	40	38.416	96	
3,4–Dinitrotoluene	20	18.756	94	
4–Amino–2,6–dinitrotoluene	40	39.423	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

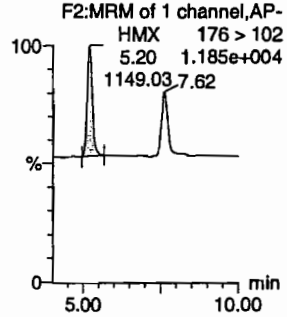
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

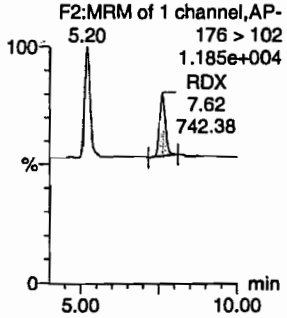
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304025a
Date: 05-Mar-2010
Time: 03:04:14
ID: WXX100304-08CRI
Vial: 1:1,C

MATT 3/6/10

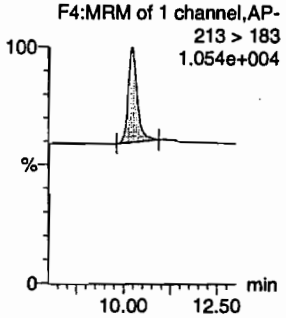
HMX



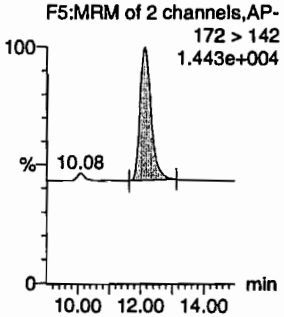
RDX



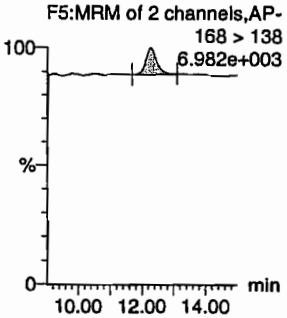
135-Trinitrobenzene



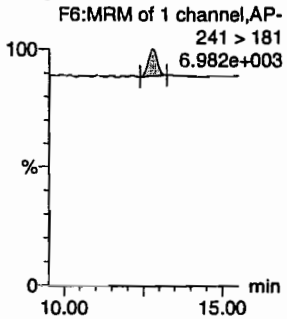
13-Dinitrobenzene-d4



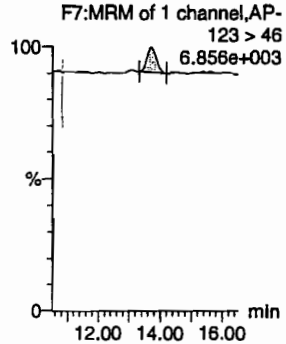
13-Dinitrobenzene



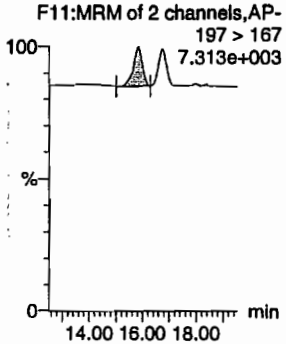
Tetryl



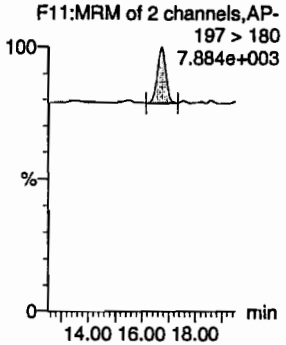
Nitrobenzene



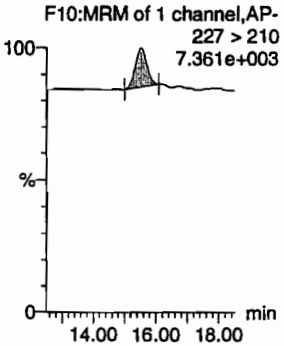
4-Amino-26-dinitrotoluene



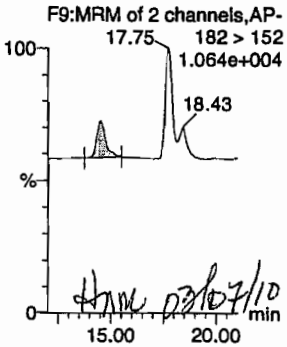
2-Amino-46-dinitrotoluene



246-Trinitrotoluene

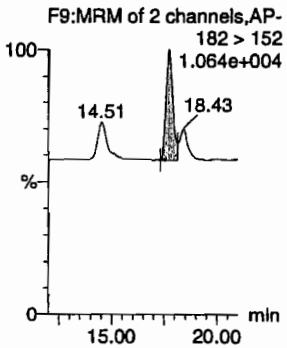


34-dinitrotoluene



HMM 03/07/10

26-dinitrotoluene



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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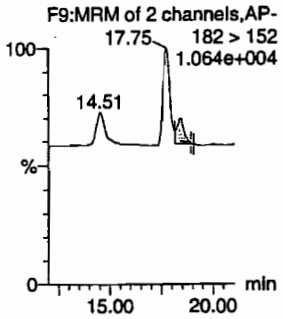
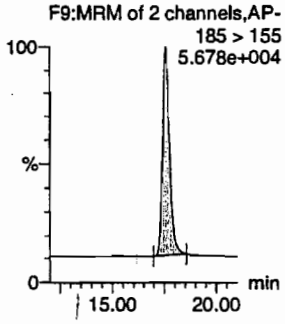
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

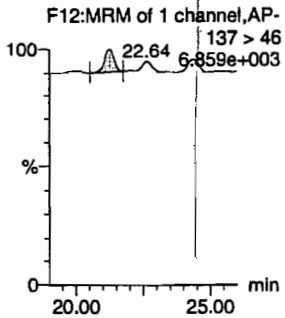
24-dinitrotoluene



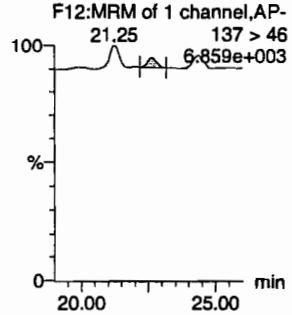
26-dinitrotoluene-d3



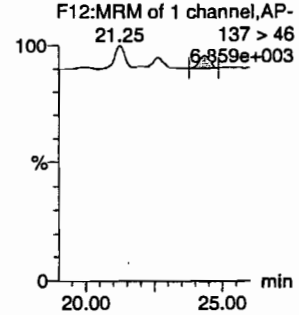
2-Nitrotoluene



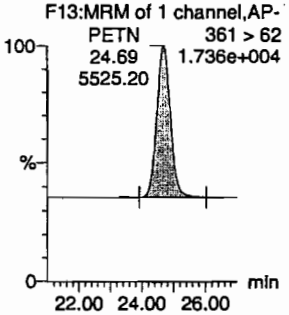
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1149.025	3414.594	1149.025	168.252	bb			36.0722	90.2	-9.8	165.6
WXX100304-08CRI	RDX	176 > 102	7.62	742.378	3414.594	742.378	108.707	bb			37.9907	95.0	-5.0	95.5
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1210.741	3414.594	1210.741	177.289	bb			45.5310	113.8	13.8	229.8
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3414.594		3414.594	3414.594	bb			486.1617	97.2	-2.8	85.2
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	314.881	3414.594	314.881	46.108	bb			36.4070	91.0	-9.0	27.6
WXX100304-08CRI	Tetryl	241 > 181	12.77	261.250	3414.594	261.250	38.255	bb			37.5950	94.0	-6.0	25.8
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	236.004	3414.594	236.004	34.558	bb			41.8514	104.6	4.6	38.7
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	443.909	20411.605	443.909	10.874	bb			39.4230	98.6	-1.4	32.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	635.304	20411.605	635.304	15.562	bb			38.4158	96.0	-4.0	53.4
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.55	466.627	20411.605	466.627	11.430	bb			34.7845	87.0	-13.0	48.2
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.51	740.008	20411.605	740.008	18.127	bb			18.7561	93.8	-6.2	47.1
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.75	1722.620	20411.605	1722.620	42.197	MM	05-Mar-10	10:11:23	37.8265	94.6	-5.4	142.3
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.43	493.310	20411.605	493.310	12.084	MM	05-Mar-10	10:14:45	43.8388	109.6	9.6	38.2
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.57	20411.605		20411.605	20411.605	bb			496.3771	99.3	-0.7	287.3
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.25	275.529	20411.605	275.529	6.749	bb			43.5725	108.9	8.9	54.8
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.64	115.645	20411.605	115.645	2.833	bb			37.1401	92.9	-7.1	23.6
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.36	169.971	20411.605	169.971	4.164	bb			44.1270	110.3	10.3	31.1
WXX100304-08CRI	PETN	361 > 62	24.69	5525.200	20411.605	5525.200	135.345	bb			44.0922	110.2	10.2	367.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	0304
Standard Number	WXX100304-08CRI
Data File	EXP0304025a

HMX	90.2
RDX	95.0
135-TNB	113.8
13-DNB	91.0
Tetryl	94.0
Nitrobenzene	104.6
4A-26-DNT	98.6
2A-46-DNT	96.0
246-TNT	87.0
34-DNT(surr)	93.8
26-DNT	94.6
24-DNT	109.6
2-NT	108.9
4-NT	92.9
3-NT	110.3
PETN	110.2
Total	1590.5
Average	99.4

3/6/10

03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304036a

Analysis Date: 05-MAR-10 08:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	600	672.018	112	
2,4-Dinitrotoluene	600	572.889	95	
2,6-Dinitrotoluene	600	612.517	102	
2,6-Dinitrotoluene-d3	500	508.792	102	
2-Amino-4,6-dinitrotoluene	600	681.036	114	
3,4-Dinitrotoluene	300	311.088	104	
4-Amino-2,6-dinitrotoluene	600	643.868	107	
HMX	600	523.143	87	
Nitrobenzene	600	628.495	105	
PETN	600	577.567	96	
RDX	600	607.989	101	
Tetryl	600	588.724	98	
m-Dinitrobenzene	600	634.351	106	
m-Nitrotoluene	600	540.173	90	
o-Nitrotoluene	600	622.879	104	
p-Nitrotoluene	600	600.392	100	
1,3,5-Trinitrobenzene	600	515.274	86	
1,3-Dinitrobenzene-d4	500	536.623	107	

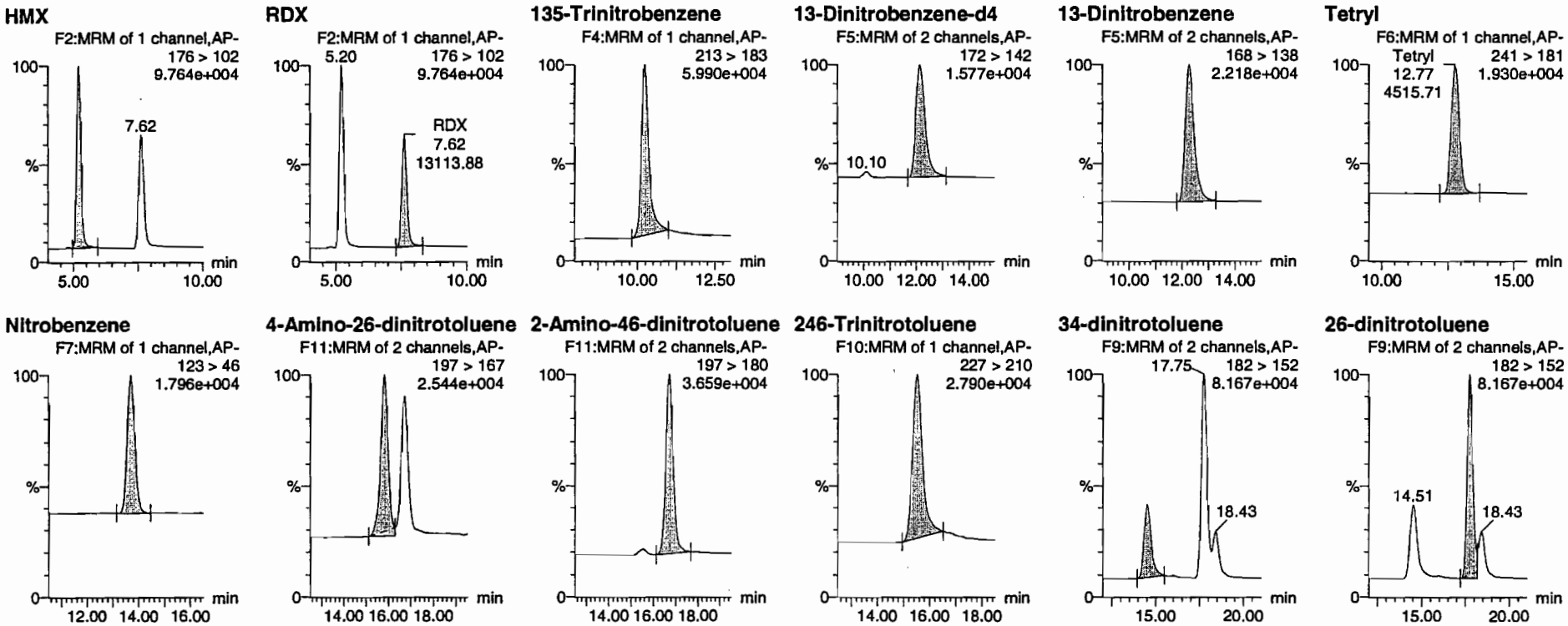
Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304036a
Date: 05-Mar-2010
Time: 08:28:30
ID: WXX100304-07CCV
Vial: 1:1,B

MJP 3/6/10



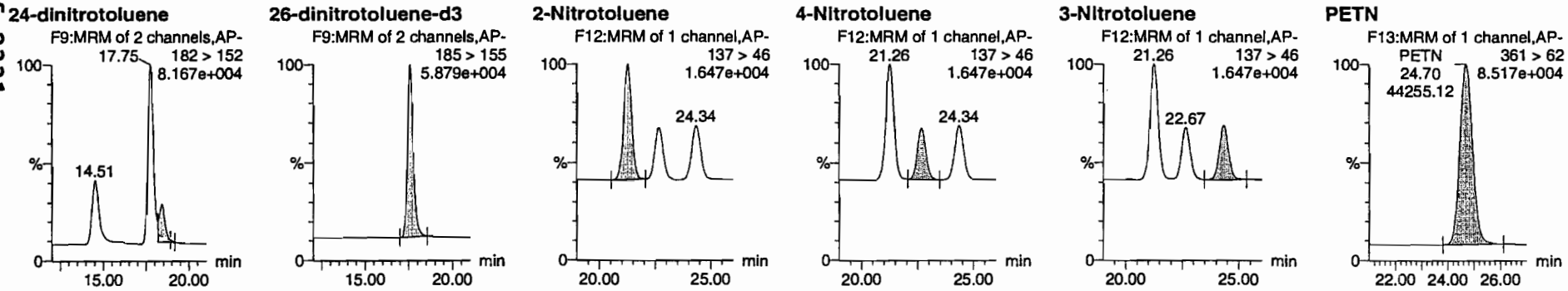
dmm 03/07/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.20	18393.506	3769.010	18393.506	2440.098	db			523.1425	87.2	-12.8	1478.9
WXX100304-07CCV	RDX	176 > 102	7.62	13113.881	3769.010	13113.881	1739.698	bb			607.9888	101.3	1.3	912.6
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.23	15124.150	3769.010	15124.150	2006.382	bb			515.2742	85.9	-14.1	1681.4
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3769.010		3769.010	3769.010	bb			536.6226	107.3	7.3	211.6
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.27	6055.908	3769.010	6055.908	803.382	bb			634.3511	105.7	5.7	341.1
WXX100304-07CCV	Tetryl	241 > 181	12.77	4515.707	3769.010	4515.707	599.057	bb			588.7240	98.1	-1.9	461.6
WXX100304-07CCV	Nitrobenzene	123 > 46	13.72	3912.001	3769.010	3912.001	518.969	bb			628.4946	104.7	4.7	410.3
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7431.390	20922.104	7431.390	177.597	MM	05-Mar-10	10:07:06	643.8684	107.3	7.3	244.6
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11544.367	20922.104	11544.367	275.889	bb			681.0355	113.5	13.5	719.9
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.55	9240.455	20922.104	9240.455	220.830	bb			672.0182	112.0	12.0	377.4
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.51	12580.740	20922.104	12580.740	300.657	bb			311.0885	103.7	3.7	401.3
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.75	28591.688	20922.104	28591.688	683.289	MM	05-Mar-10	10:12:12	612.5172	102.1	2.1	1125.2
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.43	6607.849	20922.104	6607.849	157.915	MM	05-Mar-10	10:15:32	572.8894	95.5	-4.5	244.0
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	20922.104		20922.104	20922.104	bb			508.7916	101.8	1.8	2012.4
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.26	4037.262	20922.104	4037.262	96.483	bb			622.8787	103.8	3.8	781.2
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.67	1916.226	20922.104	1916.226	45.794	bb			600.3925	100.1	0.1	346.0
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.34	2132.706	20922.104	2132.706	50.968	bb			540.1729	90.0	-10.0	362.7
WXX100304-07CCV	PETN	361 > 62	24.70	44255.117	20922.104	44255.117	1057.616	bb			577.5671	96.3	-3.7	1129.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 0828
Standard Number: WXX100304-07CCV
Data File: EXP0304036a

HMX	87.2
RDX	101.3
135-TNB	85.9
13-DNB	105.7
Tetryl	98.1
Nitrobenzene	104.7
4A-26-DNT	107.3
2A-46-DNT	113.5
246-TNT	112.0
34-DNT(surr)	103.7
26-DNT	102.1
24-DNT	95.5
2-NT	103.8
4-NT	100.1
3-NT	90.0
PETN	96.3
Total	1607.2
Average	100.5

HMM 3/6/10

HMM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0304038a

Analysis Date: 05-MAR-10 09:27

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.063	120	
1,3-Dinitrobenzene-d4	500	567.712	114	
2,4,6-Trinitrotoluene	40	40.001	100	
2,4-Dinitrotoluene	40	36.759	92	
2,6-Dinitrotoluene	40	39.855	100	
2,6-Dinitrotoluene-d3	500	569.834	114	
2-Amino-4,6-dinitrotoluene	40	38.546	96	
3,4-Dinitrotoluene	20	17.879	89	
4-Amino-2,6-dinitrotoluene	40	46.263	116	
HMX	40	38.837	97	
Nitrobenzene	40	43.406	109	
PETN	40	38.4	96	
RDX	40	41.881	105	
Tetryl	40	47.052	118	
m-Dinitrobenzene	40	39.692	99	
m-Nitrotoluene	40	40.239	101	
o-Nitrotoluene	40	38.86	97	
p-Nitrotoluene	40	39.046	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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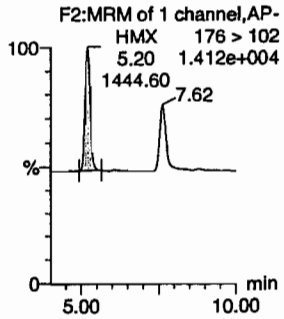
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

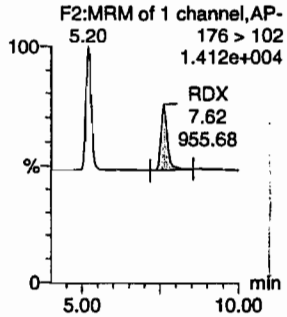
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304038a
Date: 05-Mar-2010
Time: 09:27:34
ID: WXX100304-08CRI
Vial: 1:1,C

MMP 3/6/10

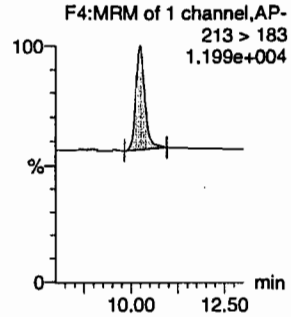
HMX



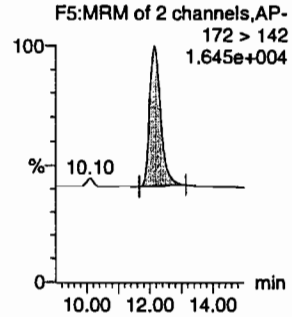
RDX



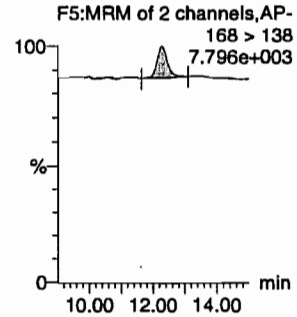
135-Trinitrobenzene



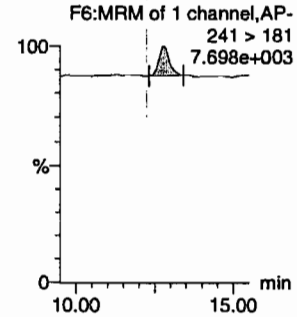
13-Dinitrobenzene-d4



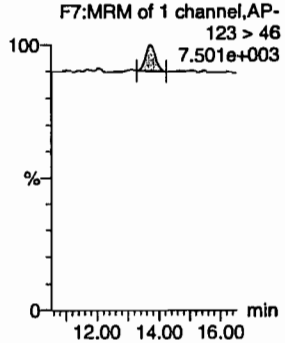
13-Dinitrobenzene



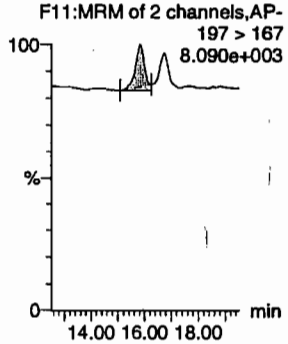
Tetryl



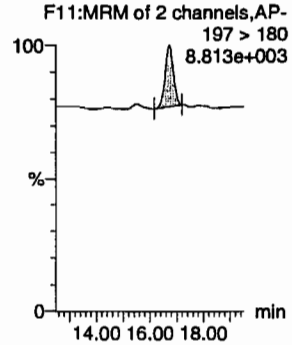
Nitrobenzene



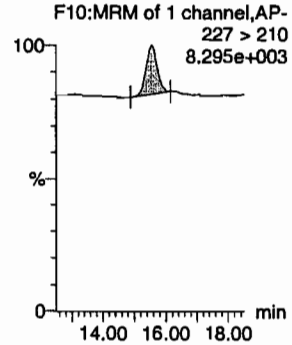
4-Amino-26-dinitrotoluene



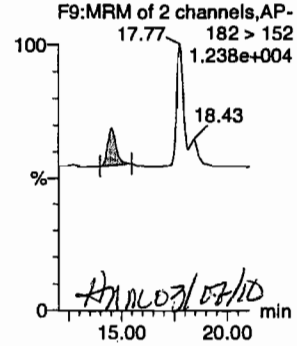
2-Amino-46-dinitrotoluene



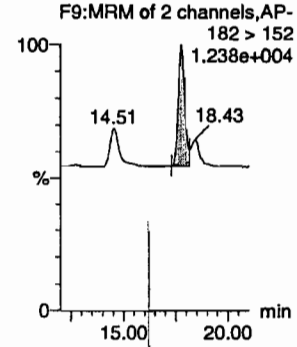
246-Trinitrotoluene



34-dinitrotoluene



26-dinitrotoluene

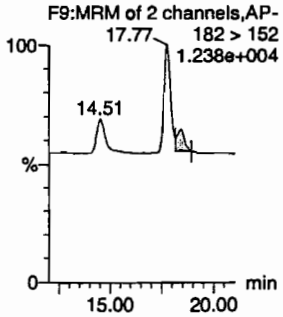


GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

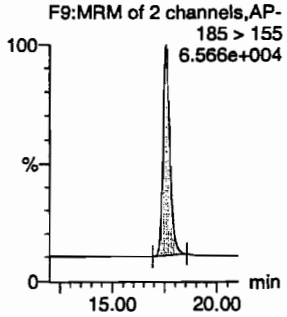
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

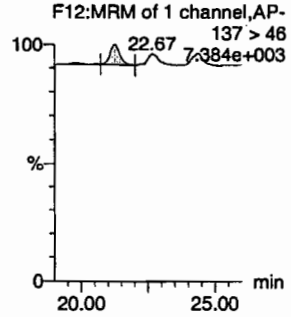
24-dinitrotoluene



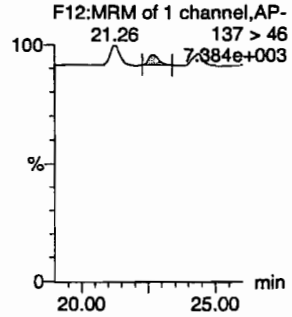
26-dinitrotoluene-d3



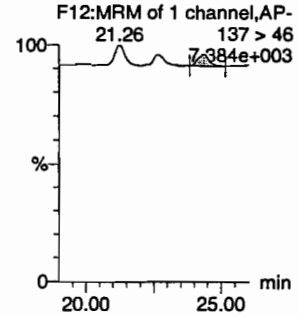
2-Nitrotoluene



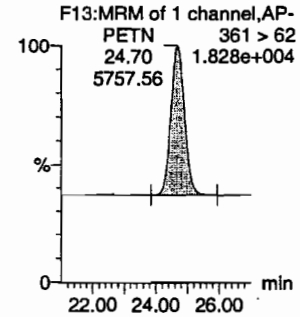
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1444.595	3987.369	1444.595	181.146	bb			38.8367	97.1	-2.9	378.8
WXX100304-08CRI	RDX	176 > 102	7.62	955.681	3987.369	955.681	119.839	bb			41.8811	104.7	4.7	198.0
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1492.464	3987.369	1492.464	187.149	bb			48.0631	120.2	20.2	84.1
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3987.369		3987.369	3987.369	bb			567.7120	113.5	13.5	417.0
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	400.882	3987.369	400.882	50.269	bb			39.6924	99.2	-0.8	24.5
WXX100304-08CRI	Tetryl	241 > 181	12.77	381.817	3987.369	381.817	47.878	bb			47.0524	117.6	17.6	25.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	285.830	3987.369	285.830	35.842	bb			43.4061	108.5	8.5	24.9
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	598.013	23432.250	598.013	12.760	MM	05-Mar-10	10:07:28	46.2625	115.7	15.7	34.2
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	731.783	23432.250	731.783	15.615	bb			38.5455	96.4	-3.6	66.3
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.55	616.013	23432.250	616.013	13.145	bb			40.0008	100.0	0.0	42.1
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.51	809.807	23432.250	809.807	17.280	bb			17.8793	89.4	-10.6	40.6
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.77	2083.575	23432.250	2083.575	44.460	MM	05-Mar-10	10:12:20	39.8547	99.6	-0.4	131.5
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.43	474.849	23432.250	474.849	10.132	MM	05-Mar-10	10:15:38	36.7585	91.9	-8.1	26.6
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	23432.250		23432.250	23432.250	bb			569.8343	114.0	14.0	2088.9
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.26	282.094	23432.250	282.094	6.019	bb			38.8599	97.1	-2.9	32.5
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.67	139.572	23432.250	139.572	2.978	bb			39.0461	97.6	-2.4	16.0
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.38	177.933	23432.250	177.933	3.797	bb			40.2392	100.6	0.6	18.9
WXX100304-08CRI	PETN	361 > 62	24.70	5757.563	23432.250	5757.563	122.856	bb			38.3995	96.0	-4.0	941.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	0927
Standard Number	WXX100304-08CRI
Data File	EXP0304038a

HMX	97.1
RDX	104.7
135-TNB	120.2
13-DNB	99.2
Tetryl	117.6
Nitrobenzene	108.5
4A-26-DNT	115.7
2A-46-DNT	96.4
246-TNT	100.0
34-DNT(surr)	89.4
26-DNT	99.6
24-DNT	91.9
2-NT	97.1
4-NT	97.6
3-NT	100.6
PETN	96.0
Total	1631.6
Average	102.0

MAT 3/6/10

Hmm 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304049a

Analysis Date: 05-MAR-10 14:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	553.66	92	
1,3-Dinitrobenzene-d4	500	505.7	101	
2,4,6-Trinitrotoluene	600	658.826	110	
2,4-Dinitrotoluene	600	563.598	94	
2,6-Dinitrotoluene	600	590.275	98	
2,6-Dinitrotoluene-d3	500	516.322	103	
2-Amino-4,6-dinitrotoluene	600	640.403	107	
3,4-Dinitrotoluene	300	295.719	99	
4-Amino-2,6-dinitrotoluene	600	631.798	105	
HMX	600	537.583	90	
Nitrobenzene	600	626.896	104	
PETN	600	590.161	98	
RDX	600	630.1	105	
Tetryl	600	629.847	105	
m-Dinitrobenzene	600	598.536	100	
m-Nitrotoluene	600	561.186	94	
o-Nitrotoluene	600	596.576	99	
p-Nitrotoluene	600	615.575	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

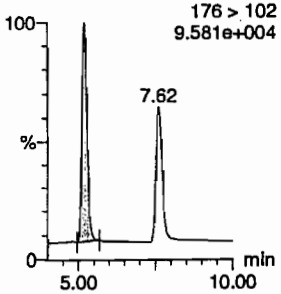
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

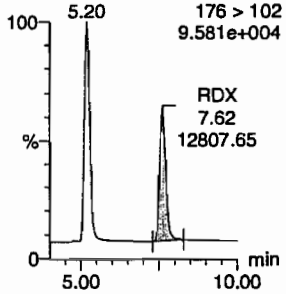
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304049a
Date: 05-Mar-2010
Time: 14:52:12
ID: WXX100304-07CCV
Vial: 1:1,B

MMT 3/6/10

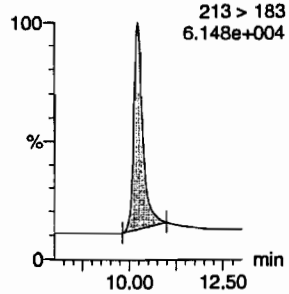
HMX
F2:MRM of 1 channel,AP-
176 > 102
9.581e+004



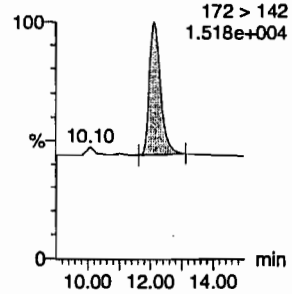
RDX
F2:MRM of 1 channel,AP-
176 > 102
9.581e+004



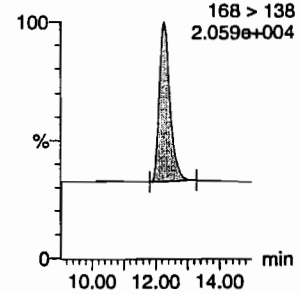
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.148e+004



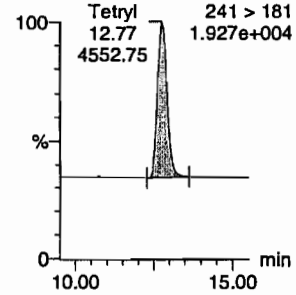
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.518e+004



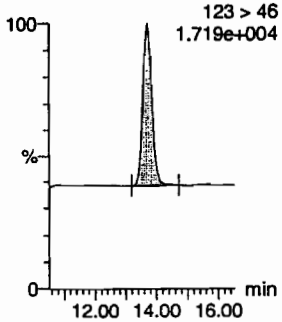
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.059e+004



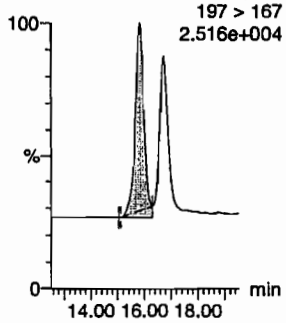
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.927e+004



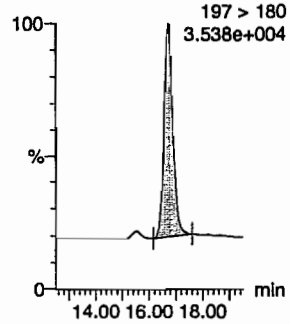
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.719e+004



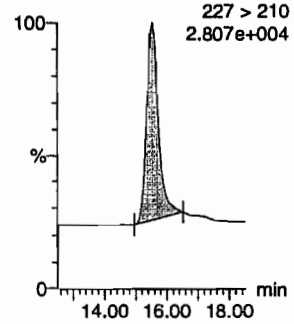
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.516e+004



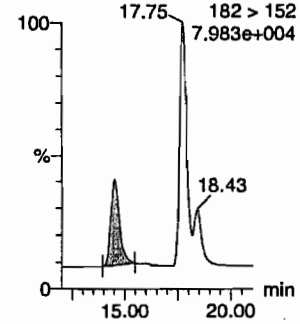
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.538e+004



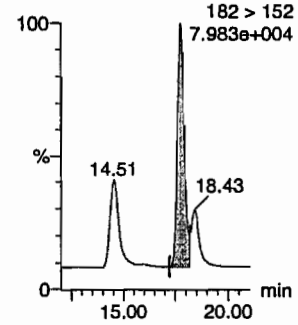
246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.807e+004



34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.983e+004



26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.983e+004



tnm 03/07/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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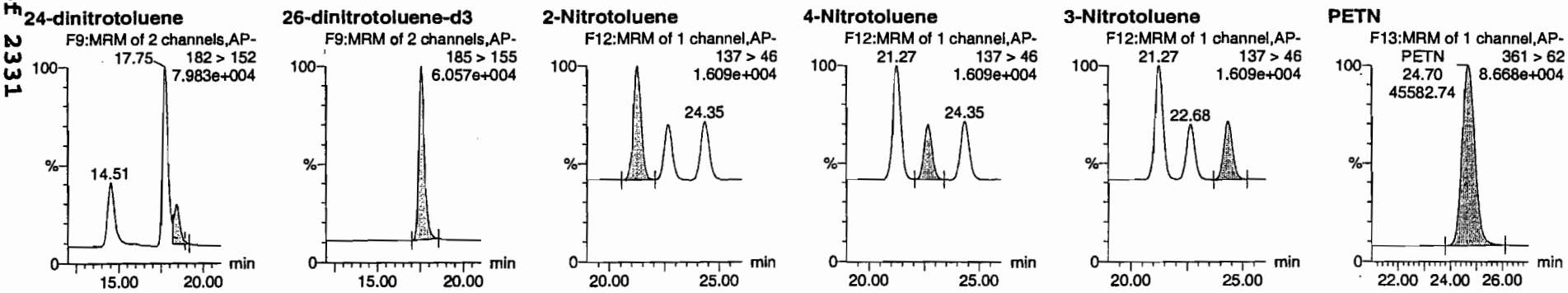
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.20	17812.063	3551.826	17812.063	2507.452	bb			537.5828	89.6	-10.4	1664.9
WXX100304-07CCV	RDX	176 > 102	7.62	12807.652	3551.826	12807.652	1802.967	bb			630.0999	105.0	5.0	1029.0
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.23	15314.414	3551.826	15314.414	2155.851	bb			553.6603	92.3	-7.7	787.1
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3551.826		3551.826	3551.826	bb			505.7004	101.1	1.1	212.6
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.27	5384.733	3551.826	5384.733	758.023	bb			598.5359	99.8	-0.2	403.2
WXX100304-07CCV	Tetryl	241 > 181	12.77	4552.748	3551.826	4552.748	640.902	bb			629.8472	105.0	5.0	552.4
WXX100304-07CCV	Nitrobenzene	123 > 46	13.72	3677.203	3551.826	3677.203	517.650	bb			626.8964	104.5	4.5	408.6
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7399.999	21231.762	7399.999	174.267	MM	06-Mar-10	12:11:04	631.7977	105.3	5.3	496.7
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11016.273	21231.762	11016.273	259.429	bb			640.4034	106.7	6.7	751.3
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.55	9193.135	21231.762	9193.135	216.495	bb			658.8258	109.8	9.8	813.4
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.51	12136.202	21231.762	12136.202	285.803	bb			295.7194	98.6	-1.4	558.4
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.75	27961.234	21231.762	27961.234	658.477	MM	06-Mar-10	12:14:47	590.2747	98.4	-1.6	1598.9
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.43	6596.898	21231.762	6596.898	155.354	MM	06-Mar-10	12:15:00	563.5984	93.9	-6.1	349.0
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	21231.762		21231.762	21231.762	bb			516.3220	103.3	3.3	1428.5
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.27	3924.011	21231.762	3924.011	92.409	bb			596.5764	99.4	-0.6	813.6
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.68	1993.761	21231.762	1993.761	46.952	bb			615.5749	102.6	2.6	395.6
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.35	2248.463	21231.762	2248.463	52.950	bb			561.1861	93.5	-6.5	417.7
WXX100304-07CCV	PETN	361 > 62	24.70	45582.738	21231.762	45582.738	1073.456	bb			590.1608	98.4	-1.6	3875.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 1452
Standard Number: WXX100304-07CCV
Data File: EXP0304049a

HMX	89.6
RDX	105.0
135-TNB	92.3
13-DNB	99.8
Tetryl	105.0
Nitrobenzene	104.5
4A-26-DNT	105.3
2A-46-DNT	106.7
246-TNT	109.8
34-DNT(surr)	98.6
26-DNT	98.4
24-DNT	93.9
2-NT	99.4
4-NT	102.6
3-NT	93.5
PETN	98.4
Total	1602.8
Average	100.2

MATP 3/6/10

HMC 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304051a

Analysis Date: 05–MAR–10 15:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3–Dinitrobenzene–d4	500	505.962	101	
2,4,6–Trinitrotoluene	40	43.019	108	
2,4–Dinitrotoluene	40	36.168	90	
2,6–Dinitrotoluene	40	40.992	102	
2,6–Dinitrotoluene–d3	500	562.467	112	
2–Amino–4,6–dinitrotoluene	40	41.661	104	
3,4–Dinitrotoluene	20	18.026	90	
4–Amino–2,6–dinitrotoluene	40	34.434	86	
HMX	40	42.762	107	
Nitrobenzene	40	43.048	108	
PETN	40	41.201	103	
RDX	40	42.966	107	
Tetryl	40	50.733	127	
m–Dinitrobenzene	40	39.555	99	
m–Nitrotoluene	40	42.174	105	
o–Nitrotoluene	40	36.513	91	
p–Nitrotoluene	40	41.047	103	
1,3,5–Trinitrobenzene	40	51.153	128	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

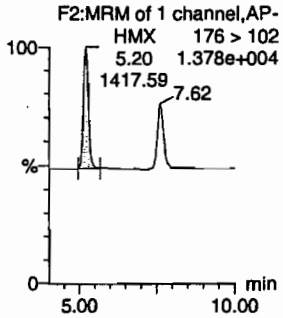
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

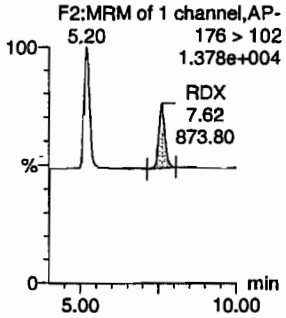
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304051a
Date: 05-Mar-2010
Time: 15:51:17
ID: WXX100304-08CRI
Vial: 1:1,C

MMT 3/6/10

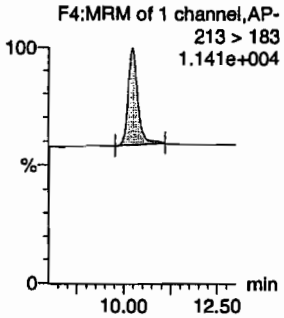
HMX



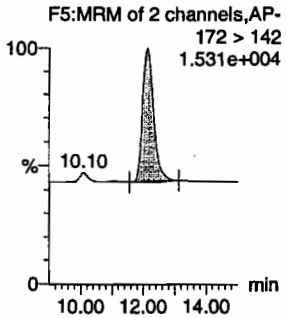
RDX



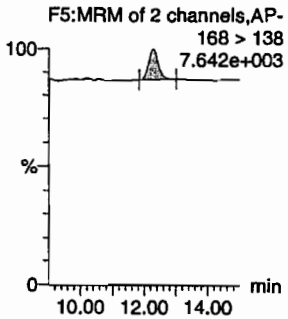
135-Trinitrobenzene



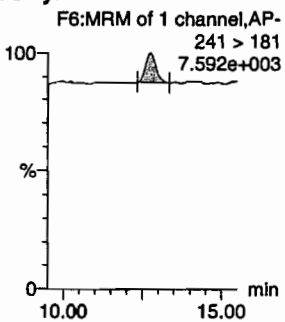
13-Dinitrobenzene-d4



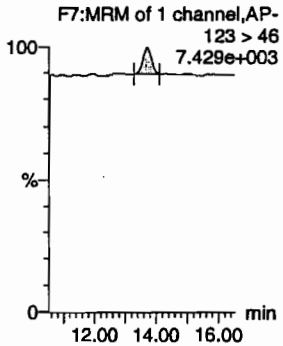
13-Dinitrobenzene



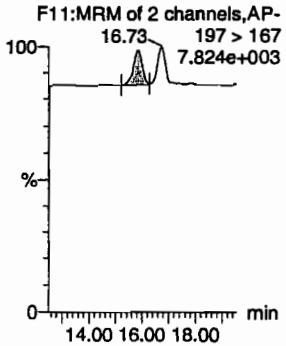
Tetryl



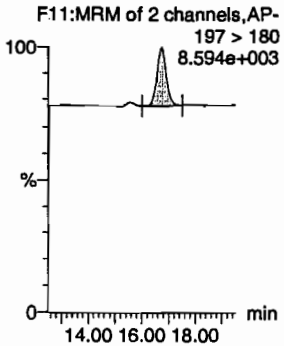
Nitrobenzene



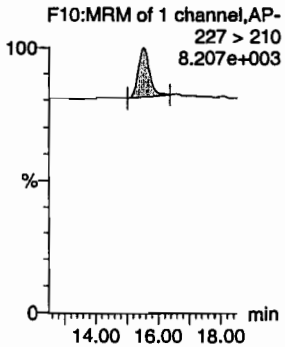
4-Amino-26-dinitrotoluene



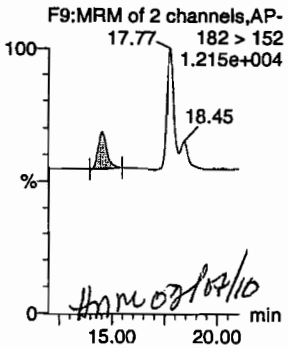
2-Amino-46-dinitrotoluene



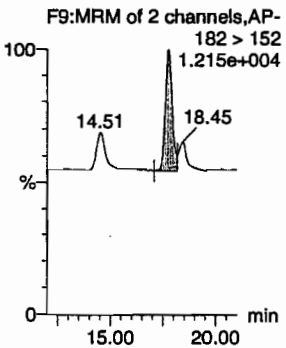
246-Trinitrotoluene



34-dinitrotoluene



26-dinitrotoluene



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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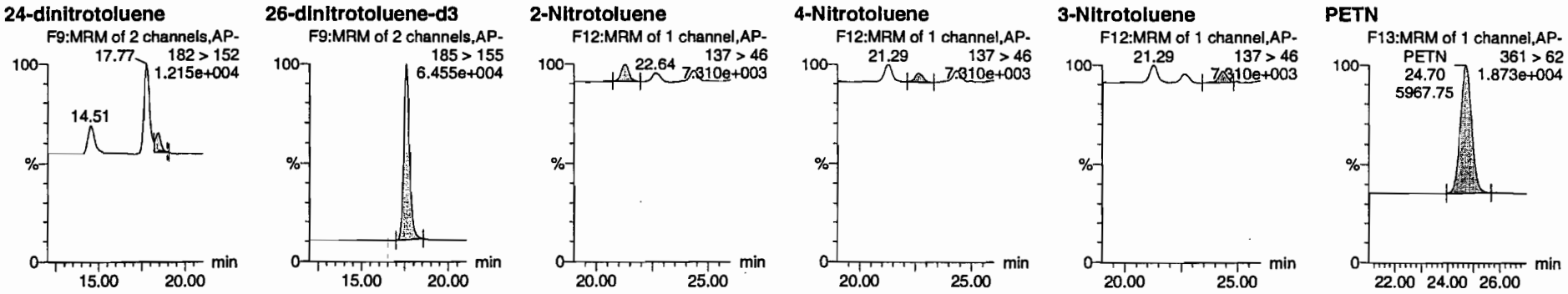
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1417.593	3553.665	1417.593	199.455	bb			42.7620	106.9	6.9	172.8
WXX100304-08CRI	RDX	176 > 102	7.62	873.798	3553.665	873.798	122.943	bb			42.9661	107.4	7.4	91.2
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1415.644	3553.665	1415.644	199.181	bb			51.1531	127.9	27.9	144.6
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3553.665		3553.665	3553.665	bb			505.9623	101.2	1.2	134.1
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	356.044	3553.665	356.044	50.095	bb			39.5553	98.9	-1.1	61.5
WXX100304-08CRI	Tetryl	241 > 181	12.77	366.905	3553.665	366.905	51.623	bb			50.7330	126.8	26.8	38.1
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	252.641	3553.665	252.641	35.547	bb			43.0484	107.6	7.6	26.8
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	439.361	23129.281	439.361	9.498	MM	06-Mar-10	12:10:49	34.4343	86.1	-13.9	41.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	780.703	23129.281	780.703	16.877	bb			41.6609	104.2	4.2	107.0
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.52	653.919	23129.281	653.919	14.136	bb			43.0185	107.5	7.5	46.5
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.51	805.904	23129.281	805.904	17.422	bb			18.0262	90.1	-9.9	92.2
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.77	2115.341	23129.281	2115.341	45.729	MM	06-Mar-10	12:14:36	40.9923	102.5	2.5	301.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.45	461.181	23129.281	461.181	9.970	MM	06-Mar-10	12:15:17	36.1681	90.4	-9.6	64.8
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	23129.281		23129.281	23129.281	bb			562.4666	112.5	12.5	1880.7
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.29	261.630	23129.281	261.630	5.656	bb			36.5130	91.3	-8.7	58.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.64	144.827	23129.281	144.827	3.131	bb			41.0470	102.6	2.6	29.7
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.34	184.075	23129.281	184.075	3.979	bb			42.1735	105.4	5.4	36.7
WXX100304-08CRI	PETN	361 > 62	24.70	5967.752	23129.281	5967.752	129.009	bb			41.2009	103.0	3.0	1834.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	1551
Standard Number	WXX100304-08CRI
Data File	EXP0304051a

HMX	106.9
RDX	107.4
135-TNB	127.9
13-DNB	98.9
Tetryl	126.8
Nitrobenzene	107.6
4A-26-DNT	86.1
2A-46-DNT	104.2
246-TNT	107.5
34-DNT(surr)	90.1
26-DNT	102.5
24-DNT	90.4
2-NT	91.3
4-NT	102.6
3-NT	105.4
PETN	103.0
Total	1658.6
Average	103.7

MJT 3/6/10

HMM 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304064a

Analysis Date: 05-MAR-10 22:14

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	600	684.022	114	
2,4-Dinitrotoluene	600	572.807	95	
2,6-Dinitrotoluene	600	602.144	100	
2,6-Dinitrotoluene-d3	500	514.259	103	
2-Amino-4,6-dinitrotoluene	600	681.738	114	
3,4-Dinitrotoluene	300	308.574	103	
4-Amino-2,6-dinitrotoluene	600	672.822	112	
HMX	600	559.79	93	
Nitrobenzene	600	614.548	102	
PETN	600	770.241	128	*
RDX	600	631.612	105	
Tetryl	600	585.793	98	
m-Dinitrobenzene	600	571.183	95	
m-Nitrotoluene	600	594.436	99	
o-Nitrotoluene	600	627.073	105	
p-Nitrotoluene	600	632.094	105	
1,3,5-Trinitrobenzene	600	563.548	94	
1,3-Dinitrobenzene-d4	500	511.802	102	

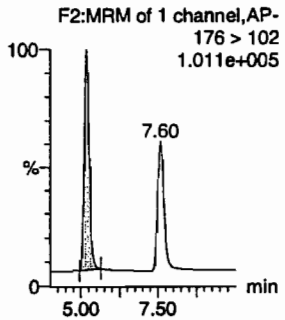
Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

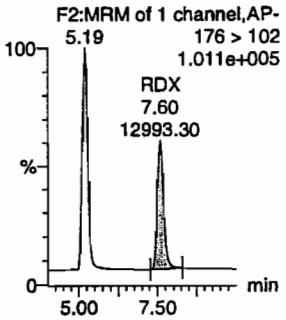
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304064a
Date: 05-Mar-2010
Time: 22:14:55
ID: WXX100304-07CCV
Vial: 1:1,B

KMT 3/6/10

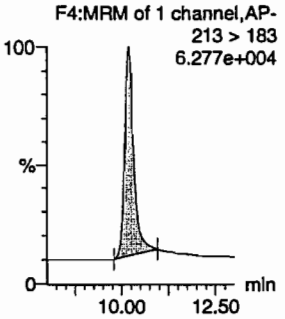
HMX



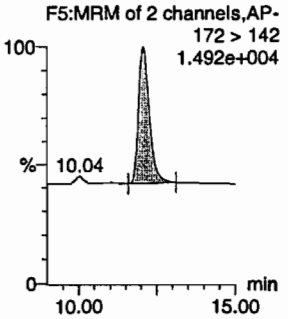
RDX



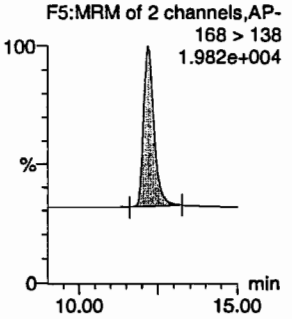
135-Trinitrobenzene



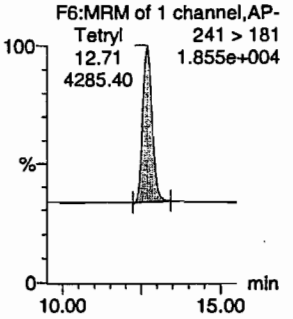
13-Dinitrobenzene-d4



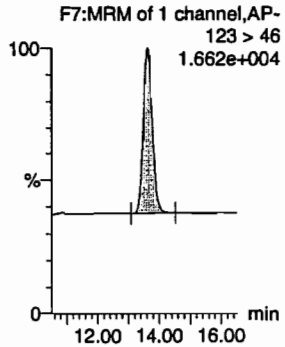
13-Dinitrobenzene



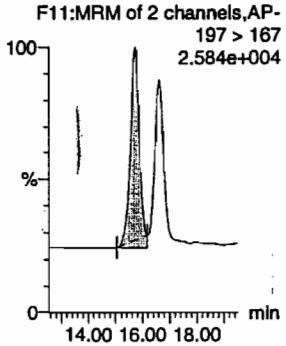
Tetryl



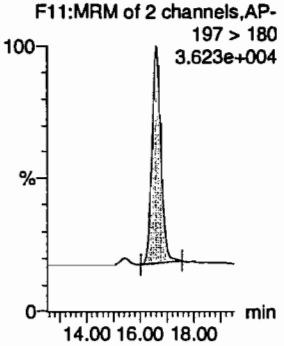
Nitrobenzene



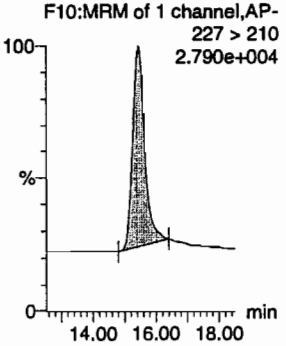
4-Amino-26-dinitrotoluene



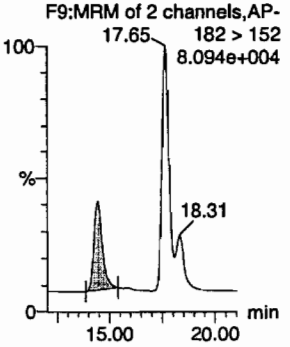
2-Amino-46-dinitrotoluene



246-Trinitrotoluene

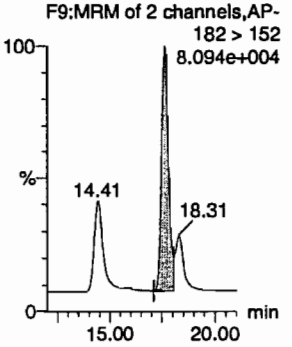


34-dinitrotoluene



HMW 03/07/10

26-dinitrotoluene



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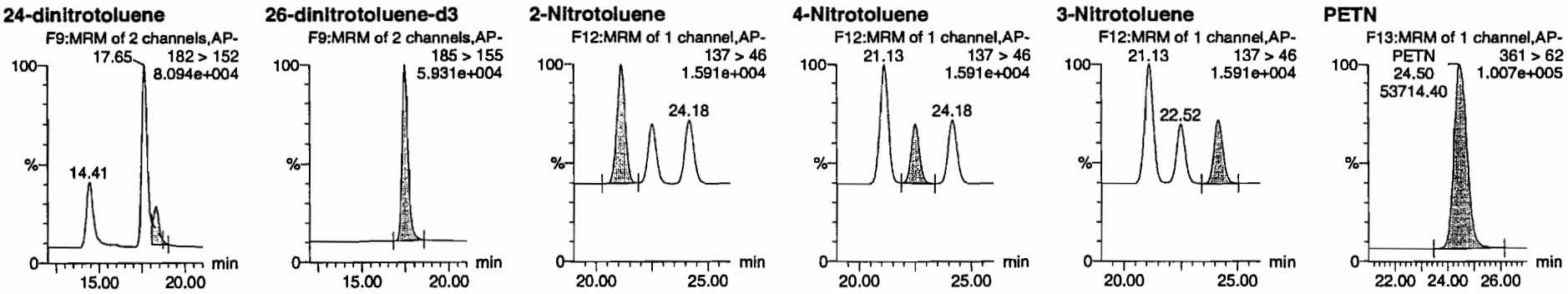
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	18771.666	3594.682	18771.666	2611.033	bb			559.7900	93.3	-6.7	1043.3
WXX100304-07CCV	RDX	176 > 102	7.60	12993.296	3594.682	12993.296	1807.294	bb			631.6121	105.3	5.3	610.6
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.19	15775.996	3594.682	15775.996	2194.352	bb			563.5481	93.9	-6.1	3611.2
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3594.682		3594.682	3594.682	bb			511.8022	102.4	2.4	147.2
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5200.653	3594.682	5200.653	723.382	bb			571.1828	95.2	-4.8	212.5
WXX100304-07CCV	Tetryl	241 > 181	12.71	4285.402	3594.682	4285.402	596.075	bb			585.7932	97.6	-2.4	284.4
WXX100304-07CCV	Nitrobenzene	123 > 46	13.61	3648.266	3594.682	3648.266	507.453	bb			614.5481	102.4	2.4	254.9
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	7849.007	21146.920	7849.007	185.583	MM	06-Mar-10	12:09:33	672.8217	112.1	12.1	316.7
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	11680.449	21146.920	11680.449	276.174	bb			681.7379	113.6	13.6	1008.4
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.44	9506.581	21146.920	9506.581	224.775	bb			684.0223	114.0	14.0	131.1
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.41	12613.161	21146.920	12613.161	298.227	bb			308.5744	102.9	2.9	354.8
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.65	28409.504	21146.920	28409.504	671.717	MM	06-Mar-10	12:13:32	602.1441	100.4	0.4	993.5
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.31	6677.896	21146.920	6677.896	157.893	MM	06-Mar-10	12:17:10	572.8073	95.5	-4.5	212.4
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	21146.920		21146.920	21146.920	bb			514.2588	102.9	2.9	1777.2
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.13	4108.123	21146.920	4108.123	97.133	bb			627.0731	104.5	4.5	746.4
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.52	2039.084	21146.920	2039.084	48.212	bb			632.0943	105.3	5.3	366.9
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.18	2372.165	21146.920	2372.165	56.088	bb			594.4358	99.1	-0.9	394.8
WXX100304-07CCV	PETN	361 > 62	24.50	53714.398	21146.920	53714.398	1270.029	bb			770.2412	128.4	28.4	6214.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 2214
Standard Number: WXX100304-07CCV
Data File: EXP0304064a

HMX	93.3
RDX	105.3
135-TNB	93.9
13-DNB	95.2
Tetryl	97.6
Nitrobenzene	102.4
4A-26-DNT	112.1
2A-46-DNT	113.6
246-TNT	114.0
34-DNT(surr)	102.9
26-DNT	100.4
24-DNT	95.5
2-NT	104.5
4-NT	105.3
3-NT	99.1
PETN	128.4
Total	1663.5
Average	104.0

MMT 3/6/10

HMM 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304066a

Analysis Date: 05–MAR–10 23:13

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	46.373	116	
PETN	40	50.567	126	
RDX	40	39.862	100	
Tetryl	40	44.962	112	
m–Dinitrobenzene	40	38.965	97	
m–Nitrotoluene	40	40.333	101	
o–Nitrotoluene	40	39.738	99	
p–Nitrotoluene	40	41.622	104	
1,3,5–Trinitrobenzene	40	45.259	113	
1,3–Dinitrobenzene–d4	500	507.864	102	
2,4,6–Trinitrotoluene	40	36.863	92	
2,4–Dinitrotoluene	40	36.208	91	
2,6–Dinitrotoluene	40	38.64	97	
2,6–Dinitrotoluene–d3	500	550.381	110	
2–Amino–4,6–dinitrotoluene	40	44.961	112	
3,4–Dinitrotoluene	20	22.033	110	
4–Amino–2,6–dinitrotoluene	40	40.967	102	
HMX	40	40.601	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

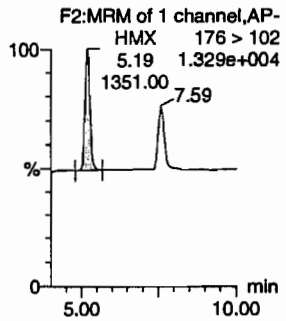
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

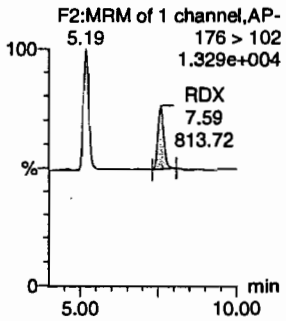
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304066a
Date: 05-Mar-2010
Time: 23:13:59
ID: WXX100304-08CRI
Vial: 1:1,C

MM 3/6/10

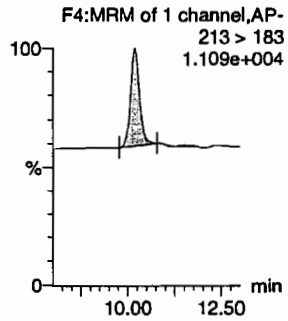
HMX



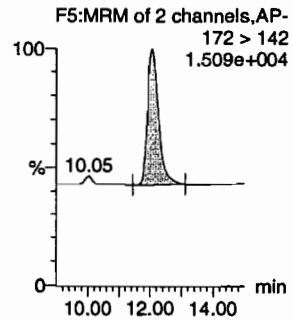
RDX



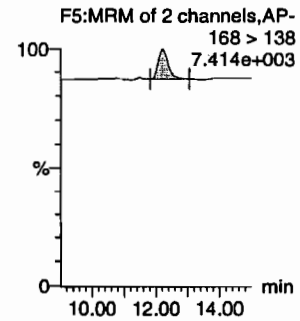
135-Trinitrobenzene



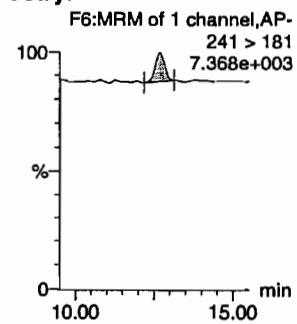
13-Dinitrobenzene-d4



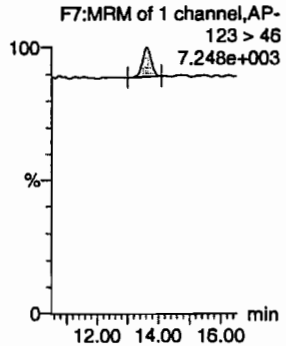
13-Dinitrobenzene



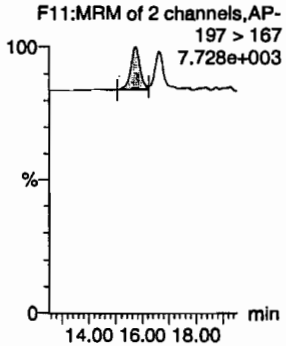
Tetryl



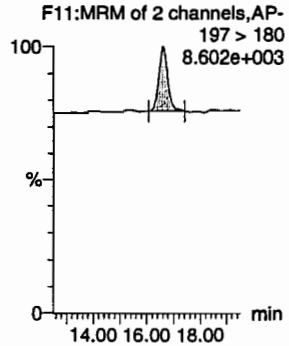
Nitrobenzene



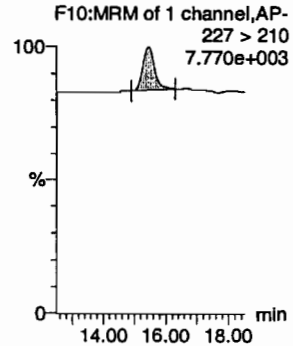
4-Amino-26-dinitrotoluene



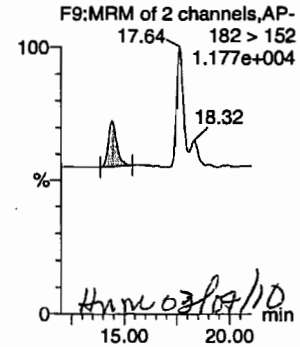
2-Amino-46-dinitrotoluene



246-Trinitrotoluene

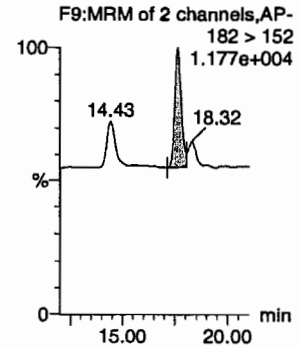


34-dinitrotoluene



HMM 03/04/10

26-dinitrotoluene



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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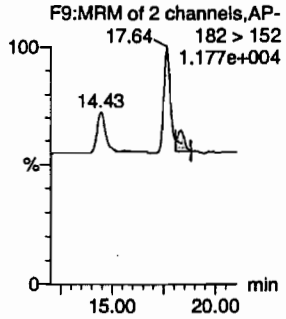
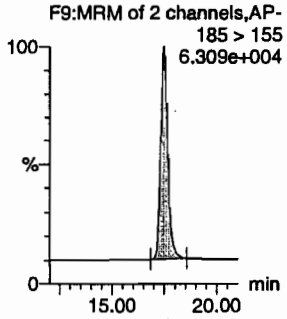
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

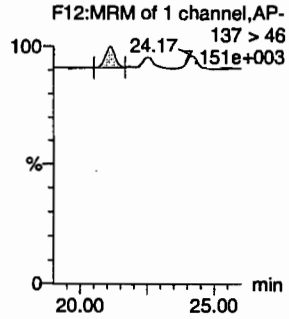
24-dinitrotoluene



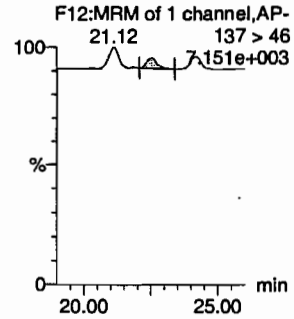
26-dinitrotoluene-d3



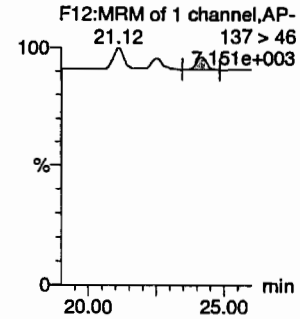
2-Nitrotoluene



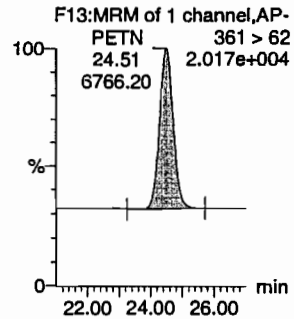
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	S/Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1351.002	3567.025	1351.002	189.374	bb			40.6006	101.5	1.5	260.1
WXX100304-08CRI	RDX	176 > 102	7.59	813.718	3567.025	813.718	114.061	bb			39.8620	99.7	-0.3	135.2
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1257.242	3567.025	1257.242	176.231	bb			45.2593	113.1	13.1	251.2
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3567.025		3567.025	3567.025	bb			507.8644	101.6	1.6	201.8
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	352.048	3567.025	352.048	49.348	bb			38.9649	97.4	-2.6	48.8
WXX100304-08CRI	Tetryl	241 > 181	12.68	326.391	3567.025	326.391	45.751	bb			44.9620	112.4	12.4	22.2
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	273.177	3567.025	273.177	38.292	bb			46.3733	115.9	15.9	20.5
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	511.486	22632.297	511.486	11.300	MM	06-Mar-10	12:09:24	40.9673	102.4	2.4	47.7
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	824.442	22632.297	824.442	18.214	bb			44.9611	112.4	12.4	109.3
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	548.303	22632.297	548.303	12.113	bb			36.8625	92.2	-7.8	78.8
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	963.852	22632.297	963.852	21.294	bb			22.0326	110.2	10.2	29.0
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	1951.119	22632.297	1951.119	43.105	MM	06-Mar-10	12:13:21	38.6402	96.6	-3.4	74.9
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.32	451.769	22632.297	451.769	9.981	MM	06-Mar-10	12:17:18	36.2079	90.5	-9.5	15.3
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	22632.297		22632.297	22632.297	bb			550.3807	110.1	10.1	2079.0
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.12	278.623	22632.297	278.623	6.155	bb			39.7384	99.3	-0.7	65.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.53	143.700	22632.297	143.700	3.175	bb			41.6219	104.1	4.1	31.0
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.17	172.257	22632.297	172.257	3.806	bb			40.3325	100.8	0.8	37.8
WXX100304-08CRI	PETN	361 > 62	24.51	6766.197	22632.297	6766.197	149.481	bb			50.5667	126.4	26.4	2009.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	2313
Standard Number	WXX100304-08CRI
Data File	EXP0304066a

HMX	101.5
RDX	99.7
135-TNB	113.1
13-DNB	97.4
Tetryl	112.4
Nitrobenzene	115.9
4A-26-DNT	102.4
2A-46-DNT	112.4
246-TNT	92.2
34-DNT(surr)	110.2
26-DNT	96.6
24-DNT	90.5
2-NT	99.3
4-NT	104.1
3-NT	100.8
PETN	126.4
Total	1674.9
Average	104.7

HMM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304076a

Analysis Date: 06-MAR-10 04:08

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	828.113	138	*
RDX	600	676.064	113	
Tetryl	600	623.054	104	
m-Dinitrobenzene	600	593.851	99	
m-Nitrotoluene	600	569.058	95	
o-Nitrotoluene	600	606.407	101	
p-Nitrotoluene	600	588.238	98	
1,3,5-Trinitrobenzene	600	589.2	98	
1,3-Dinitrobenzene-d4	500	483.866	97	
2,4,6-Trinitrotoluene	600	655.326	109	
2,4-Dinitrotoluene	600	604.001	101	
2,6-Dinitrotoluene	600	599.969	100	
2,6-Dinitrotoluene-d3	500	511.697	102	
2-Amino-4,6-dinitrotoluene	600	680.408	113	
3,4-Dinitrotoluene	300	309.322	103	
4-Amino-2,6-dinitrotoluene	600	655.281	109	
HMX	600	622.243	104	
Nitrobenzene	600	610.192	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

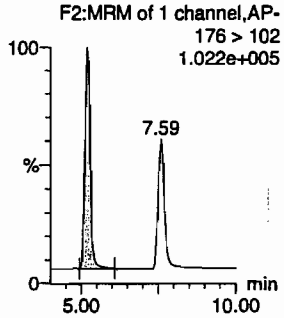
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

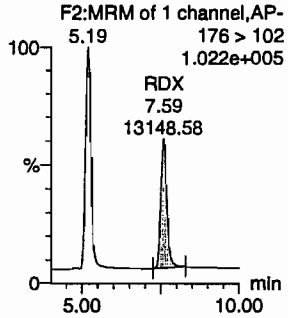
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304076a
Date: 06-Mar-2010
Time: 04:08:58
ID: WXX100304-07CCV
Vial: 1:1,B

MATT 3/6/10

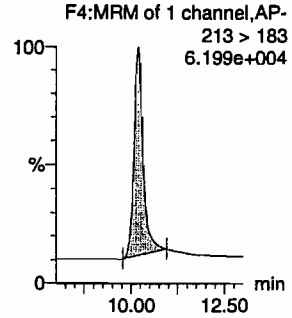
HMX



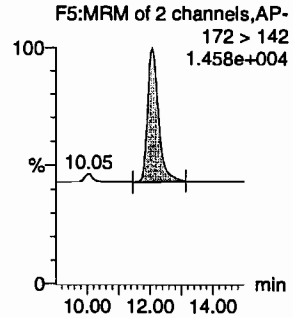
RDX



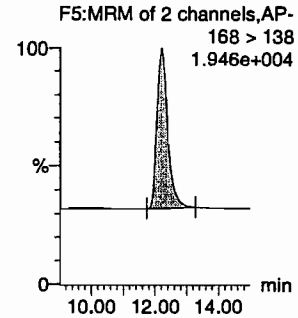
135-Trinitrobenzene



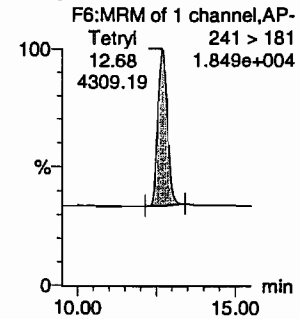
13-Dinitrobenzene-d4



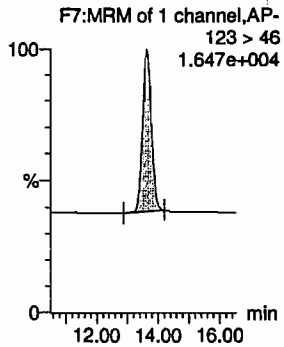
13-Dinitrobenzene



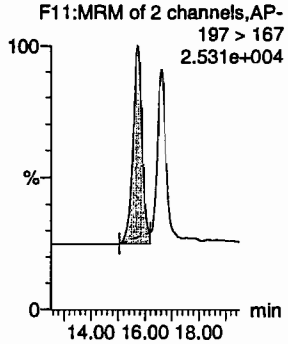
Tetryl



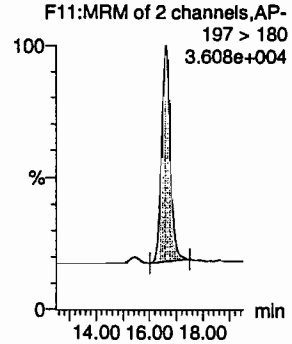
Nitrobenzene



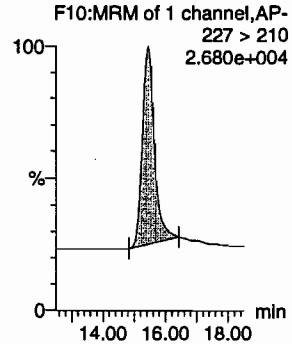
4-Amino-26-dinitrotoluene



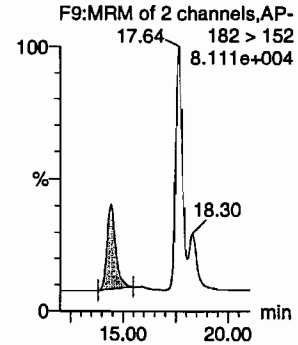
2-Amino-46-dinitrotoluene



246-Trinitrotoluene

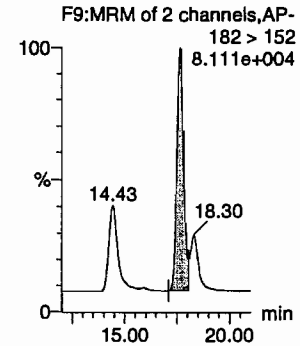


34-dinitrotoluene



Hmw 03/07/10

26-dinitrotoluene



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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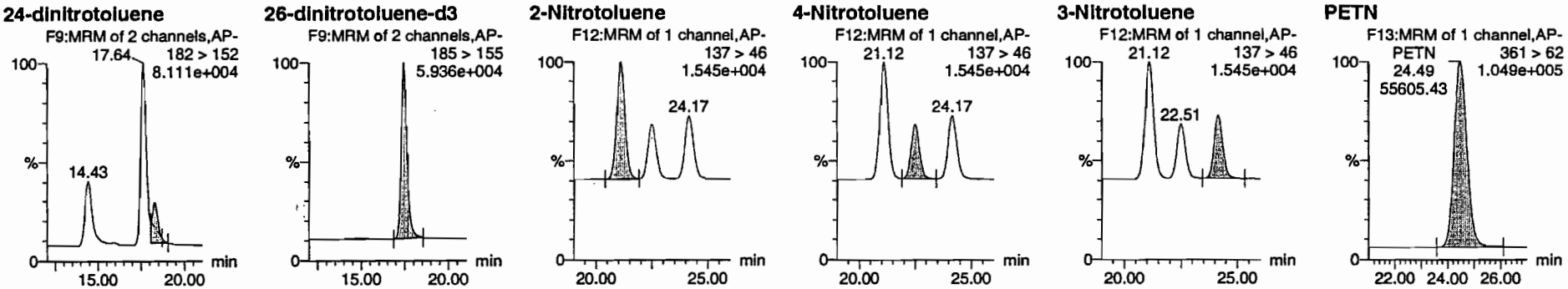
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	19726.965	3398.467	19726.965	2902.333	db			622.2430	103.7	3.7	4565.0
WXX100304-07CCV	RDX	176 > 102	7.59	13148.583	3398.467	13148.583	1934.487	bb			676.0635	112.7	12.7	2653.1
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.20	15593.780	3398.467	15593.780	2294.237	bb			589.2004	98.2	-1.8	1170.8
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3398.467		3398.467	3398.467	bb			483.8655	96.8	-3.2	717.3
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5111.909	3398.467	5111.909	752.090	bb			593.8514	99.0	-1.0	390.5
WXX100304-07CCV	Tetryl	241 > 181	12.68	4309.189	3398.467	4309.189	633.990	bb			623.0541	103.8	3.8	472.5
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3424.676	3398.467	3424.676	503.856	bb			610.1917	101.7	1.7	484.4
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	7606.306	21041.582	7606.306	180.745	MM	06-Mar-10	12:09:12	655.2814	109.2	9.2	352.5
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11599.599	21041.582	11599.599	275.635	bb			680.4083	113.4	13.4	146.4
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9062.394	21041.582	9062.394	215.345	bb			655.3263	109.2	9.2	258.1
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	12580.745	21041.582	12580.745	298.950	bb			309.3222	103.1	3.1	551.3
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	28165.873	21041.582	28165.873	669.291	MM	06-Mar-10	12:13:13	599.9688	100.0	-0.0	1564.5
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	7006.479	21041.582	7006.479	166.491	MM	06-Mar-10	12:17:36	604.0007	100.7	0.7	350.7
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21041.582		21041.582	21041.582	bb			511.6971	102.3	2.3	878.4
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	3952.942	21041.582	3952.942	93.932	bb			606.4066	101.1	1.1	552.8
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	1888.156	21041.582	1888.156	44.867	bb			588.2384	98.0	-2.0	258.2
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2259.582	21041.582	2259.582	53.693	bb			569.0585	94.8	-5.2	298.2
WXX100304-07CCV	PETN	361 > 62	24.49	55605.426	21041.582	55605.426	1321.322	bb			828.1129	138.0	38.0	21170.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 0408
Standard Number: WXX100304-07CCV
Data File: EXP0304076a

HMX	103.7
RDX	112.7
135-TNB	98.2
13-DNB	99.0
Tetryl	103.8
Nitrobenzene	101.7
4A-26-DNT	109.2
2A-46-DNT	113.4
246-TNT	109.2
34-DNT(surr)	103.1
26-DNT	100.0
24-DNT	100.7
2-NT	101.1
4-NT	98.0
3-NT	94.8
PETN	138.0
Total	1686.6
Average	105.4

MTP 3/6/10

HMM 03/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0304078a

Analysis Date: 06–MAR–10 05:08

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	48.824	122	
1,3–Dinitrobenzene–d4	500	497.56	100	
2,4,6–Trinitrotoluene	40	42.485	106	
2,4–Dinitrotoluene	40	37.142	93	
2,6–Dinitrotoluene	40	39.595	99	
2,6–Dinitrotoluene–d3	500	512.953	103	
2–Amino–4,6–dinitrotoluene	40	40.704	102	
3,4–Dinitrotoluene	20	18.958	95	
4–Amino–2,6–dinitrotoluene	40	44.438	111	
HMX	40	44.364	111	
Nitrobenzene	40	44.712	112	
PETN	40	54.239	136	*
RDX	40	46.673	117	
Tetryl	40	40.325	101	
m–Dinitrobenzene	40	38.944	97	
m–Nitrotoluene	40	43.213	108	
o–Nitrotoluene	40	39.546	99	
p–Nitrotoluene	40	36.291	91	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

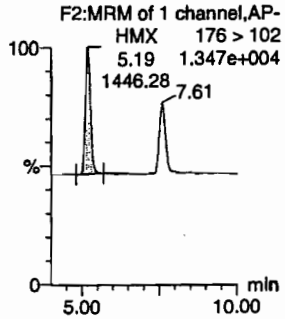
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

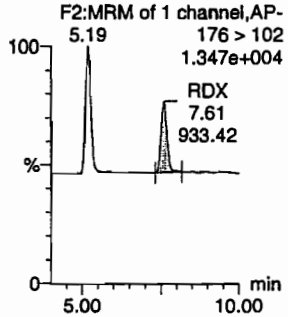
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304078a
Date: 06-Mar-2010
Time: 05:08:03
ID: WXX100304-08CRI
Vial: 1:1,C

MMT 3/6/10

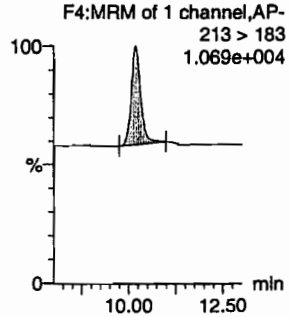
HMX



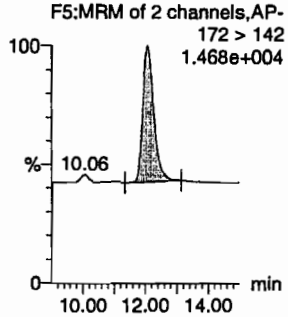
RDX



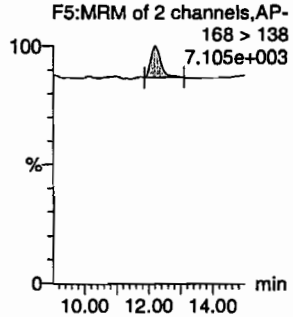
135-Trinitrobenzene



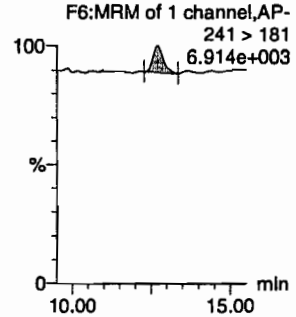
13-Dinitrobenzene-d4



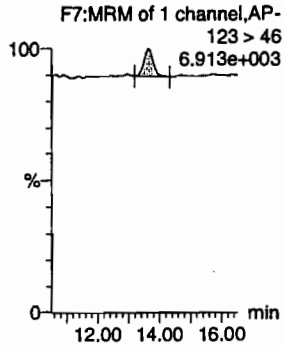
13-Dinitrobenzene



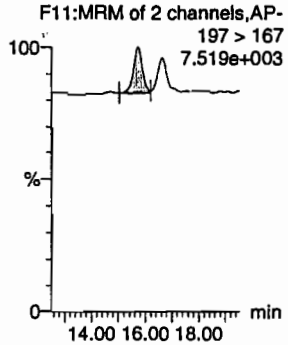
Tetryl



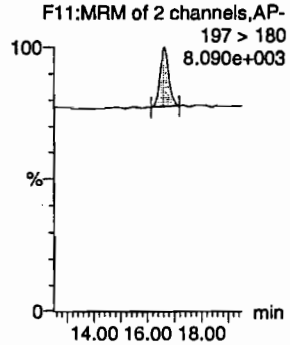
Nitrobenzene



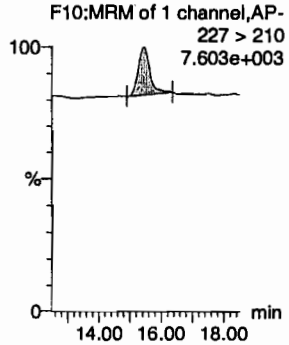
4-Amino-26-dinitrotoluene



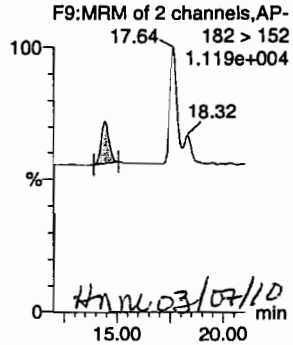
2-Amino-46-dinitrotoluene



246-Trinitrotoluene

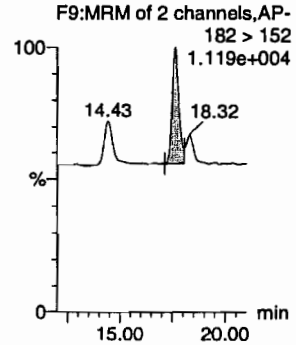


34-dinitrotoluene



HMM 03/07/10

26-dinitrotoluene



GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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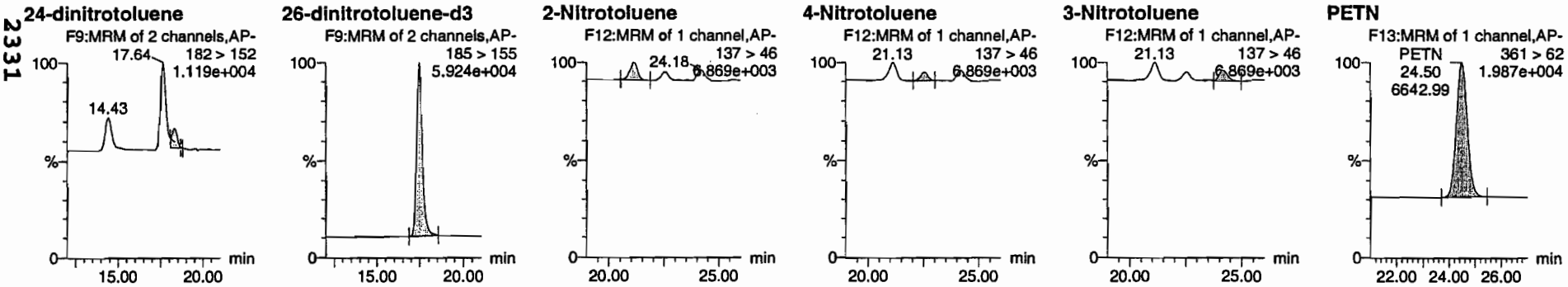
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1446.278	3494.653	1446.278	206.927	bb			44.3640	110.9	10.9	195.2
WXX100304-08CRI	RDX	176 > 102	7.61	933.425	3494.653	933.425	133.550	bb			46.6731	116.7	16.7	109.3
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1328.744	3494.653	1328.744	190.111	bb			48.8238	122.1	22.1	108.6
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3494.653		3494.653	3494.653	bb			497.5603	99.5	-0.5	251.0
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	344.722	3494.653	344.722	49.321	bb			38.9442	97.4	-2.6	30.0
WXX100304-08CRI	Tetryl	241 > 181	12.72	286.792	3494.653	286.792	41.033	bb			40.3252	100.8	0.8	21.0
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	258.047	3494.653	258.047	36.920	bb			44.7121	111.8	11.8	22.5
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	517.084	21093.240	517.084	12.257	MM	06-Mar-10	12:08:56	44.4376	111.1	11.1	51.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	695.617	21093.240	695.617	16.489	bb			40.7035	101.8	1.8	47.2
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	588.958	21093.240	588.958	13.961	bb			42.4848	106.2	6.2	69.7
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	772.950	21093.240	772.950	18.322	bb			18.9579	94.8	-5.2	60.5
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	1863.380	21093.240	1863.380	44.170	MM	06-Mar-10	12:13:06	39.5952	99.0	-1.0	165.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.32	431.908	21093.240	431.908	10.238	MM	06-Mar-10	12:17:44	37.1419	92.9	-7.1	38.4
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	21093.240		21093.240	21093.240	bb			512.9533	102.6	2.6	1620.2
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.13	258.417	21093.240	258.417	6.126	bb			39.5457	98.9	-1.1	64.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.55	116.773	21093.240	116.773	2.768	bb			36.2905	90.7	-9.3	29.5
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.18	172.009	21093.240	172.009	4.077	bb			43.2131	108.0	8.0	39.1
WXX100304-08CRI	PETN	361 > 62	24.50	6642.990	21093.240	6642.990	157.467	bb			54.2392	135.6	35.6	771.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	0508
Standard Number	WXX100304-08CRI
Data File	EXP0304078a

HMX	110.9
RDX	116.7
135-TNB	122.1
13-DNB	97.4
Tetryl	100.8
Nitrobenzene	111.8
4A-26-DNT	111.1
2A-46-DNT	101.8
246-TNT	106.2
34-DNT(surr)	94.8
26-DNT	99.0
24-DNT	92.9
2-NT	98.9
4-NT	90.7
3-NT	108.0
PETN	135.6
Total	1698.7
Average	106.2

MMT 3/6/10

HMM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02250013.wiff

Analysis Date: 25–FEB–10 11:38

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	106	106	
2,6–Diamino–4–nitrotoluene	100	98.5	99	
3,4–Dinitrotoluene	50	54.3	109	
3,5–Dinitroaniline	100	104	104	
TATB	100	102	102	
tris(o–cresyl) phosphate	100	102	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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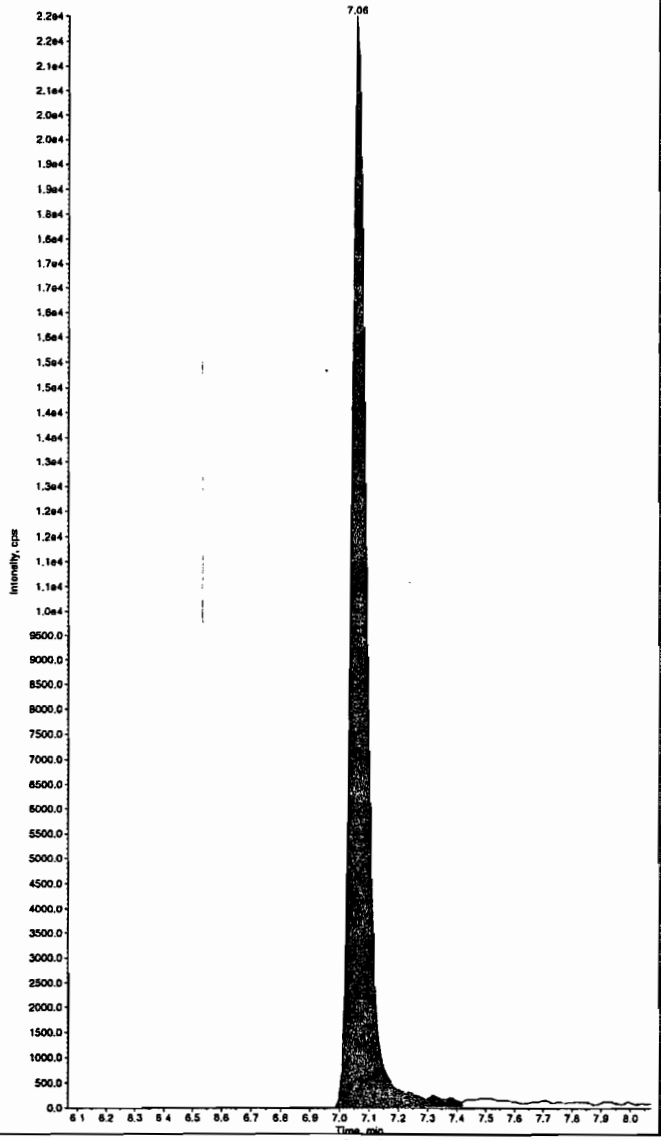
Lar 2/26/10

Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:38:12 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.06 min
Area: 8.55e+004 counts
Height: 21992.870 cps
Start Time: 6.97 min
End Time: 7.42 min

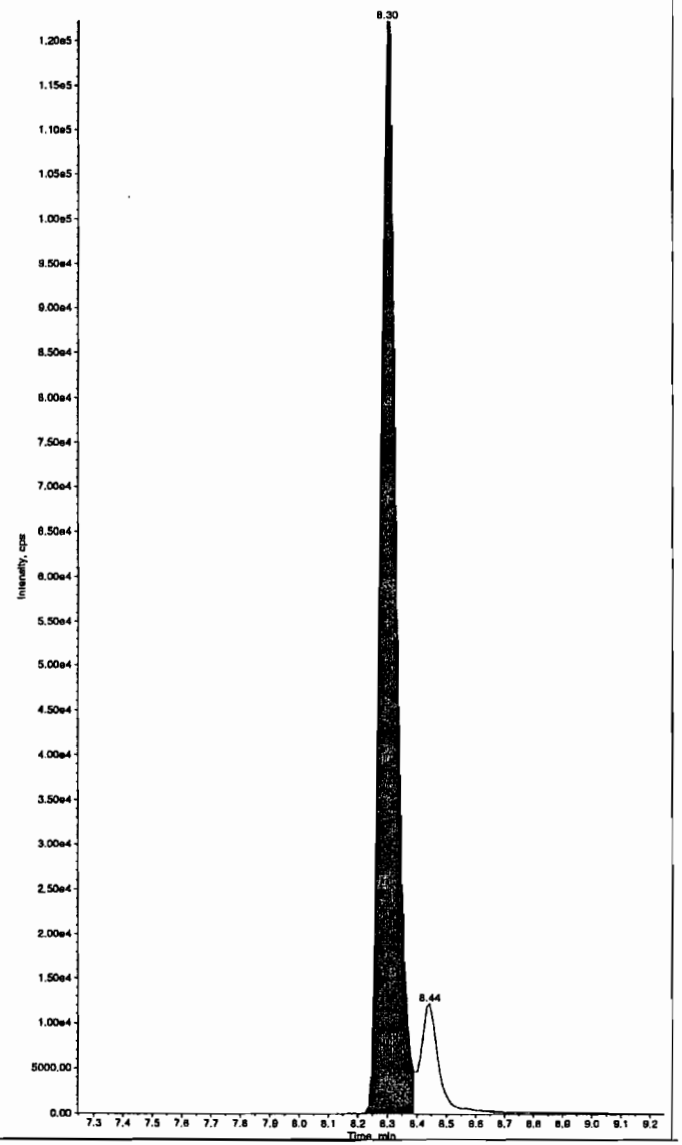


Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:38:12 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.25 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 4.79e+005 counts
Height: 122179.848 cps
Start Time: 8.21 min
End Time: 8.39 min



HLM 02/26/10

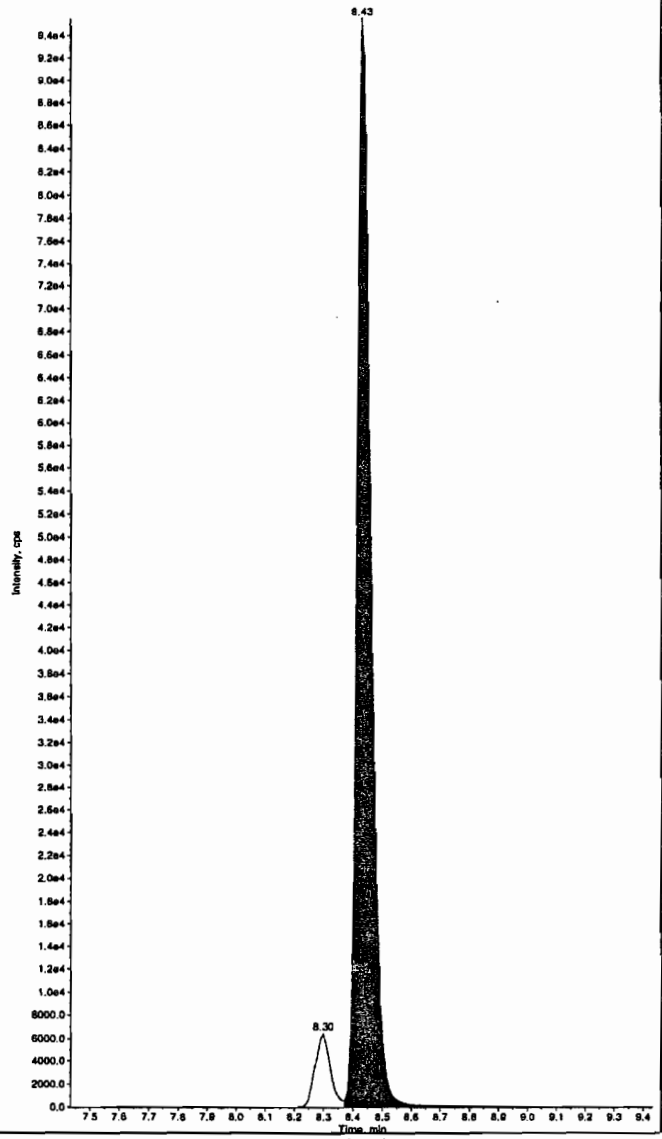
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 54.3 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:38:12 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.43 min
Area: 3.33e+005 counts
Height: 95486.351 cps
Start Time: 8.37 min
End Time: 8.92 min

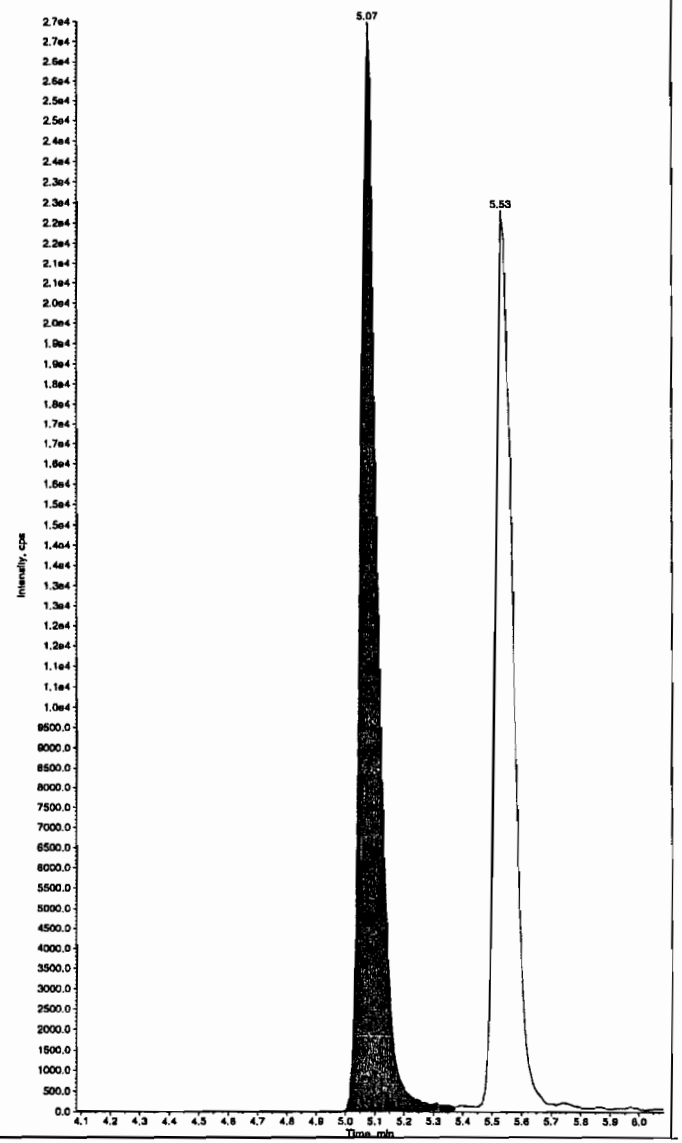


Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.5 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:38:12 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.07 min
Area: 1.14e+005 counts
Height: 27008.041 cps
Start Time: 4.97 min
End Time: 5.37 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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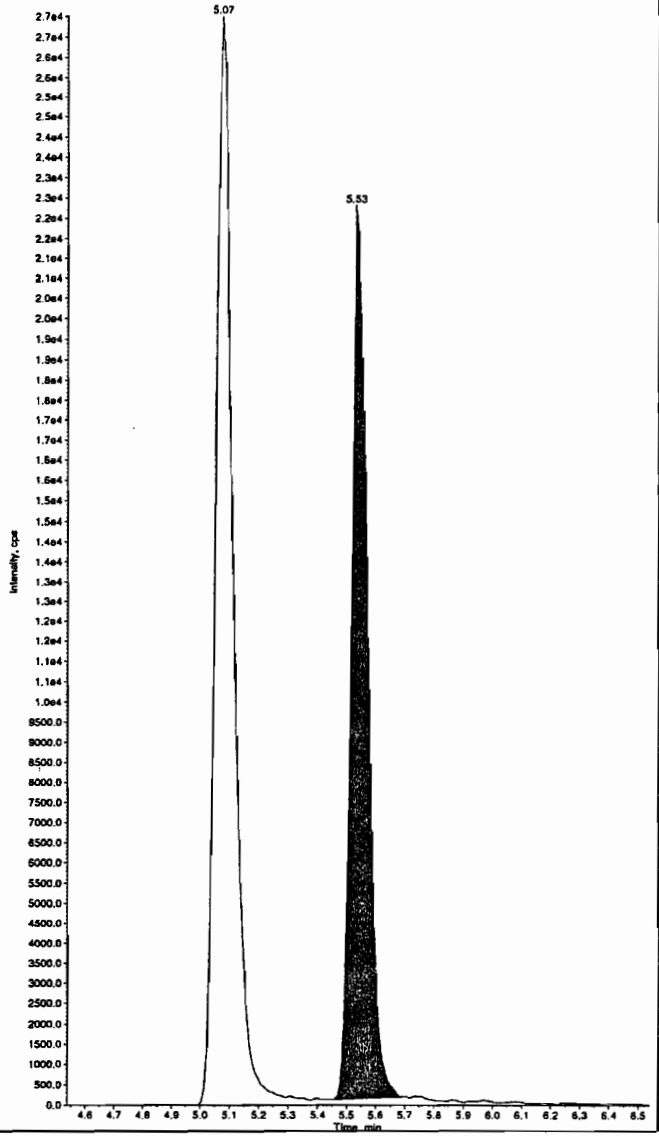
Sample Name: "WXX100225-27CRI" Sample ID: "]1]LER" File: "EXS02250013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:38:12 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.53 min
Area: 8.93e+004 counts
Height: 22193.666 cps
Start Time: 5.45 min
End Time: 5.69 min

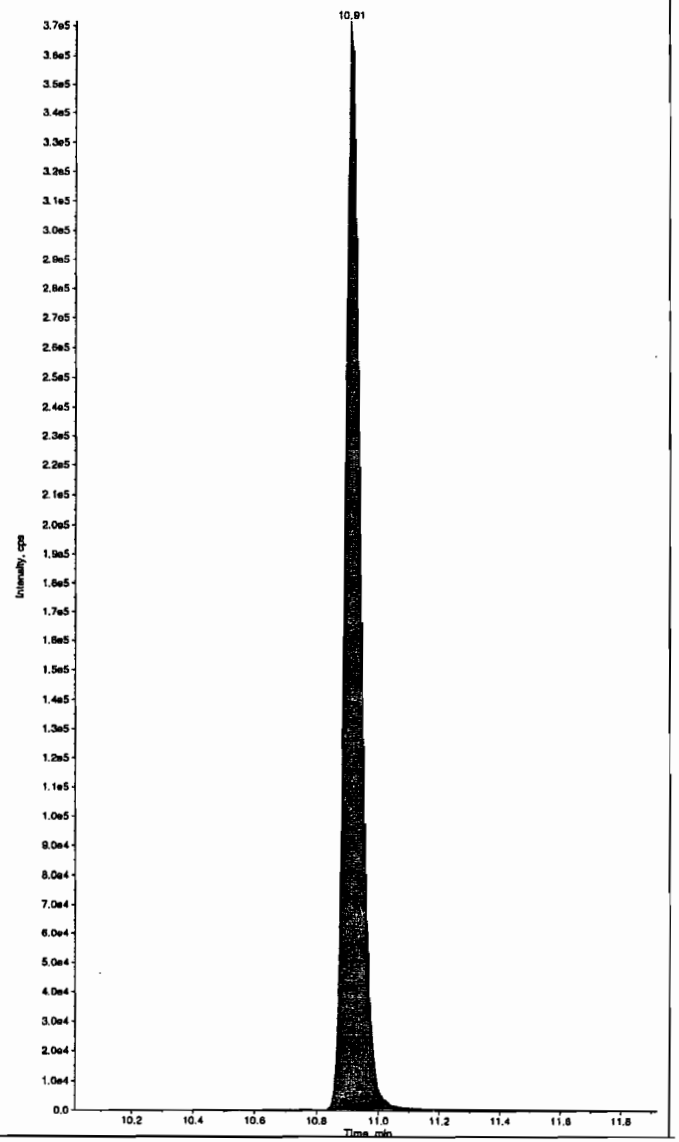


Sample Name: "WXX100225-27CRI" Sample ID: "]1]LER" File: "EXS02250013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:38:12 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.34e+006 counts
Height: 371130.493 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS02250024.wiff

Analysis Date: 25–FEB–10 14:31

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	516	103	
2,6–Diamino–4–nitrotoluene	500	546	109	
3,4–Dinitrotoluene	250	258	103	
3,5–Dinitroaniline	500	590	118	
TATB	500	491	98	
tris(o–cresyl) phosphate	500	511	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

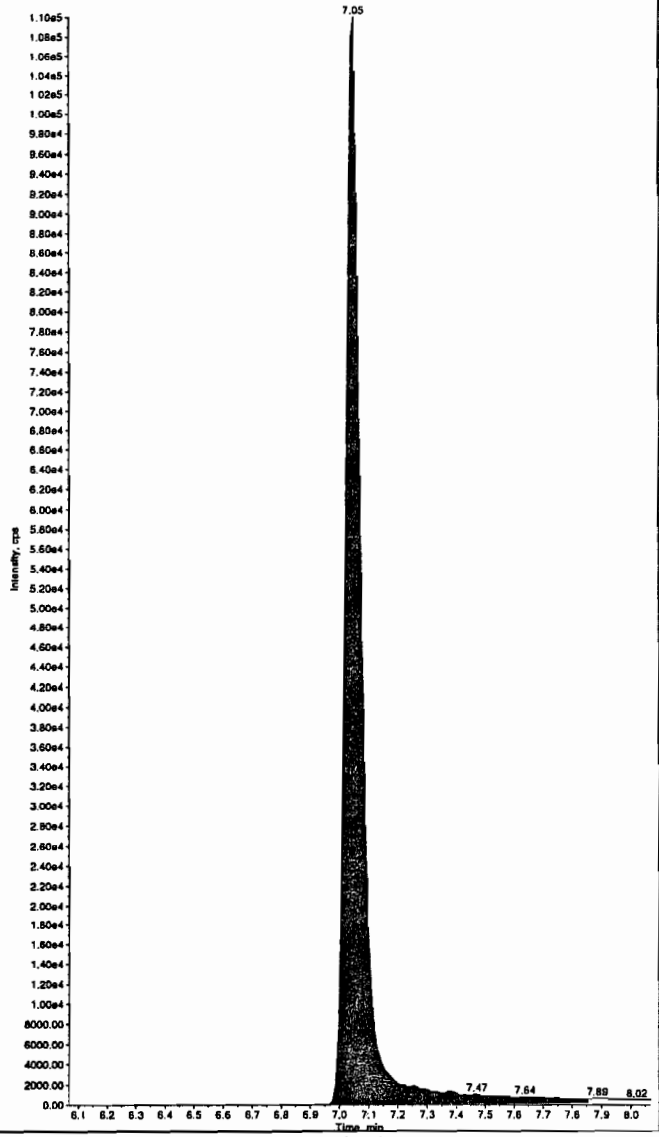
LER 2/26/10

Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:31:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.05 min
Area: 4.60e+005 counts
Height: 110113.503 cps
Start Time: 6.94 min
End Time: 7.85 min

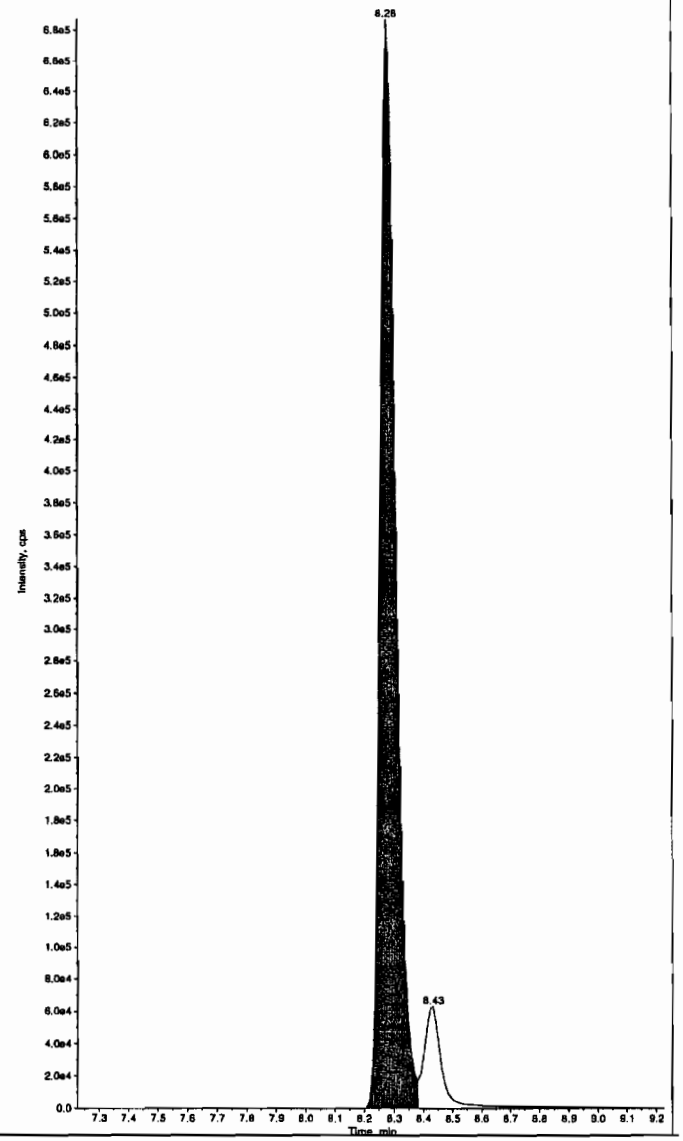


Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 590. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:31:10 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.28 min
Area: 2.65e+006 counts
Height: 686652.954 cps
Start Time: 8.19 min
End Time: 8.38 min



dmm 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

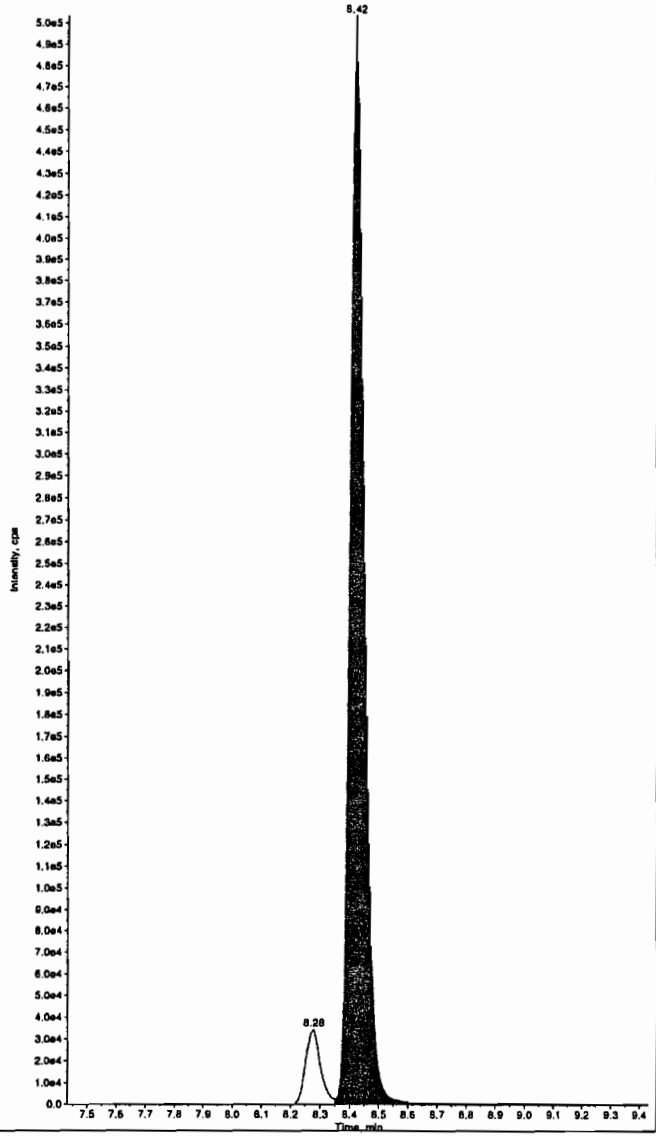
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 258. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:31:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.42 min
Area: 1.75e+006 counts
Height: 503260.010 cps
Start Time: 8.35 min
End Time: 8.75 min

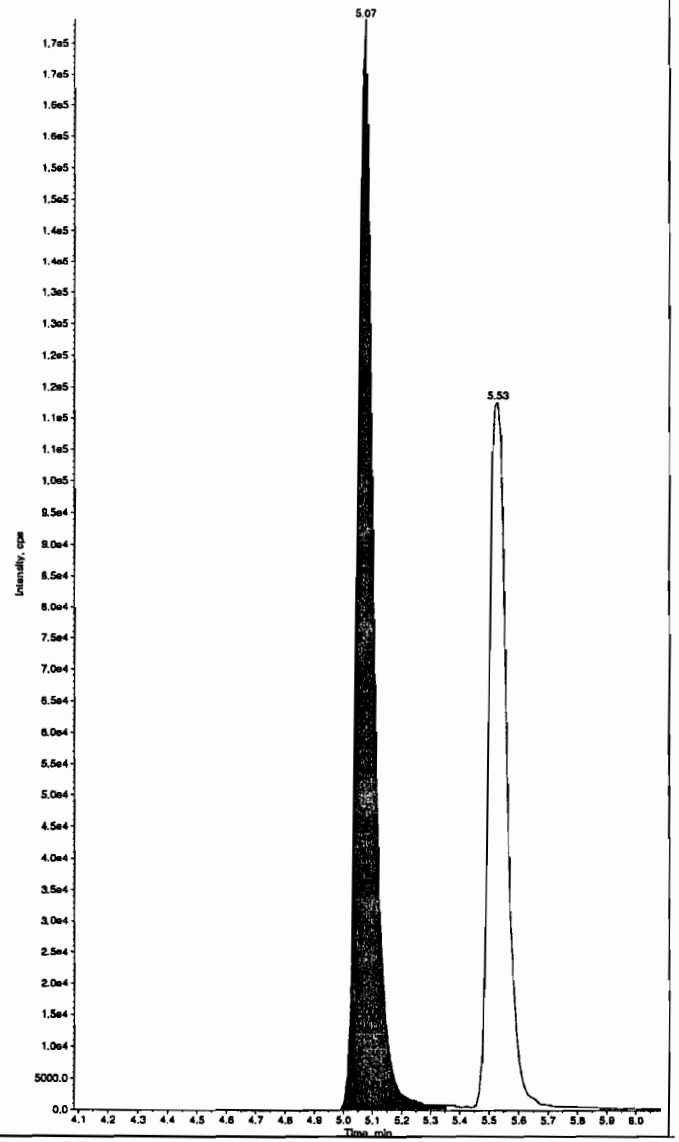


Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 546. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:31:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.07 min
Area: 7.10e+005 counts
Height: 173775.421 cps
Start Time: 4.97 min
End Time: 5.35 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

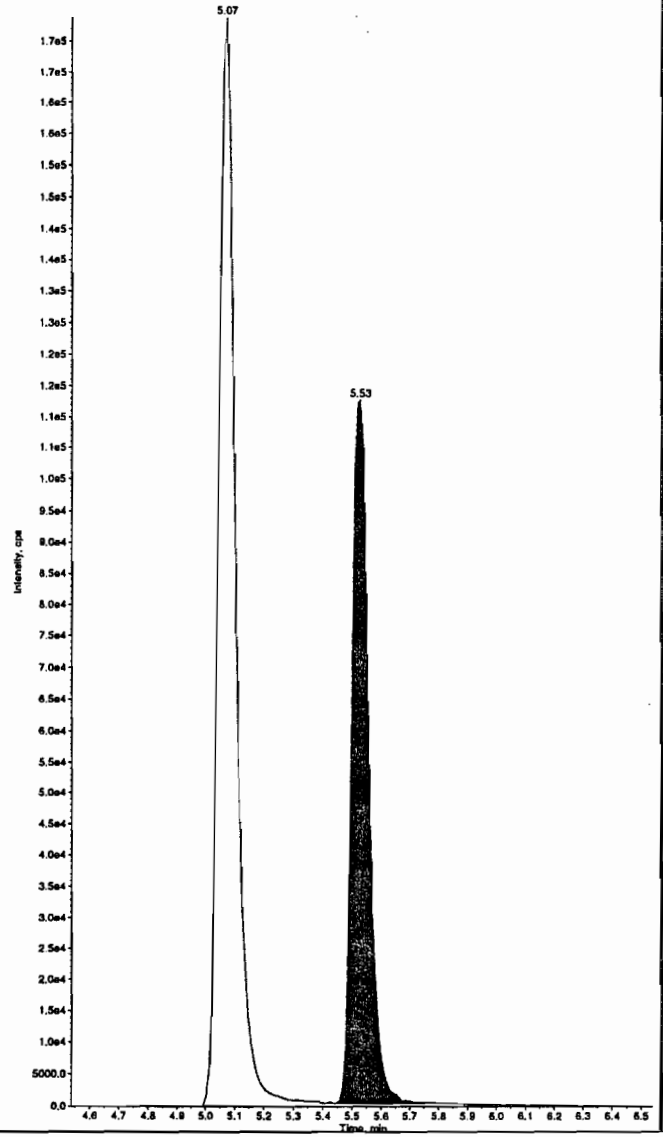
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 516. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:31:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.53 min
Area: 4.69e+005 counts
Height: 112240.364 cps
Start Time: 5.44 min
End Time: 5.78 min

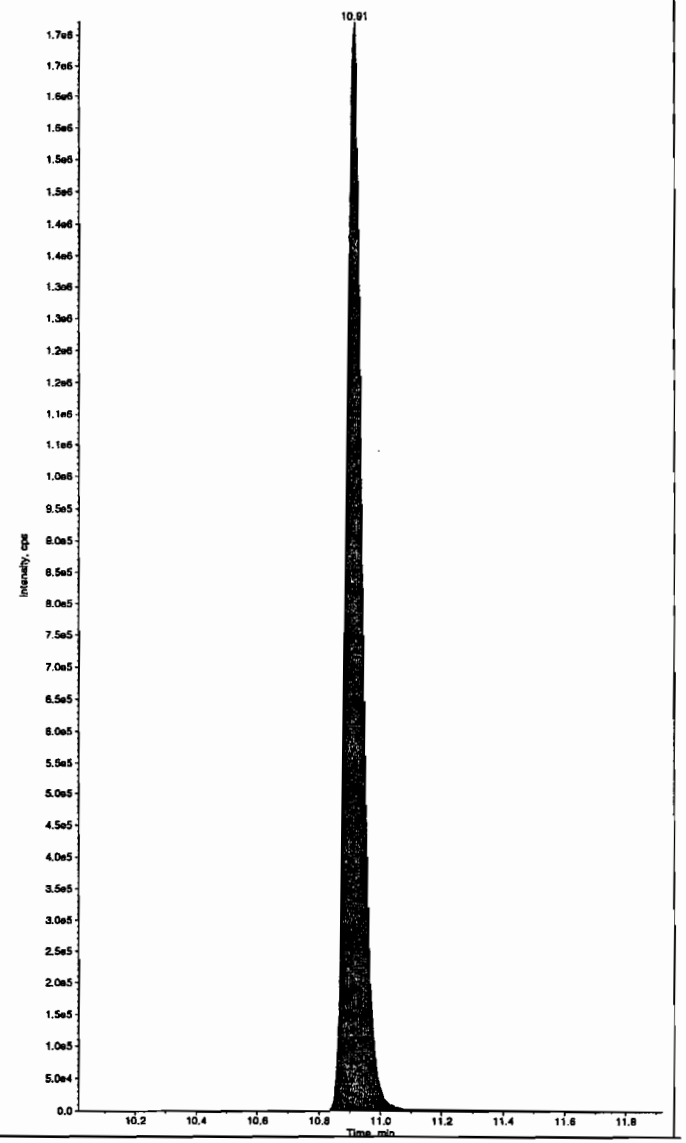


Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 511. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 2:31:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.37e+006 counts
Height: 1722043.091 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02250026.wiff

Analysis Date: 25–FEB–10 15:02

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	110	110	
2,6–Diamino–4–nitrotoluene	100	107	107	
3,4–Dinitrotoluene	50	54	108	
3,5–Dinitroaniline	100	107	107	
TATB	100	99.2	99	
tris(o–cresyl) phosphate	100	105	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

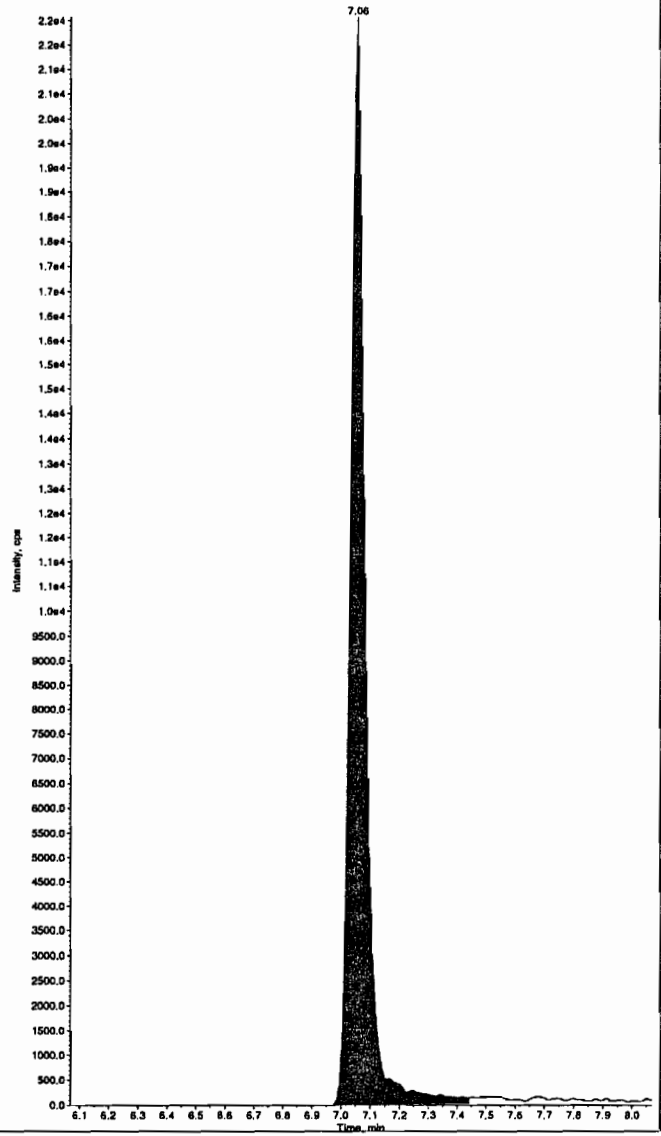
Lan 2/26/10

Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.2 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:02:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.06 min
Area: 8.27e+004 counts
Height: 22066.185 cps
Start Time: 6.97 min
End Time: 7.44 min

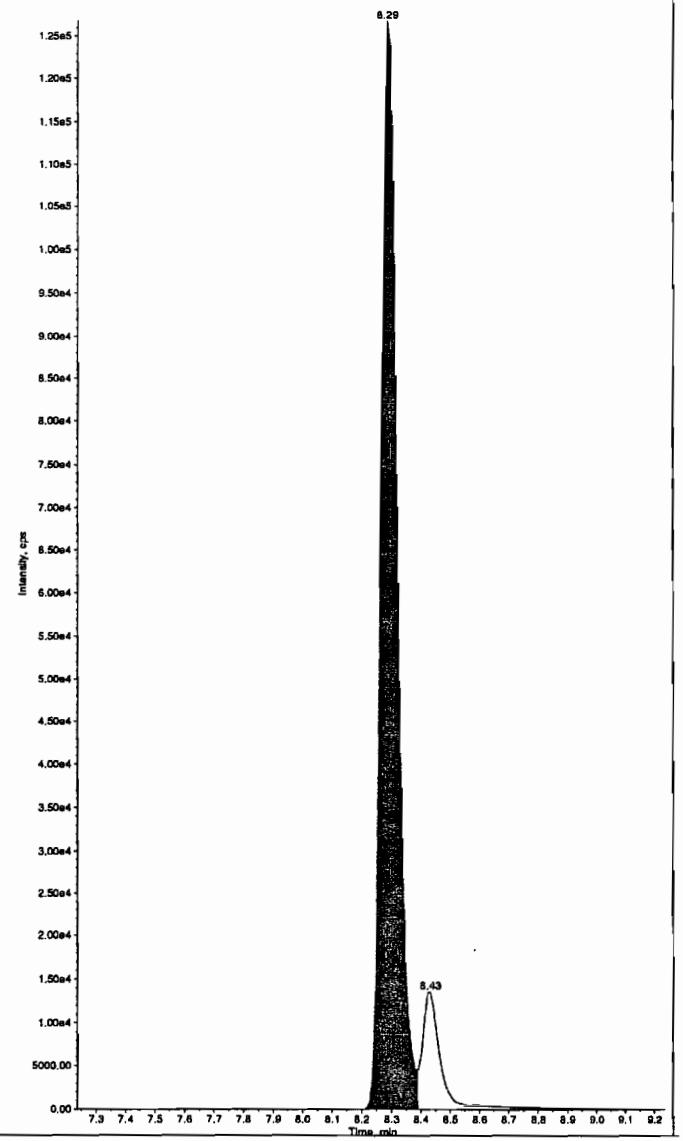


Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:02:45 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 4.95e+005 counts
Height: 126867.661 cps
Start Time: 8.20 min
End Time: 8.39 min



HMM 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

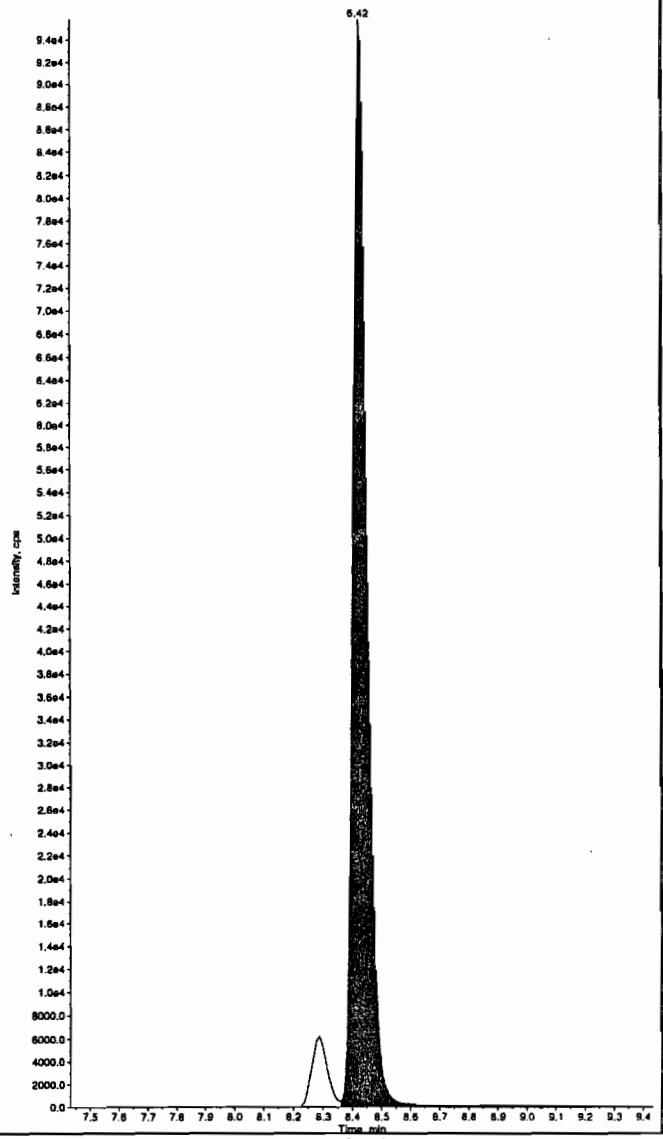
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 54.0 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:02:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.42 min
Area: 3.32e+005 counts
Height: 95772.018 cps
Start Time: 8.36 min
End Time: 8.74 min

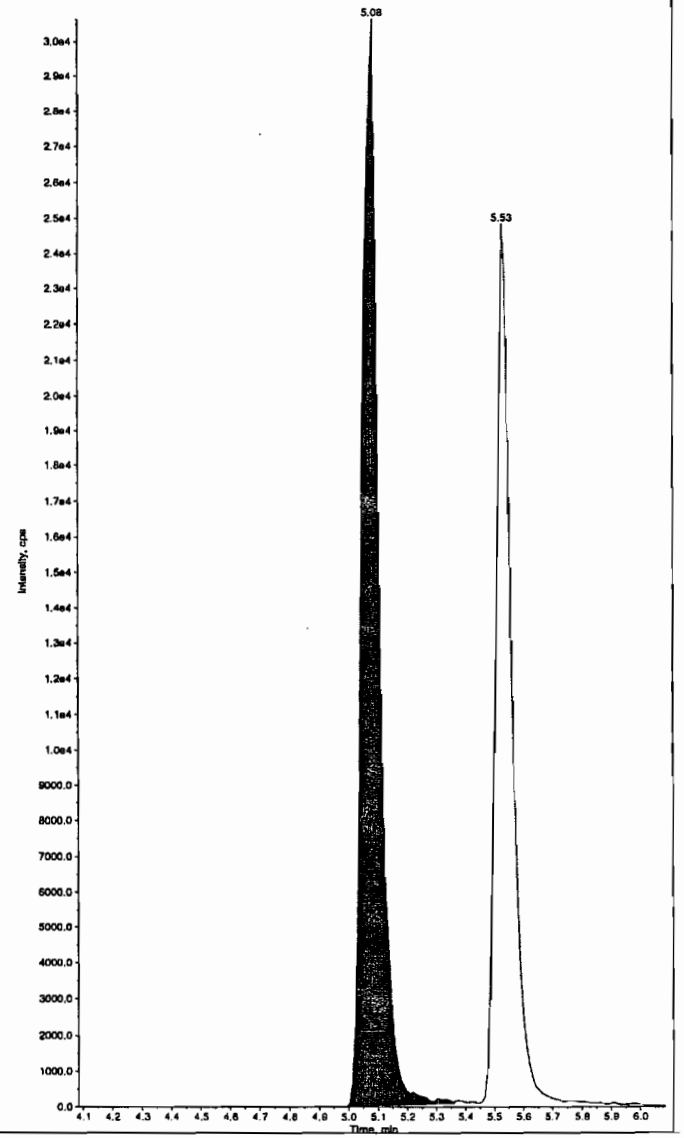


Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:02:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 1.25e+005 counts
Height: 30611.389 cps
Start Time: 4.96 min
End Time: 5.36 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

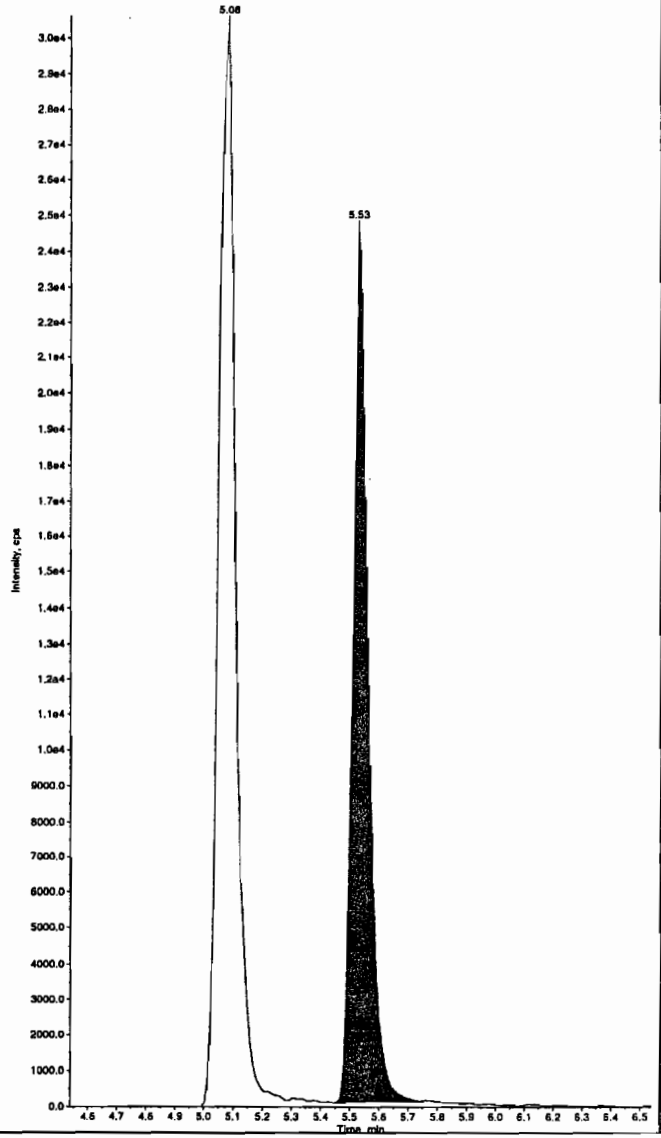
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:02:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.53 min
Area: 9.30e+004 counts
Height: 24709.000 cps
Start Time: 5.45 min
End Time: 5.74 min

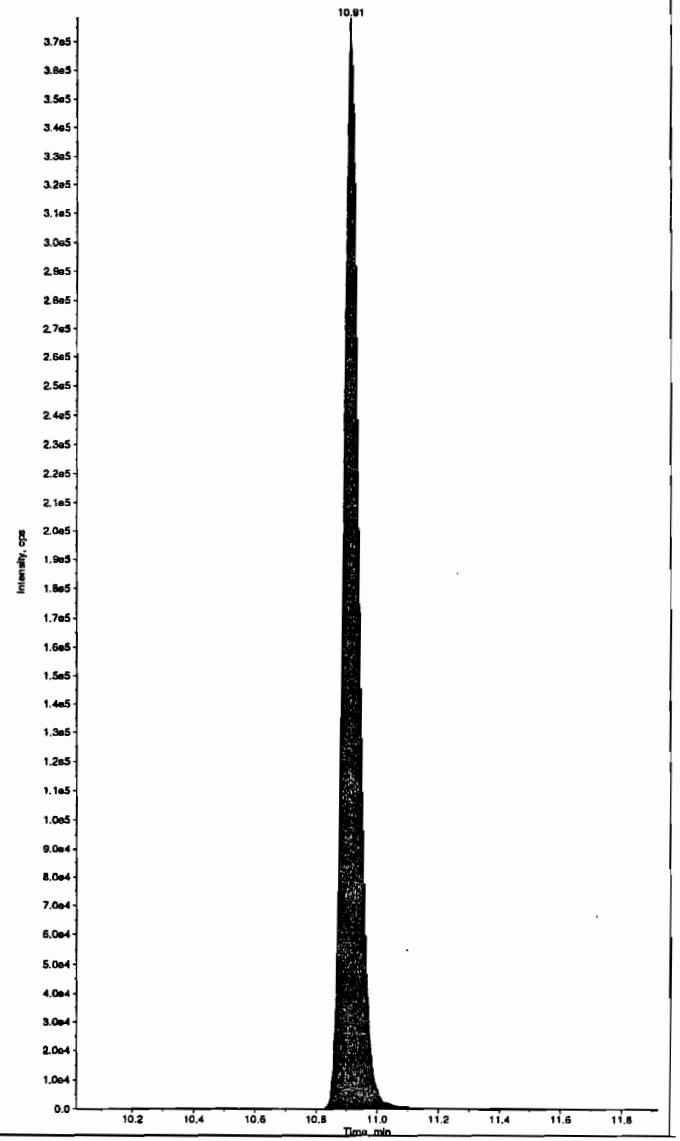


Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 3:02:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.38e+006 counts
Height: 378467.651 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02250037.wiff

Analysis Date: 25–FEB–10 17:55

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	565	113	
2,6–Diamino–4–nitrotoluene	500	488	98	
3,4–Dinitrotoluene	250	233	93	
3,5–Dinitroaniline	500	528	106	
TATB	500	484	97	
tris(o–cresyl) phosphate	500	485	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

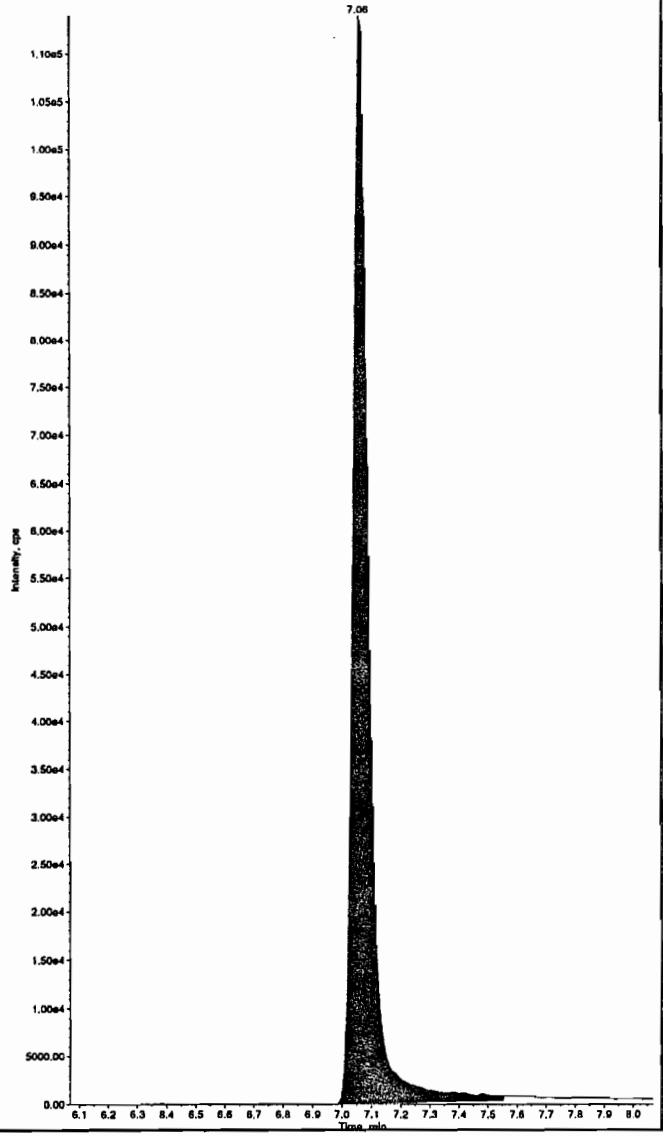
Before Olen 2/26/10

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 484. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 5:55:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.06 min
Area: 4.54e+005 counts
Height: 113980.713 cps
Start Time: 6.98 min
End Time: 7.55 min

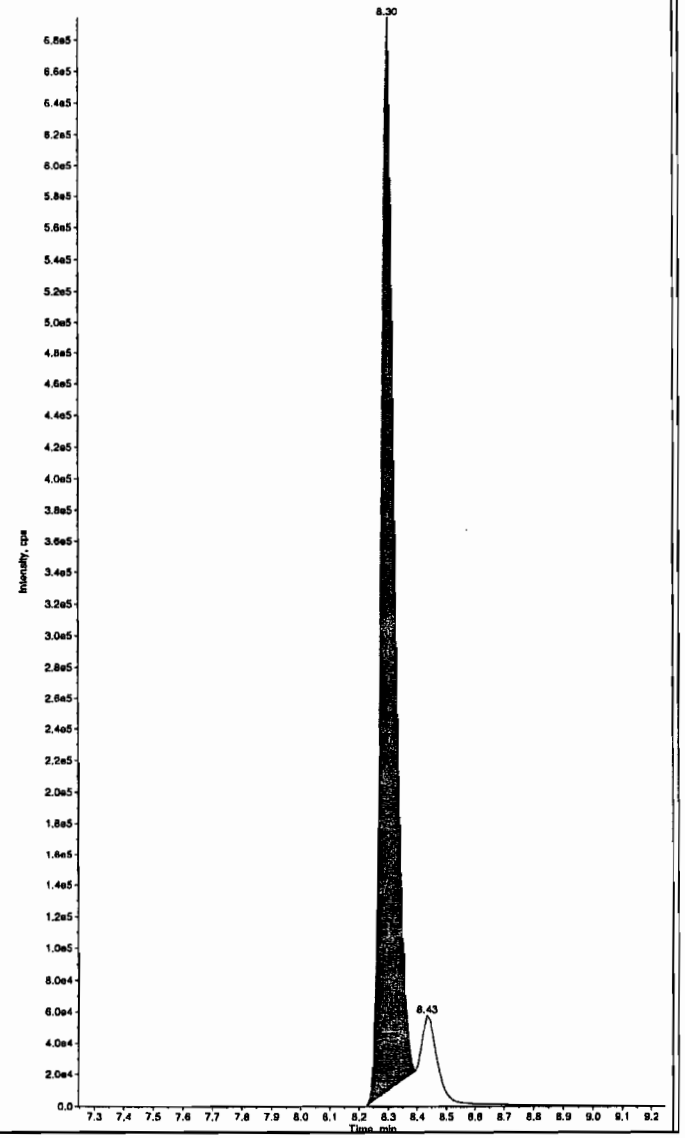


Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250037.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 5:55:57 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.25 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 2.29e+006 counts
Height: 684767.334 cps
Start Time: 8.23 min
End Time: 8.39 min



HMM 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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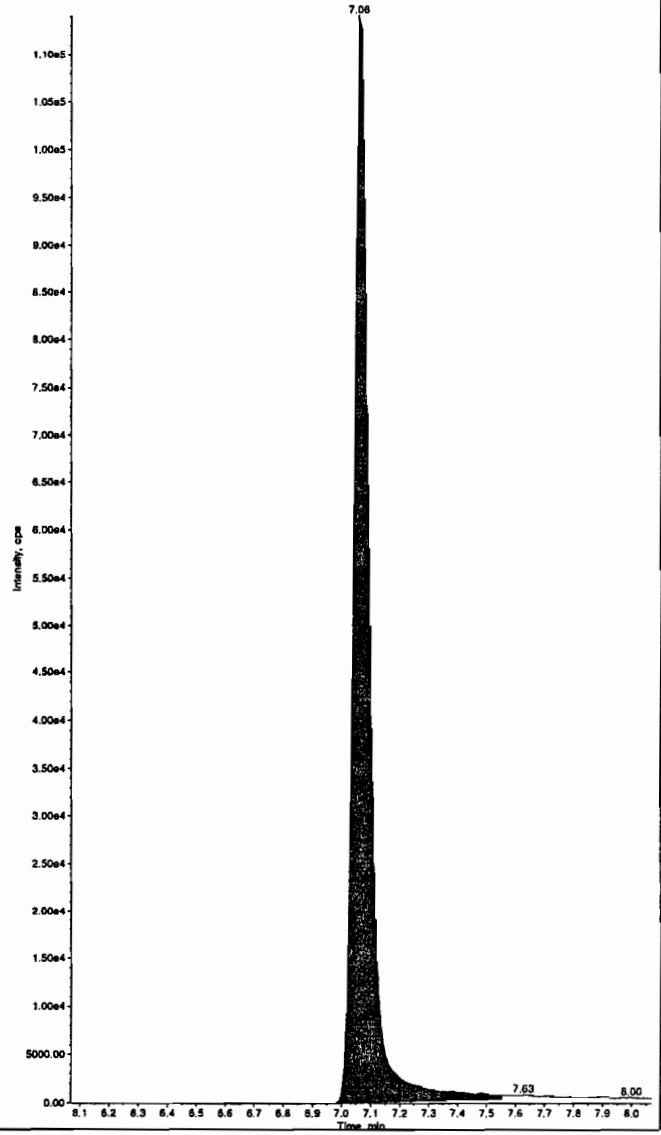
after Chan 2/26/10

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 484. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 5:55:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.06 min
Area: 4.54e+005 counts
Height: 113980.713 cps
Start Time: 6.98 min
End Time: 7.55 min

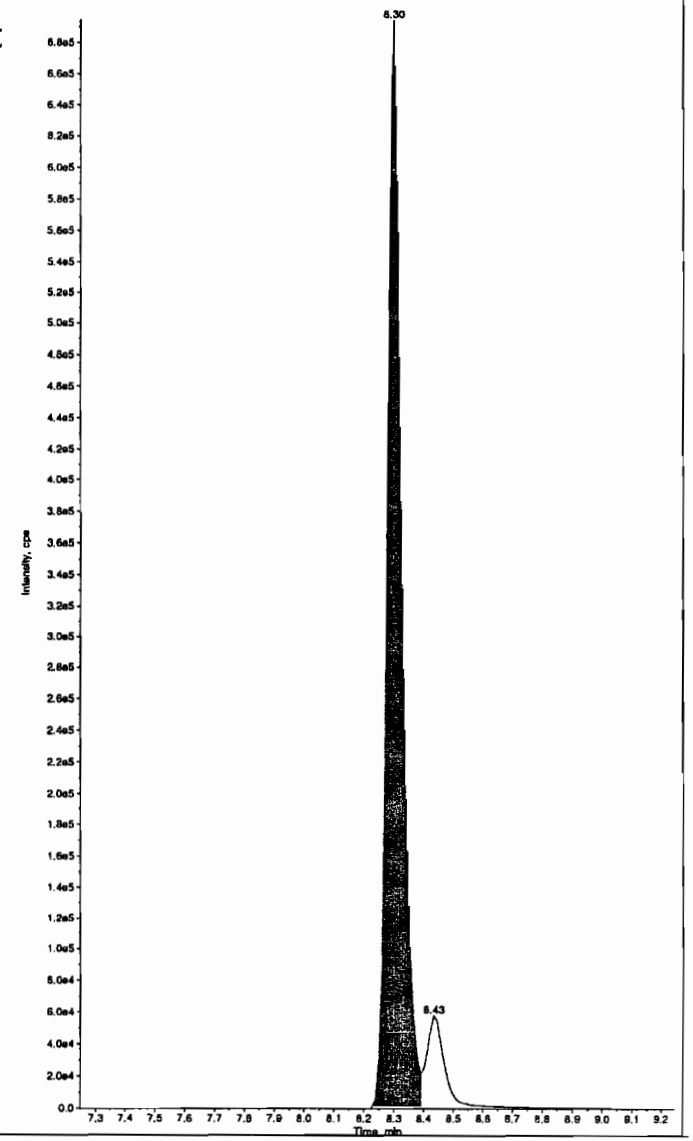


Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 528. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 5:55:57 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.25 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.30 min
Area: 2.39e+006 counts
Height: 694672.502 cps
Start Time: 8.23 min
End Time: 8.39 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

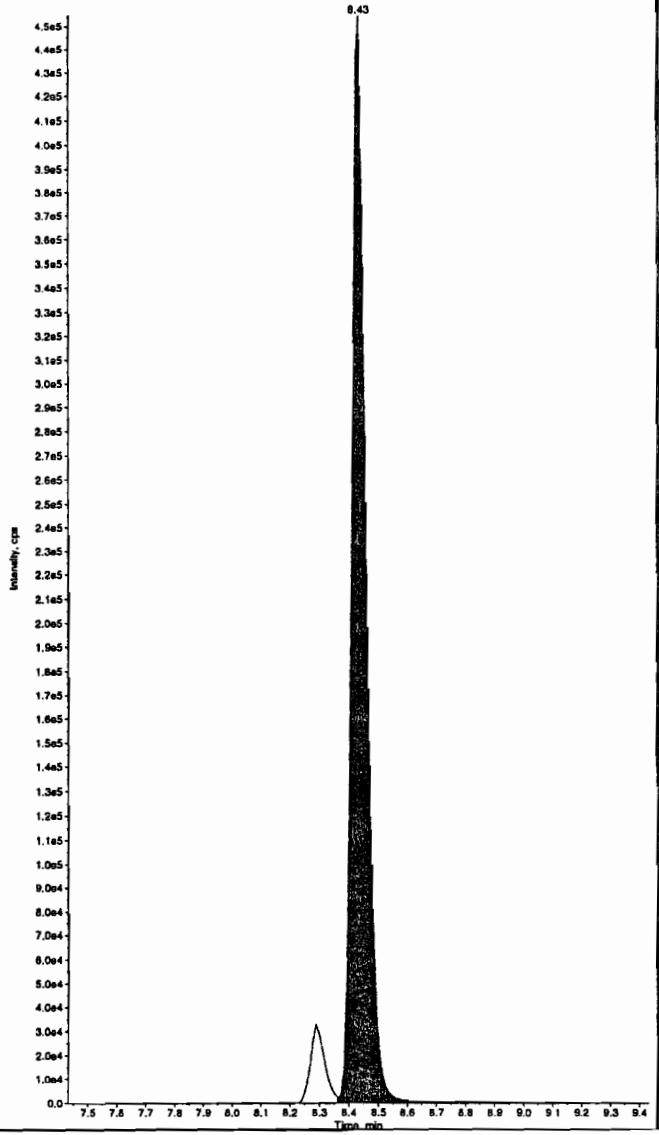
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 233. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 5:55:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.43 min
Area: 1.58e+006 counts
Height: 454549.683 cps
Start Time: 8.36 min
End Time: 8.76 min

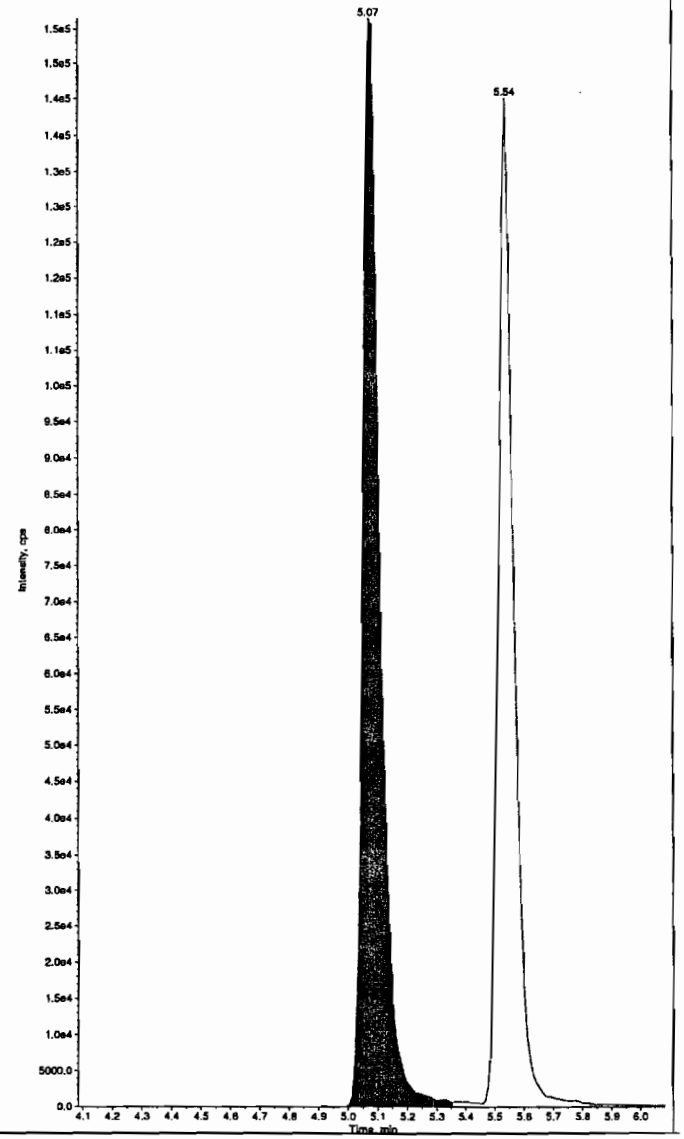


Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 488. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 5:55:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.07 min
Area: 6.35e+005 counts
Height: 151508.423 cps
Start Time: 4.98 min
End Time: 5.35 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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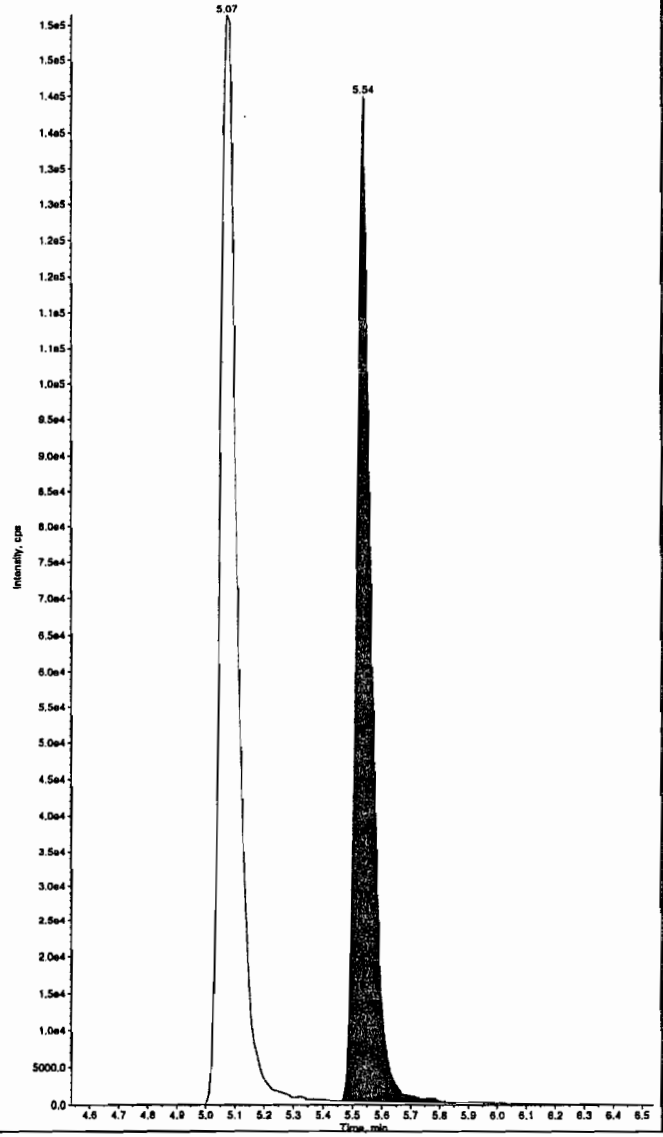
Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 565. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 5:55:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.54 min
Area: 5.14e+005 counts
Height: 139586.105 cps
Start Time: 5.46 min
End Time: 5.85 min

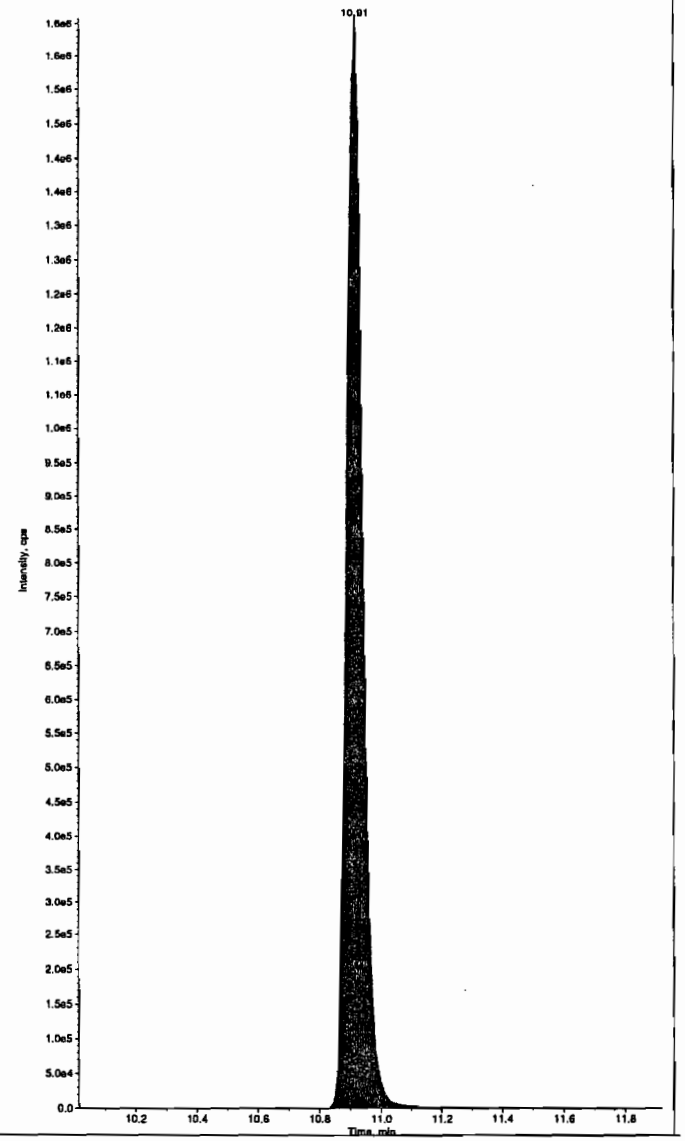


Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 485. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 5:55:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.06e+006 counts
Height: 1607917.603 cps
Start Time: 10.8 min
End Time: 11.3 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02250039.wiff

Analysis Date: 25-FEB-10 18:27

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	110	110	
2,6-Diamino-4-nitrotoluene	100	99.5	100	
3,4-Dinitrotoluene	50	54.5	109	
3,5-Dinitroaniline	100	105	105	
TATB	100	101	101	
tris(o-cresyl) phosphate	100	104	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

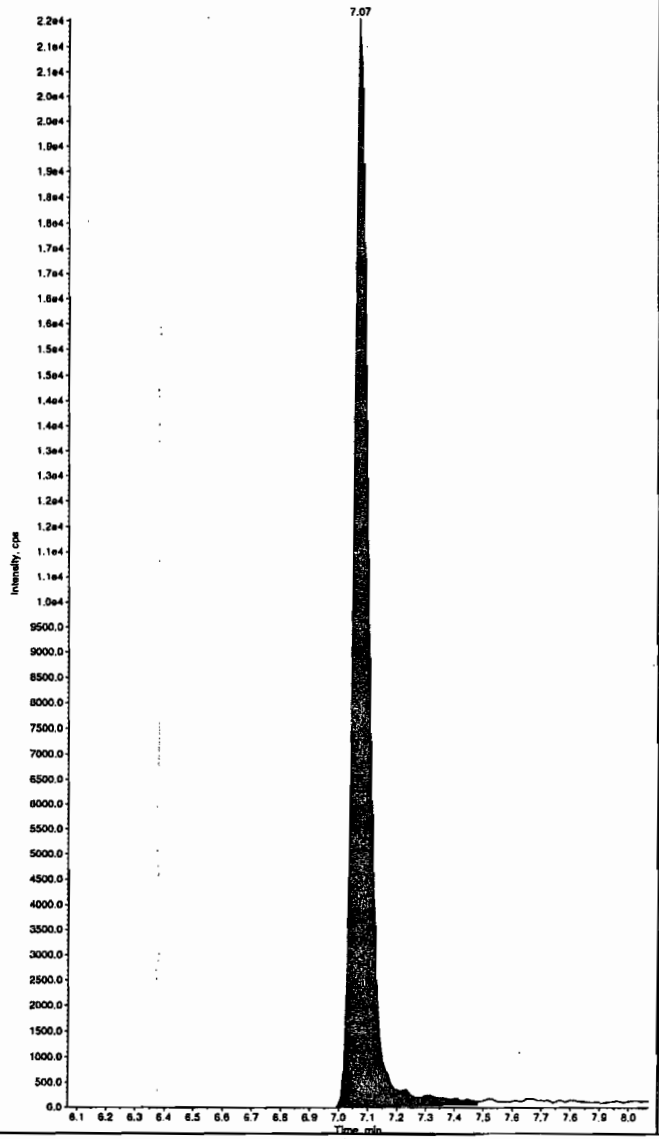
Kan 2/26/10

Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250039.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:27:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.07 min
Area: 8.47e+004 counts
Height: 21543.295 cps
Start Time: 6.99 min
End Time: 7.48 min

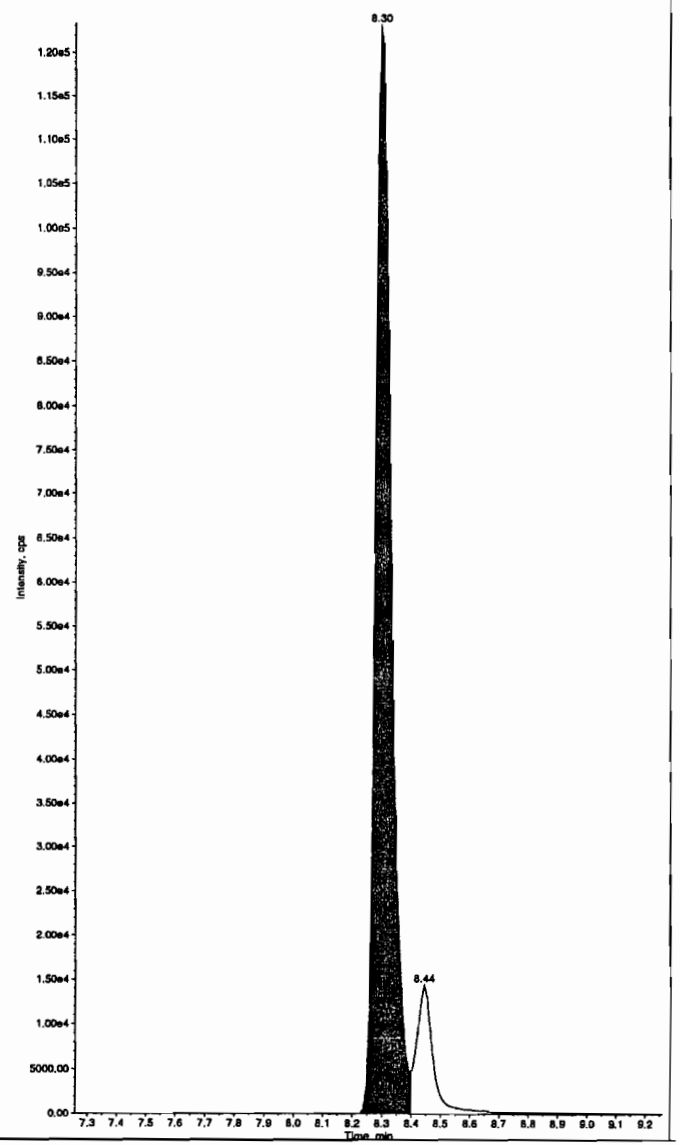


Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:27:29 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 4.84e+005 counts
Height: 123283.913 cps
Start Time: 8.19 min
End Time: 8.40 min



Hmm 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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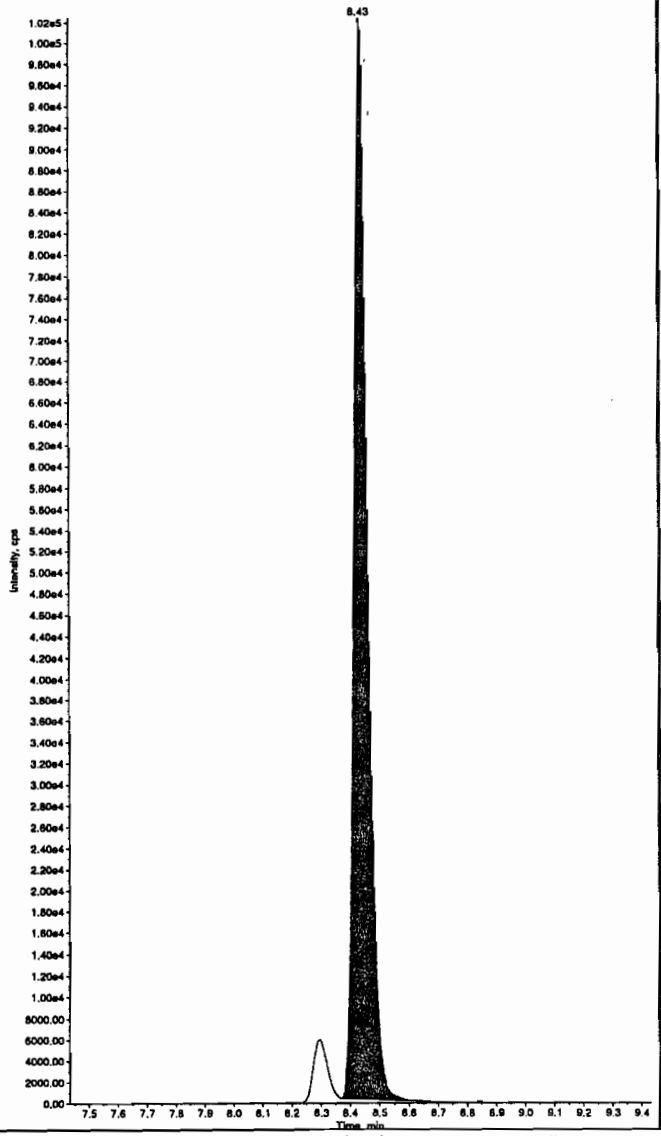
Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250039.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 54.5 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:27:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.43 min
Area: 3.35e+005 counts
Height: 102114.799 cps
Start Time: 8.37 min
End Time: 8.68 min

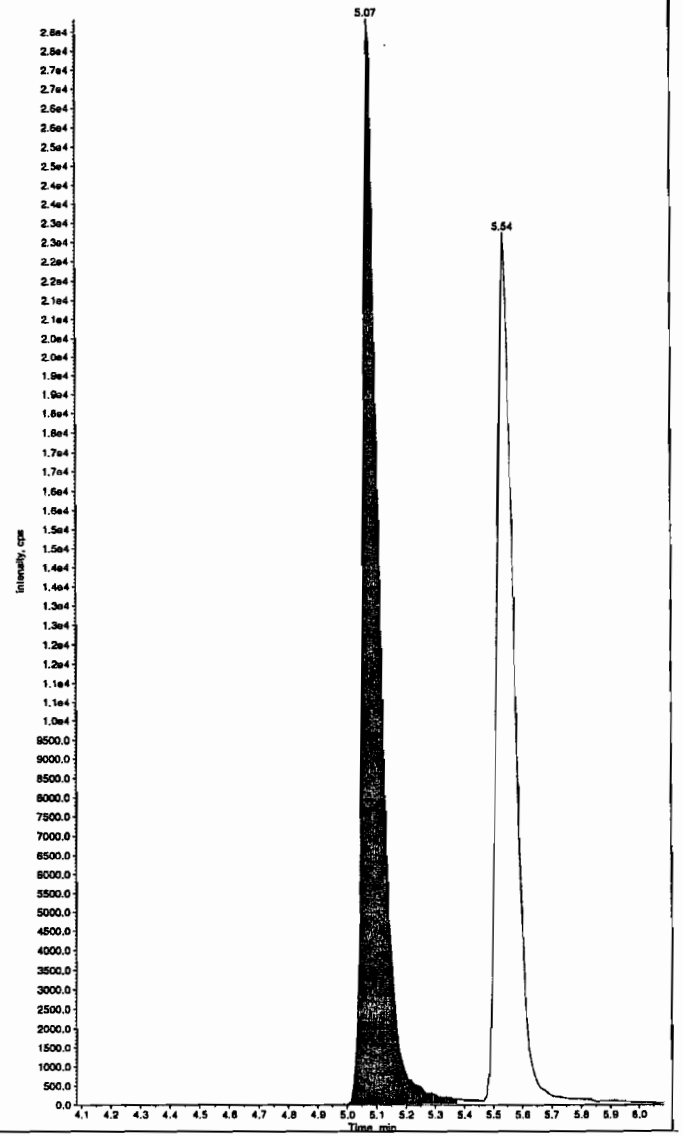


Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.5 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:27:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.07 min
Area: 1.15e+005 counts
Height: 28347.853 cps
Start Time: 4.94 min
End Time: 5.37 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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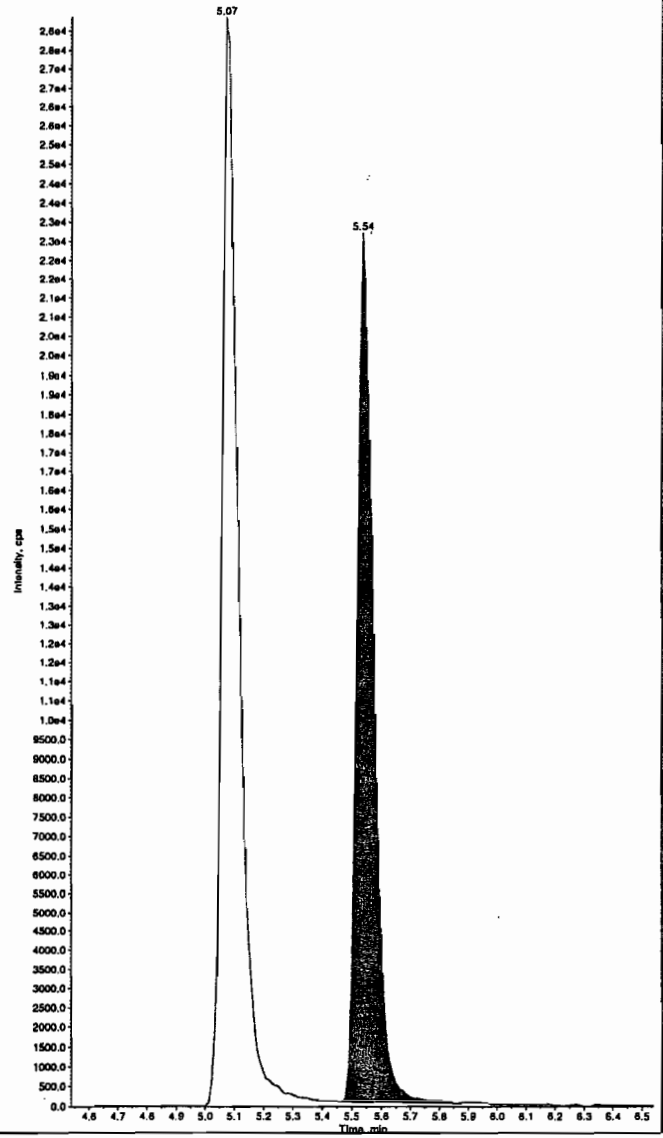
Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:27:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.54 min
Area: 9.29e+004 counts
Height: 22629.538 cps
Start Time: 5.46 min
End Time: 5.86 min

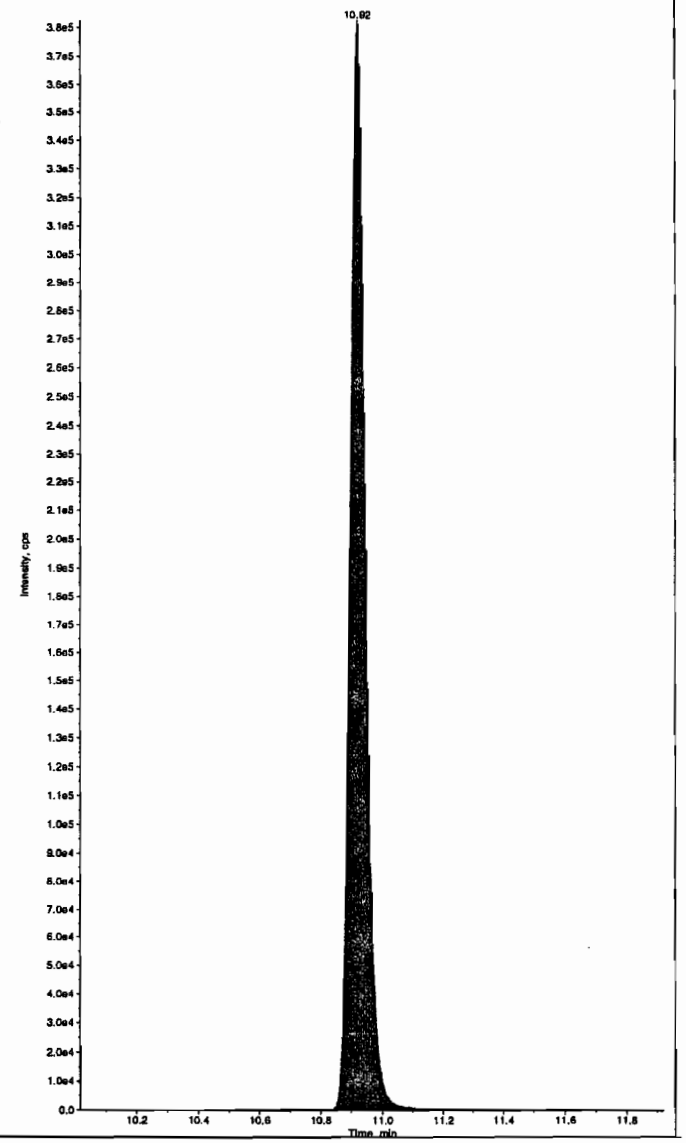


Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 6:27:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.37e+006 counts
Height: 382102.875 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02250043.wiff

Analysis Date: 25–FEB–10 19:30

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	544	109	
2,6–Diamino–4–nitrotoluene	500	530	106	
3,4–Dinitrotoluene	250	242	97	
3,5–Dinitroaniline	500	534	107	
TATB	500	487	97	
tris(o–cresyl) phosphate	500	512	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

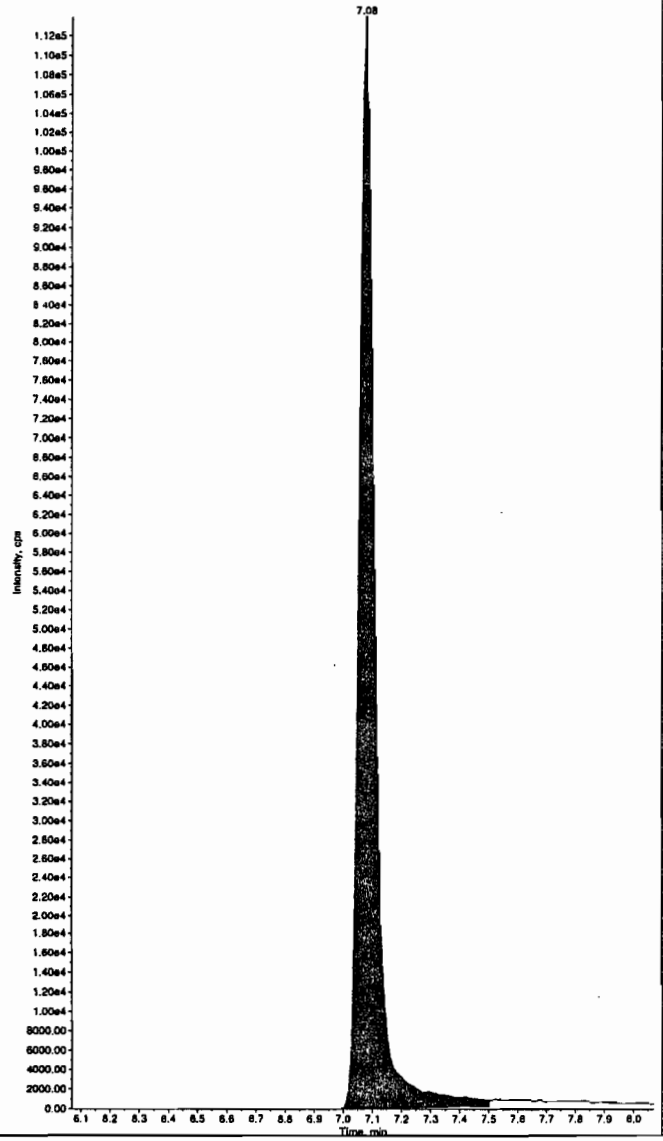
Lan 2/26/10

Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 487. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:30:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.08 min
Area: 4.56e+005 counts
Height: 113924.637 cps
Start Time: 6.98 min
End Time: 7.50 min

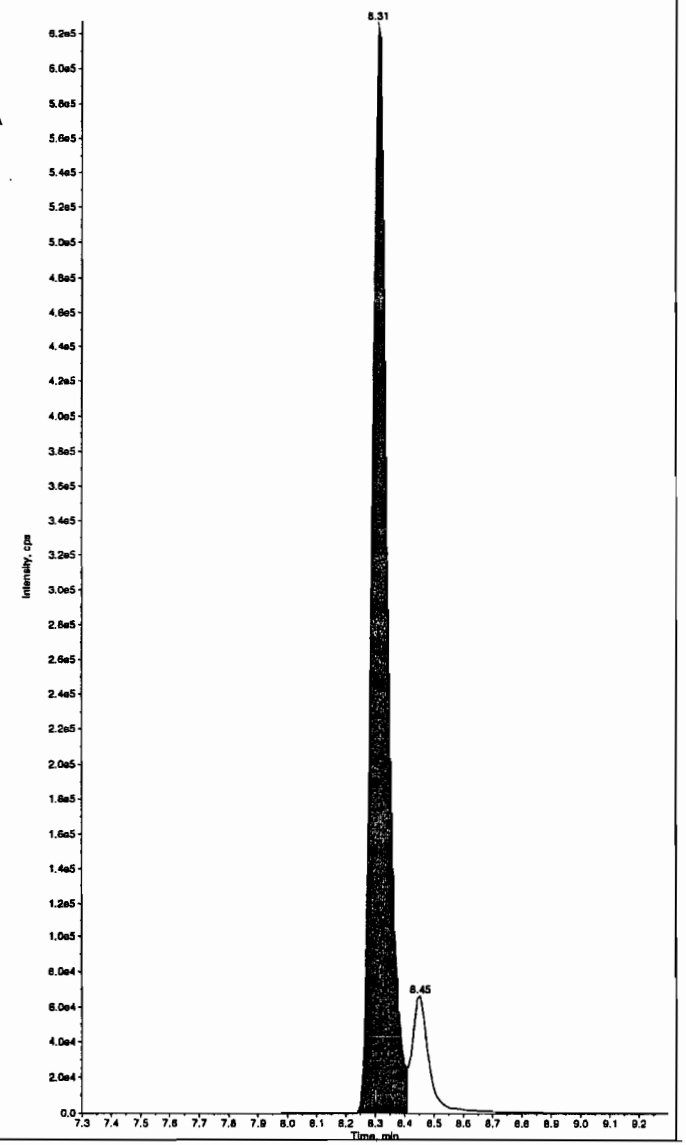


Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 534. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:30:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.31 min
Area: 2.41e+006 counts
Height: 627288.513 cps
Start Time: 8.22 min
End Time: 8.41 min



Hmm 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

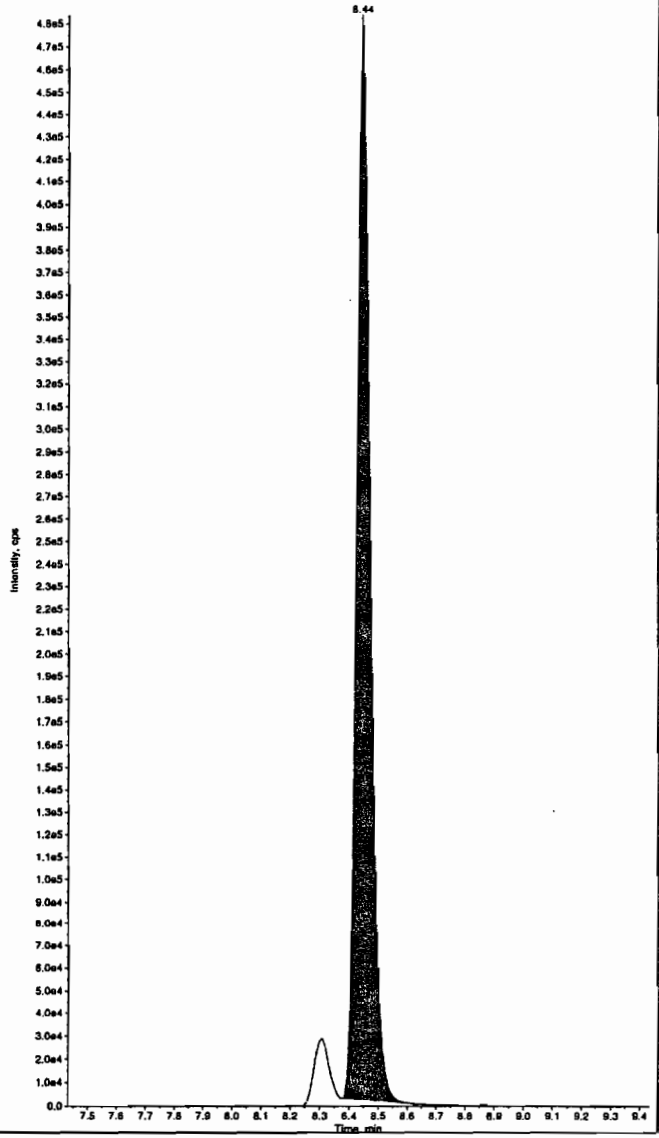
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250043.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 242. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:30:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.44 min
Area: 1.64e+006 counts
Height: 481028.595 cps
Start Time: 8.37 min
End Time: 8.61 min

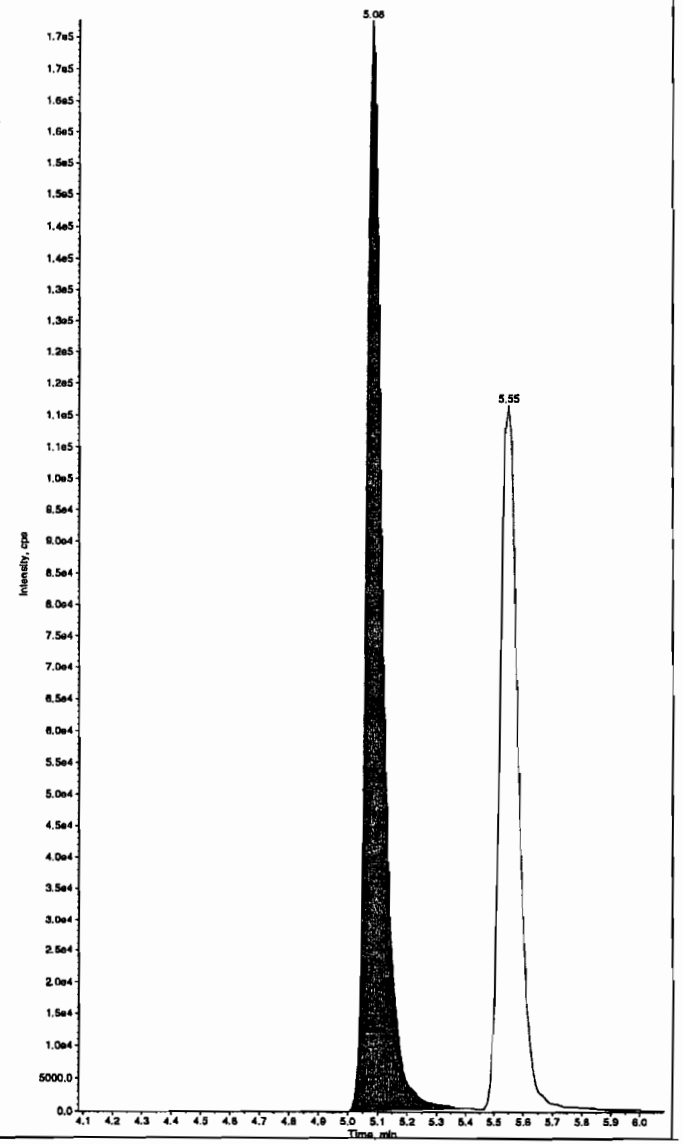


Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 530. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:30:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 6.90e+005 counts
Height: 172543.823 cps
Start Time: 4.99 min
End Time: 5.38 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

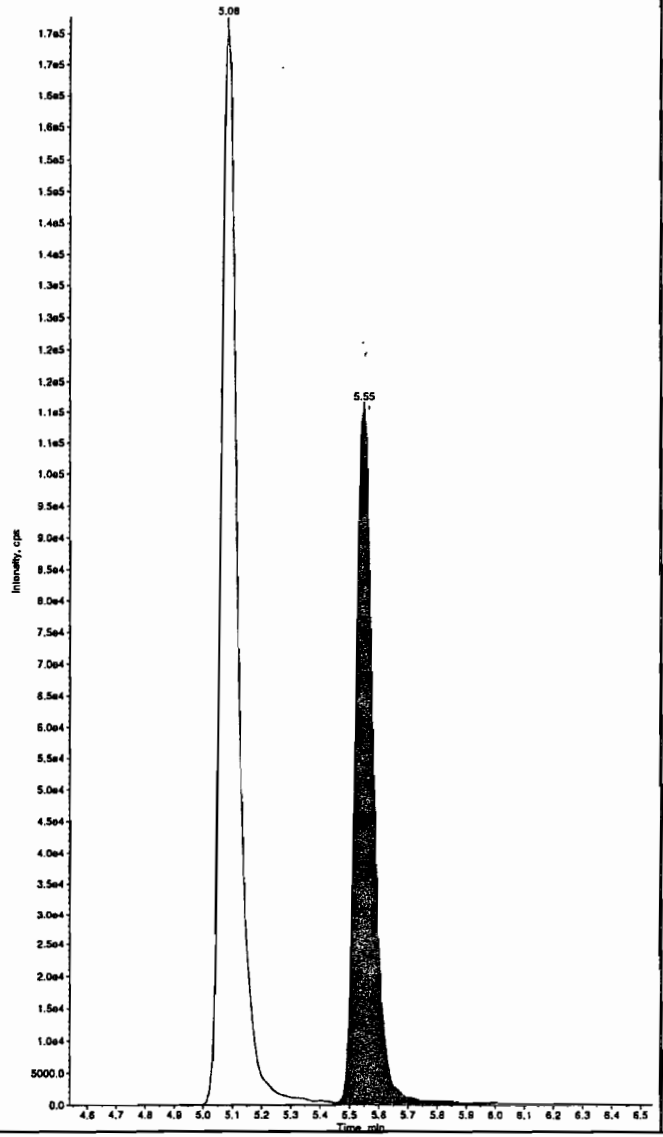
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250043.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 544. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:30:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.55 min
Area: 4.95e+005 counts
Height: 111495.026 cps
Start Time: 5.45 min
End Time: 5.94 min

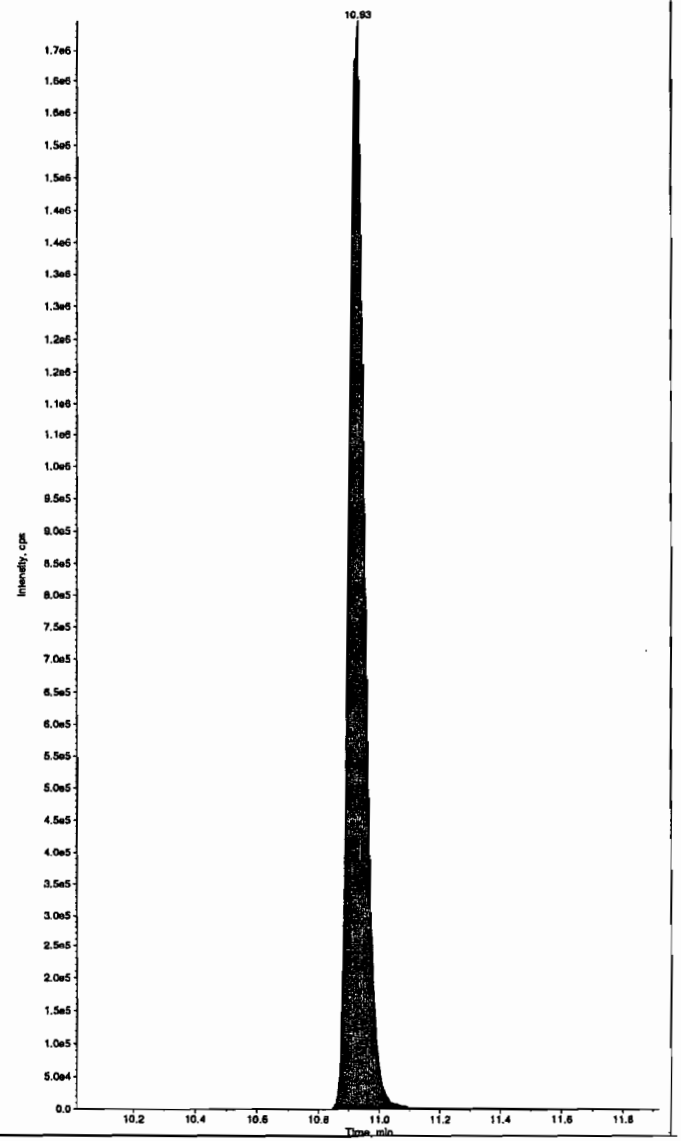


Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 512. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 7:30:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.38e+006 counts
Height: 1694950.562 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02250045.wiff

Analysis Date: 25-FEB-10 20:02

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	114	114	
2,6-Diamino-4-nitrotoluene	100	110	110	
3,4-Dinitrotoluene	50	53.5	107	
3,5-Dinitroaniline	100	108	108	
TATB	100	99.2	99	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

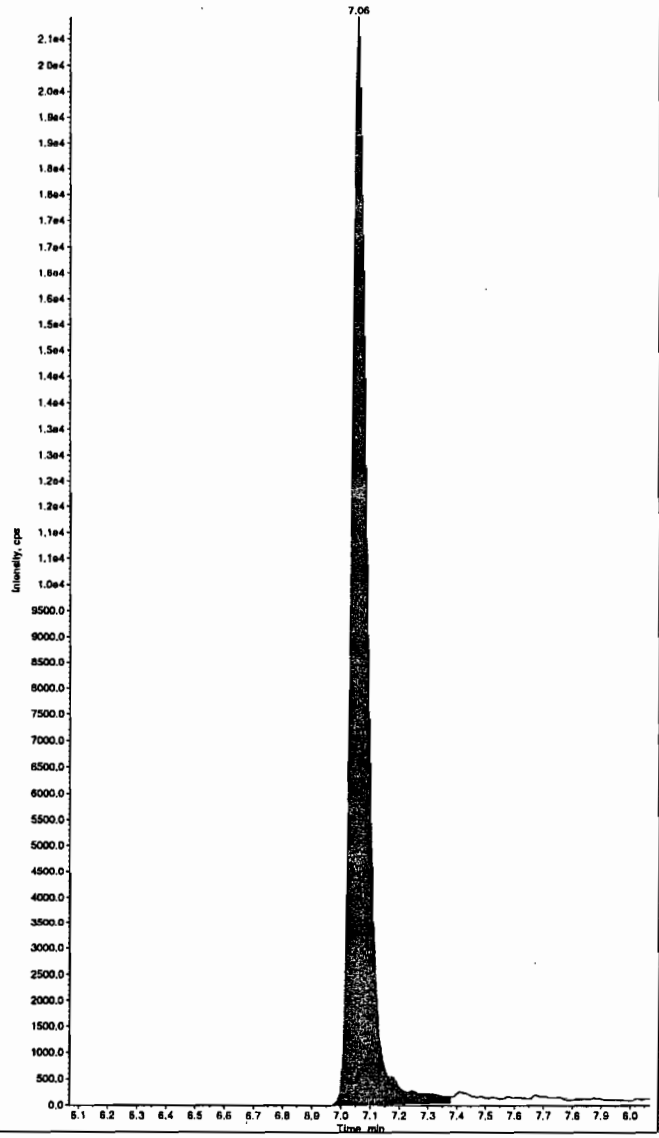
Lan 2/26/10

Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250045.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.2 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:02:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.06 min
Area: 8.28e+004 counts
Height: 20921.024 cps
Start Time: 6.96 min
End Time: 7.38 min

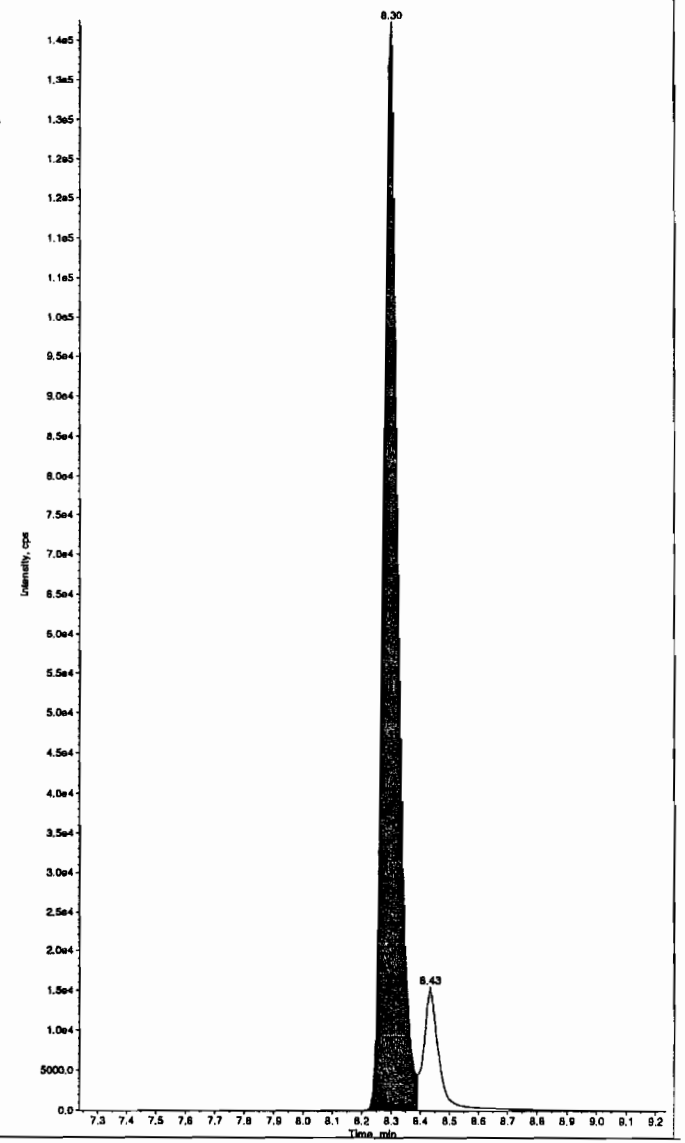


Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:02:03 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 4.99e+005 counts
Height: 137577.576 cps
Start Time: 8.17 min
End Time: 8.39 min



HMM 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

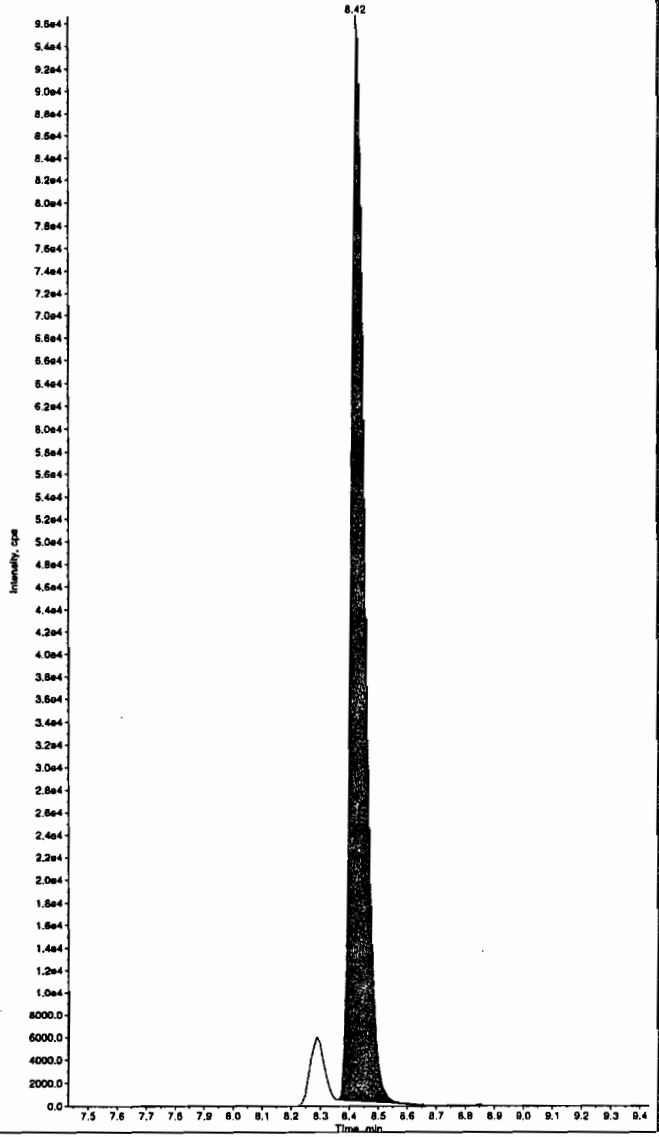
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250045.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 53.5 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:02:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.42 min
Area: 3.28e+005 counts
Height: 96214.478 cps
Start Time: 8.36 min
End Time: 8.62 min

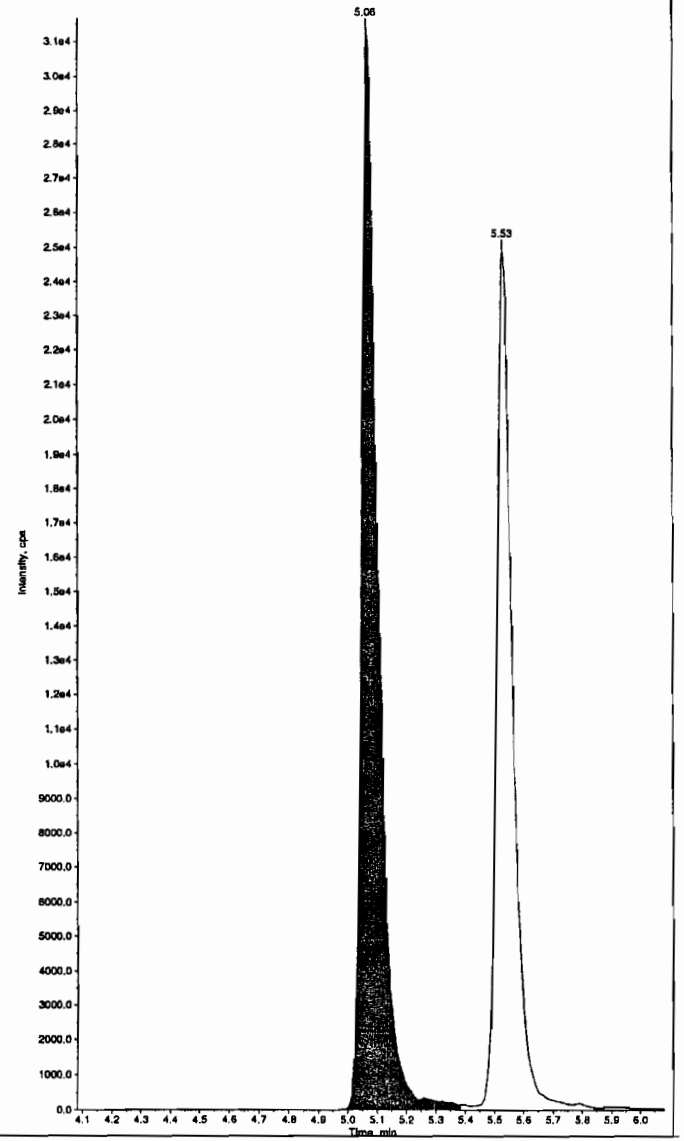


Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250045.wiff"
Peak Name: "26-Diamino-4-nitrotoluena" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:02:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.06 min
Area: 1.29e+005 counts
Height: 31681.858 cps
Start Time: 4.93 min
End Time: 5.38 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

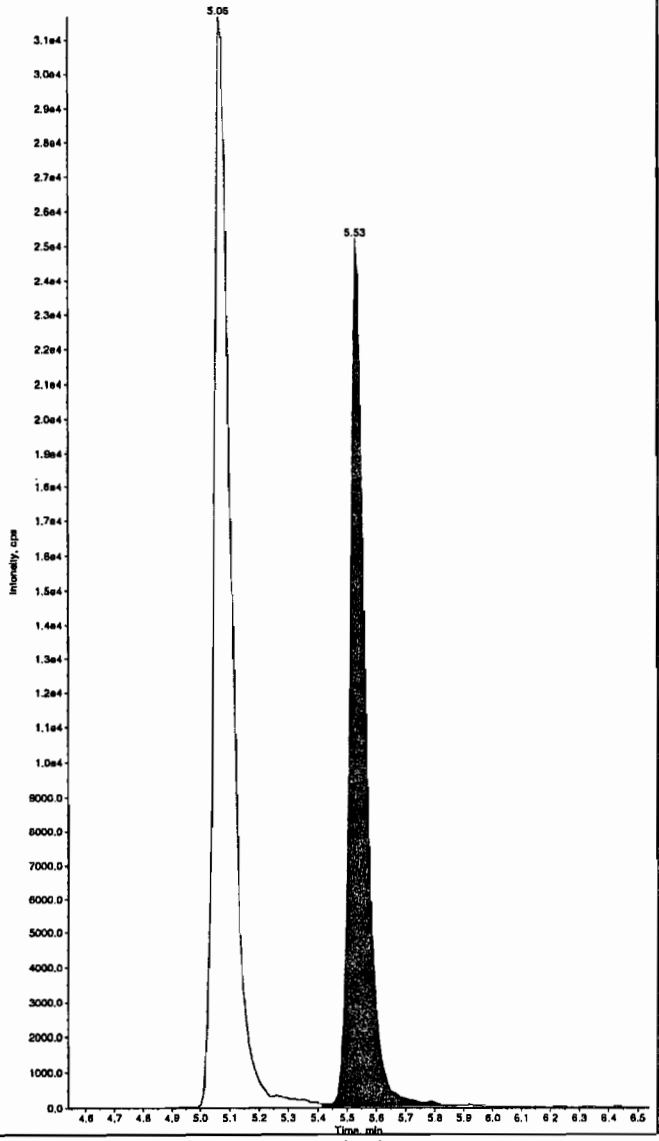
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250045.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:02:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.53 min
Area: 9.65e+004 counts
Height: 25189.941 cps
Start Time: 5.42 min
End Time: 5.86 min

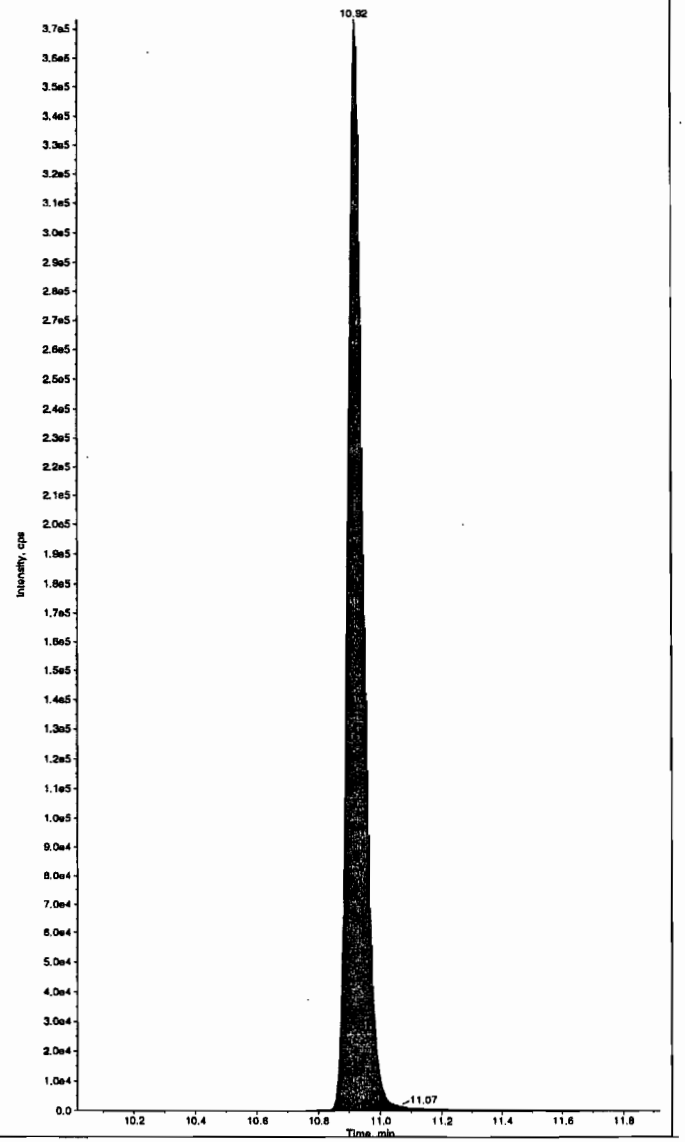


Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250045.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:02:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.35e+006 counts
Height: 372822.693 cps
Start Time: 10.8 min
End Time: 11.3 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS02250056.wiff

Analysis Date: 25-FEB-10 22:54

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	541	108	
2,6-Diamino-4-nitrotoluene	500	584	117	
3,4-Dinitrotoluene	250	271	108	
3,5-Dinitroaniline	500	622	124	
TATB	500	523	105	
tris(o-cresyl) phosphate	500	513	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

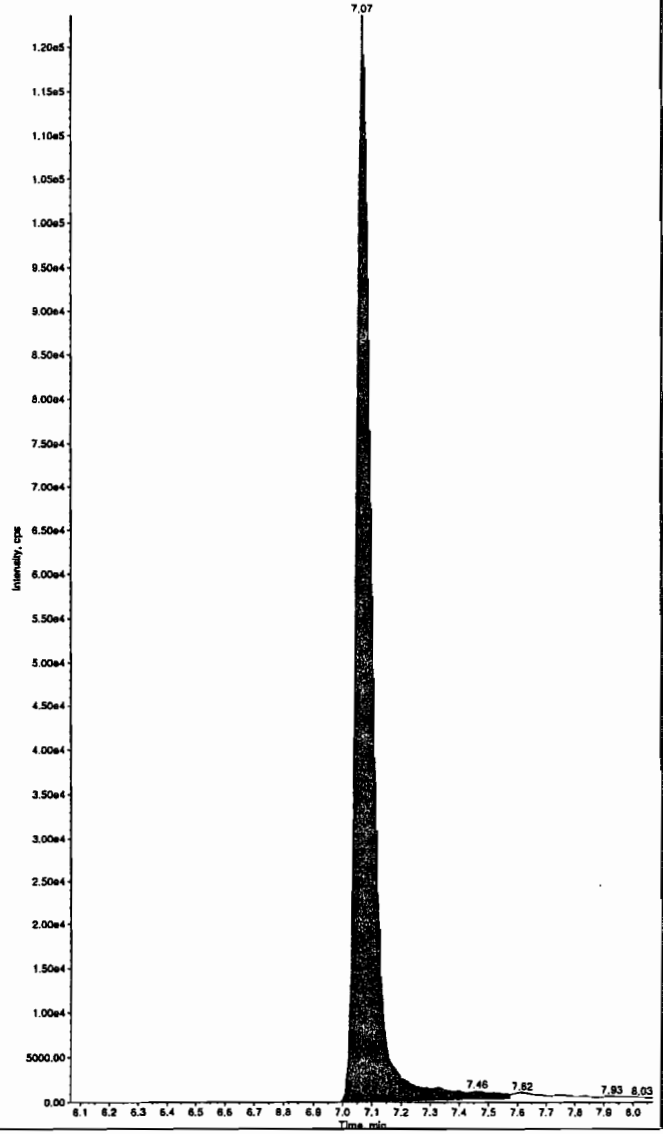
Sam 2/26/10

Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250056.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 523. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:54:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.07 min
Area: 4.91e+005 counts
Height: 123628.815 cps
Start Time: 6.97 min
End Time: 7.58 min

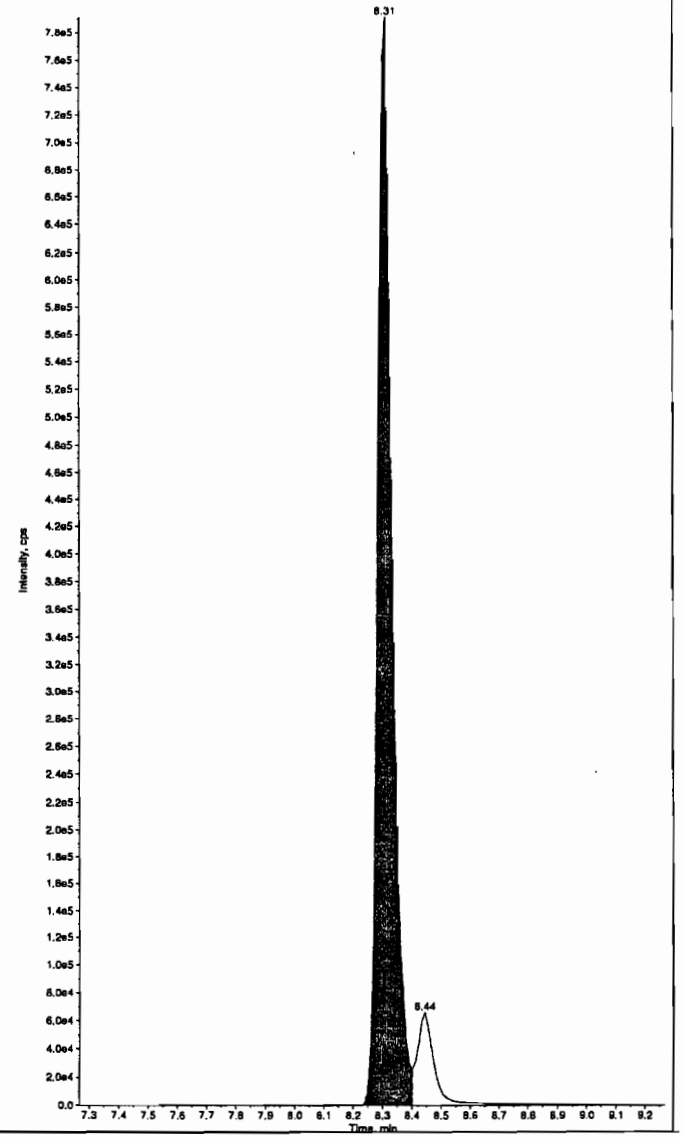


Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250056.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 622. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:54:46 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.31 min
Area: 2.79e+006 counts
Height: 791429.260 cps
Start Time: 8.22 min
End Time: 8.40 min



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

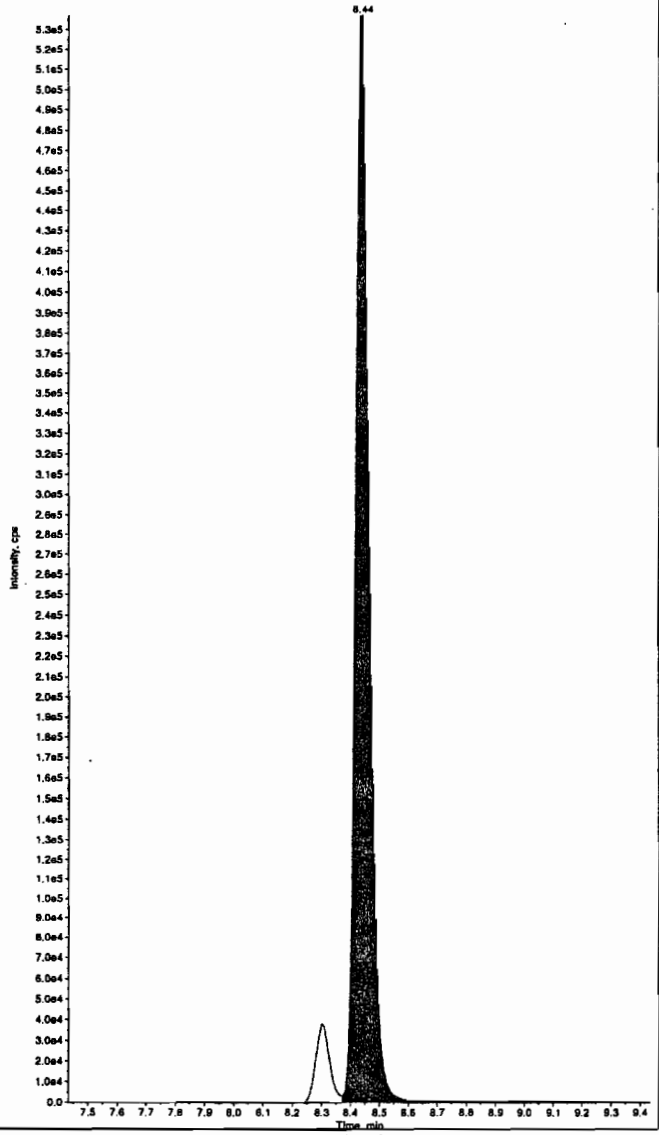
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250056.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 271. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:54:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.44 min
Area: 1.83e+006 counts
Height: 536923.279 cps
Start Time: 8.37 min
End Time: 8.77 min

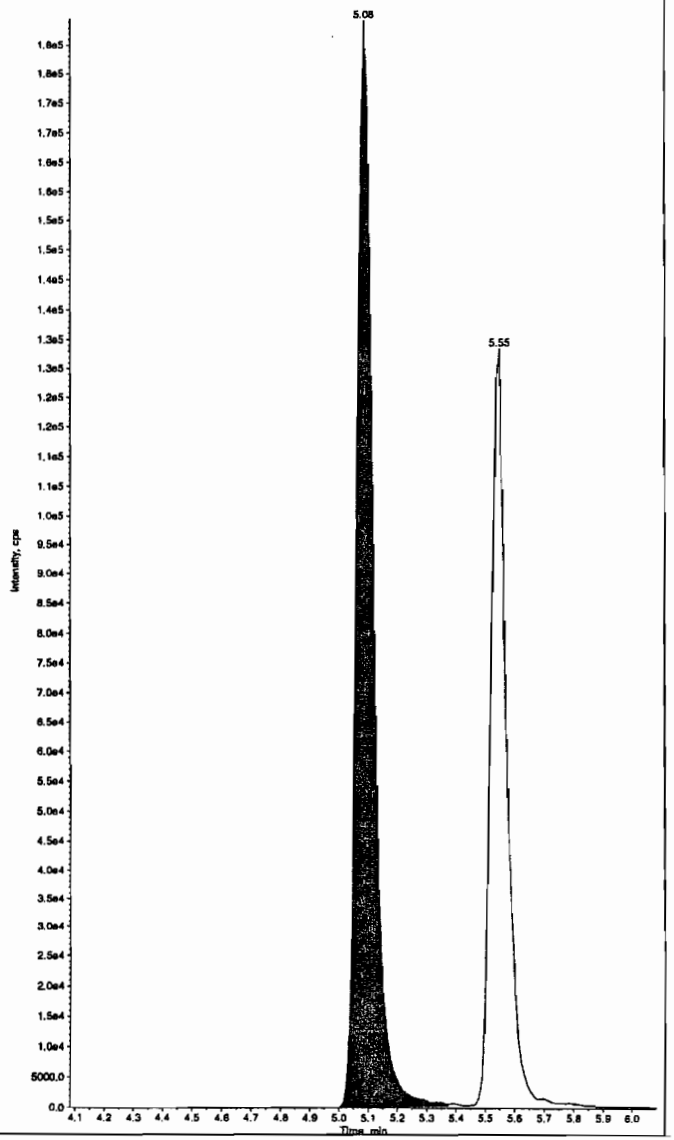


Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250056.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 584. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 10:54:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 7.61e+005 counts
Height: 184492.554 cps
Start Time: 4.99 min
End Time: 5.37 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

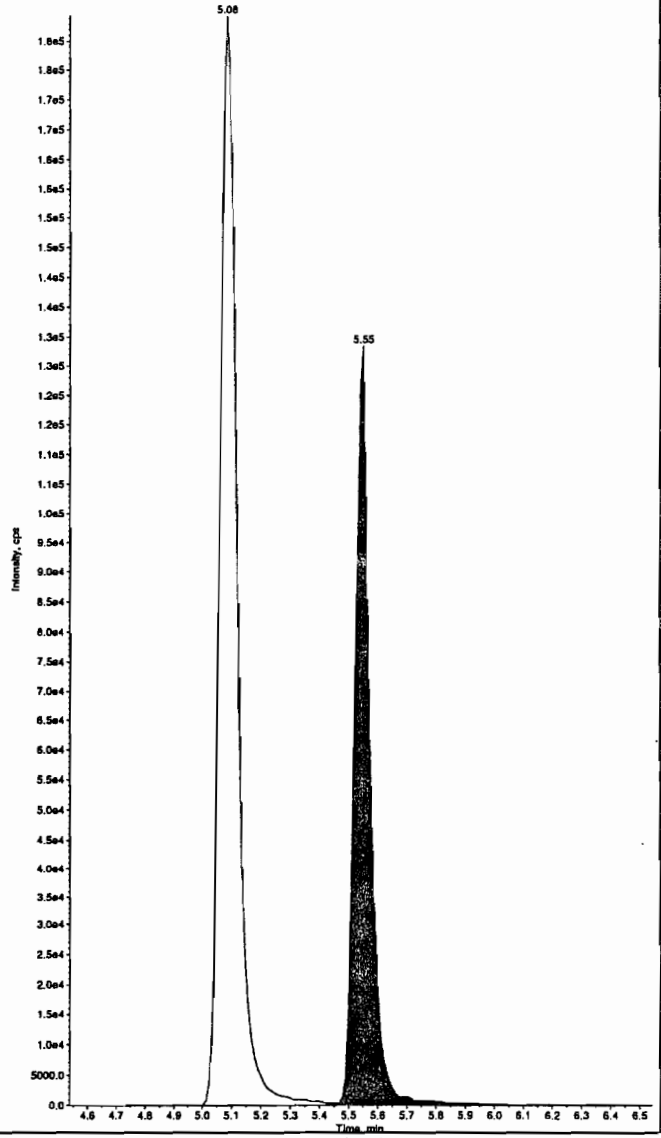
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250056.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.     ng/mL
Calculated Conc:    541.     ng/mL
Acq. Date:        2/25/2010
Acq. Time:        10:54:46 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.54   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.55   min
Area:         4.92e+005   counts
Height:        128524.124  cps
Start Time:         5.43   min
End Time:           5.96   min
```

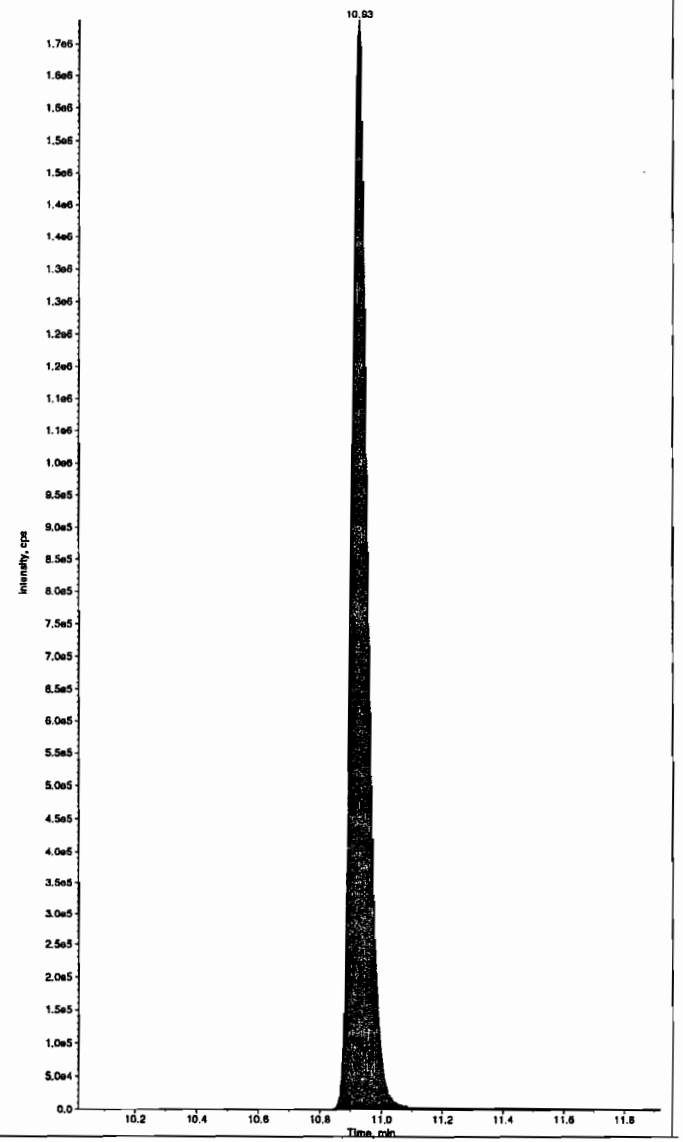


Sample Name: "WXX100225-26CCV" Sample ID: "|1|LER" File: "EXS02250056.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.     ng/mL
Calculated Conc:    513.     ng/mL
Acq. Date:        2/25/2010
Acq. Time:        10:54:46 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        10.9   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.9   min
Area:         6.39e+006   counts
Height:       1689330.566  cps
Start Time:         10.8   min
End Time:           11.3   min
```



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02250058.wiff

Analysis Date: 25-FEB-10 23:26

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	139	139	
2,6-Diamino-4-nitrotoluene	100	123	123	
3,4-Dinitrotoluene	50	56.8	114	
3,5-Dinitroaniline	100	117	117	
TATB	100	113	113	
tris(o-cresyl) phosphate	100	107	107	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

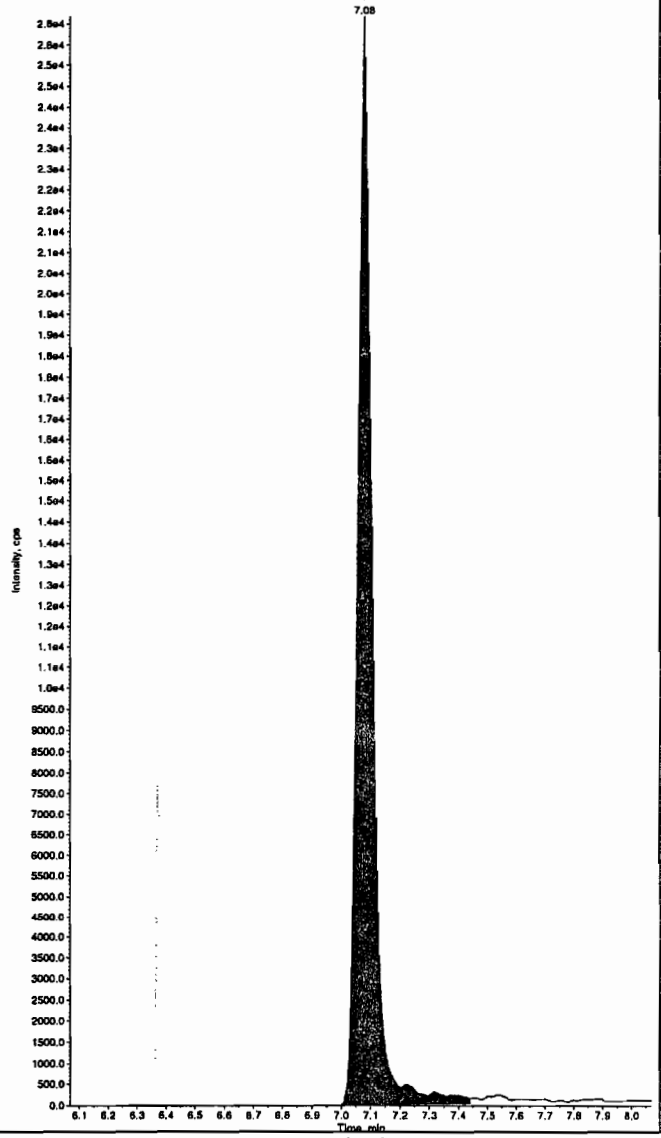
LCL 2/26/10

Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250058.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:26:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.08 min
Area: 9.61e+004 counts
Height: 26180.634 cps
Start Time: 6.99 min
End Time: 7.44 min

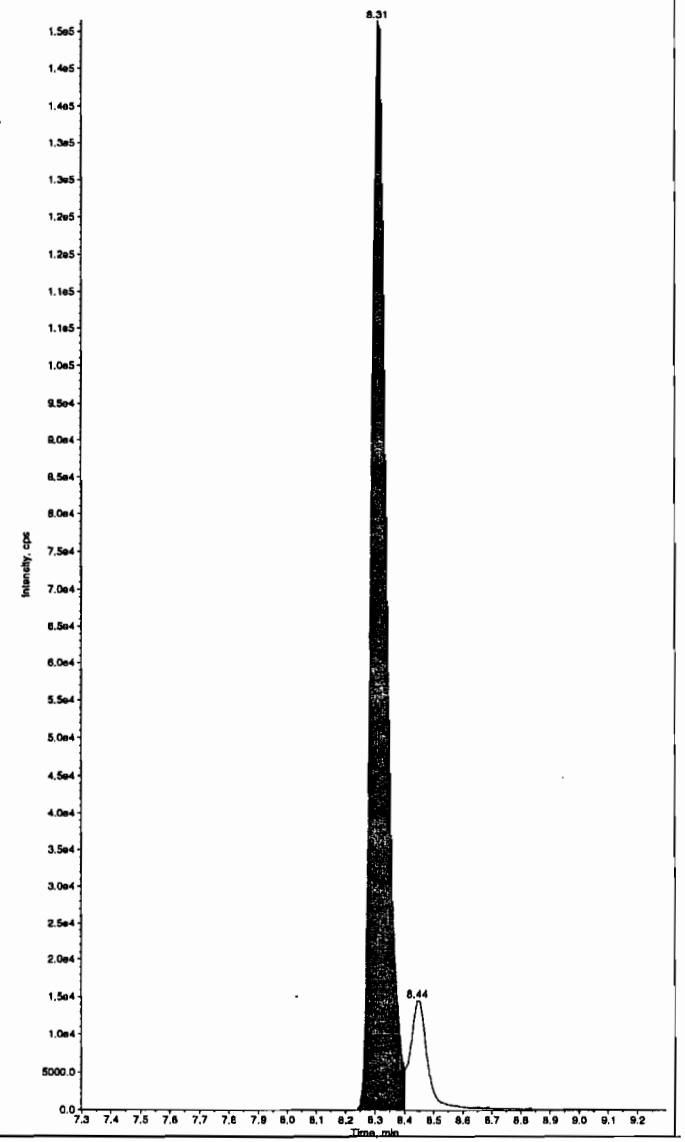


Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250058.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 117. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:26:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.31 min
Area: 5.43e+005 counts
Height: 146477.158 cps
Start Time: 8.22 min
End Time: 8.40 min



HNM 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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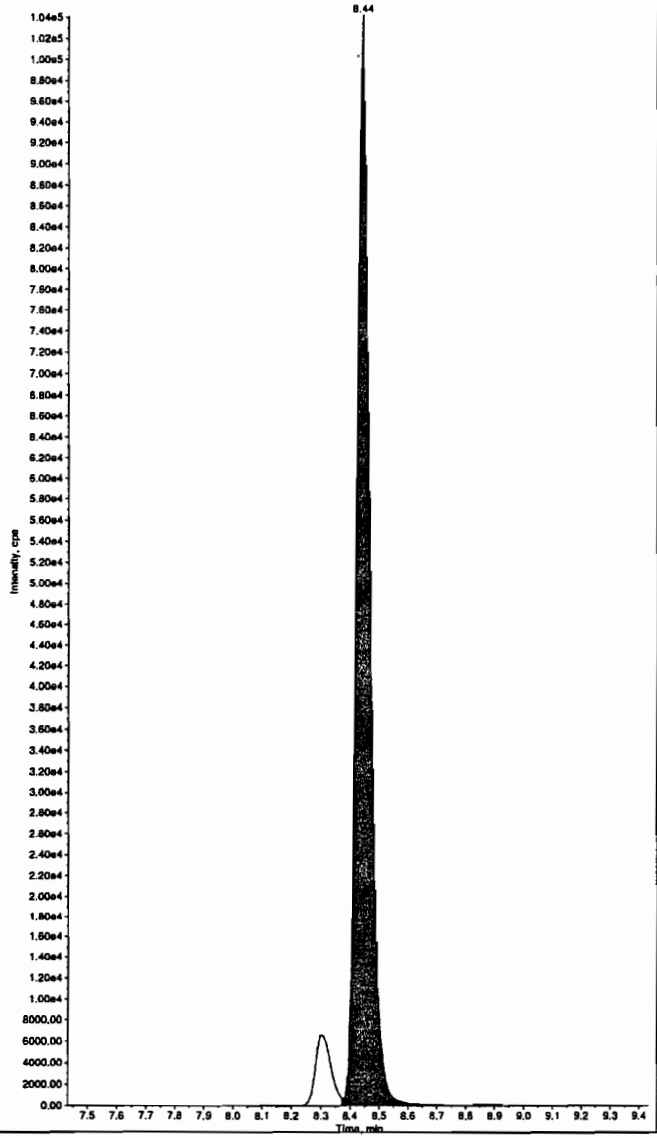
Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250058.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 56.8 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:26:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.44 min
Area: 3.52e+005 counts
Height: 104127.159 cps
Start Time: 8.37 min
End Time: 8.76 min

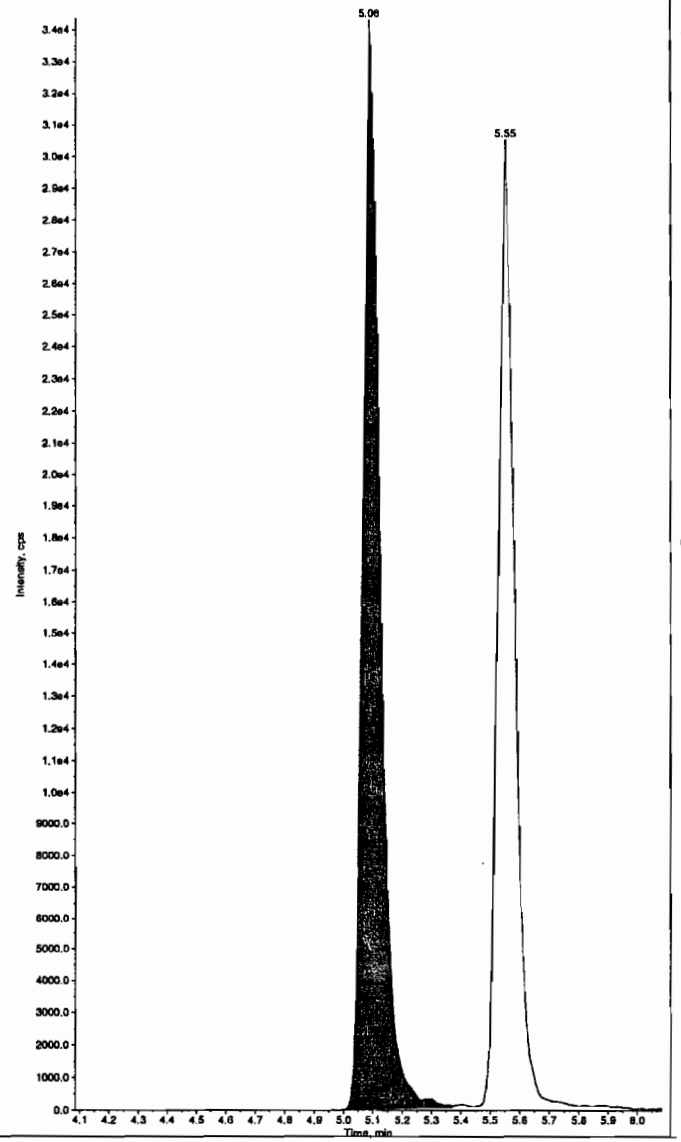


Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02250058.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 123. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:26:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 1.47e+005 counts
Height: 34315.636 cps
Start Time: 4.99 min
End Time: 5.37 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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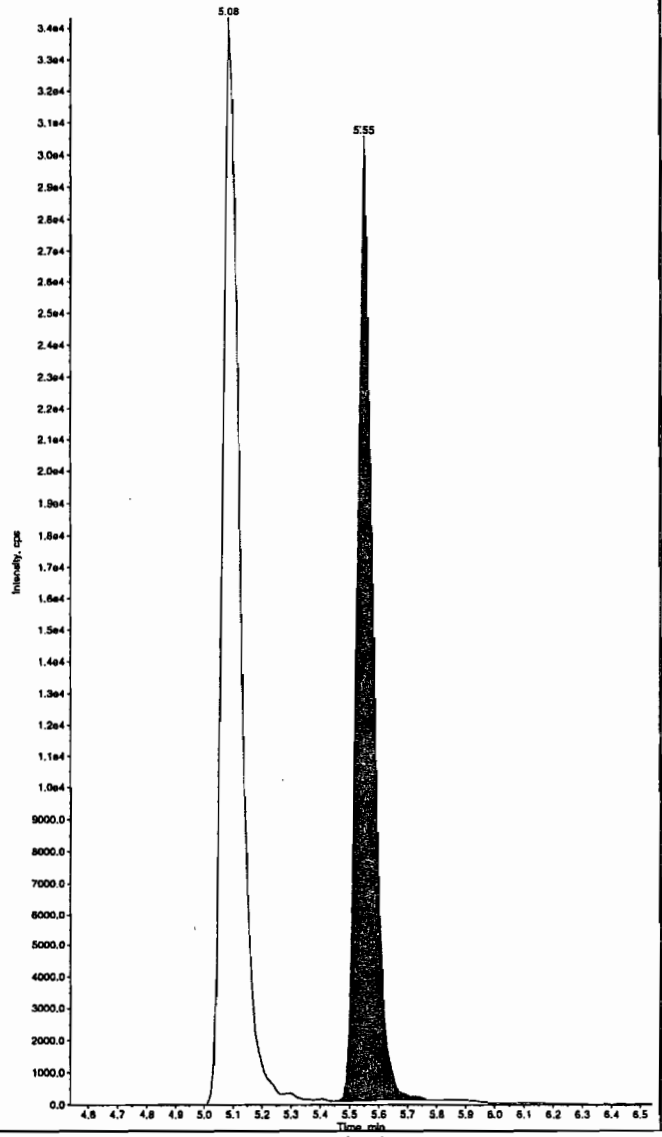
Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250058.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 139. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:26:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.55 min
Area: 1.19e+005 counts
Height: 30456.411 cps
Start Time: 5.45 min
End Time: 5.80 min

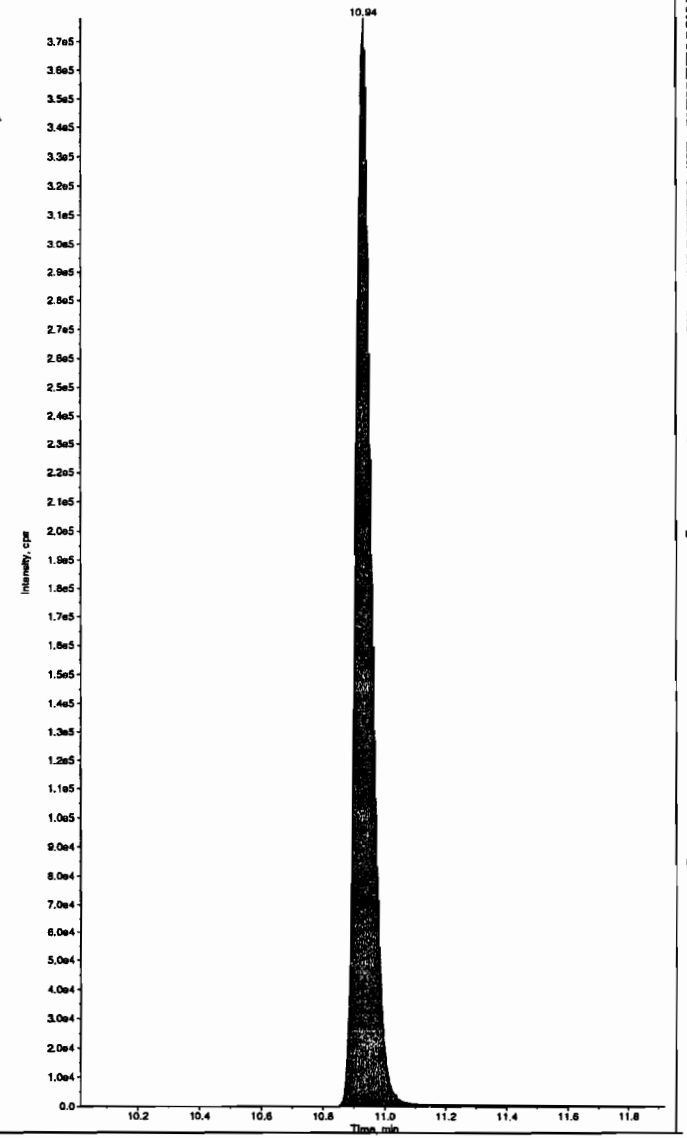


Sample Name: "WXX100225-27CRI" Sample ID: "[1]LER" File: "EXS02250058.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 11:26:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.40e+006 counts
Height: 377906.799 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260013.wiff

Analysis Date: 26–FEB–10 18:02

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	110	110	
2,6–Diamino–4–nitrotoluene	100	104	104	
3,4–Dinitrotoluene	50	46.1	92	
3,5–Dinitroaniline	100	94.6	95	
TATB	100	105	105	
tris(o–cresyl) phosphate	100	103	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

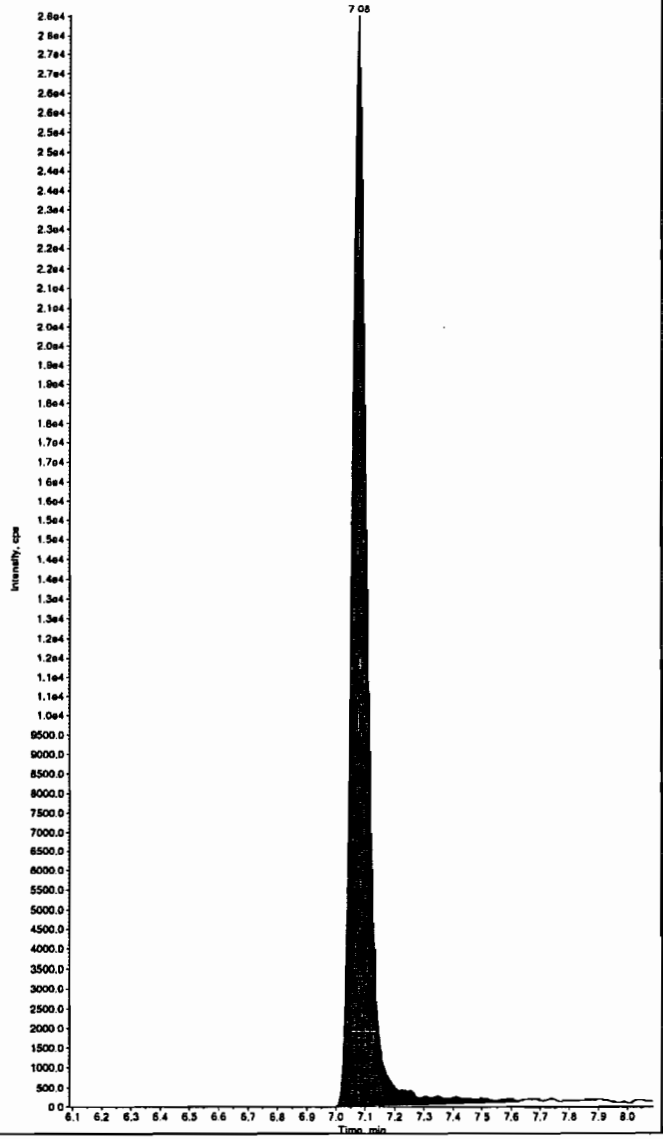
Lcm 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:             QC
Concentration:         100.     ng/mL
Calculated Conc:       105.     ng/mL
Acq. Date:          2/26/2010
Acq. Time:          6:02:29 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2500.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3         points
RT Window:           30.0    sec
Expected RT:          7.09   min
Use Relative RT:      No

Int. Type:          Valley
Retention Time:       7.08   min
Area:            1.08e+005   counts
Height:            28029.306 cps
Start Time:           6.99   min
End Time:             7.63   min
```

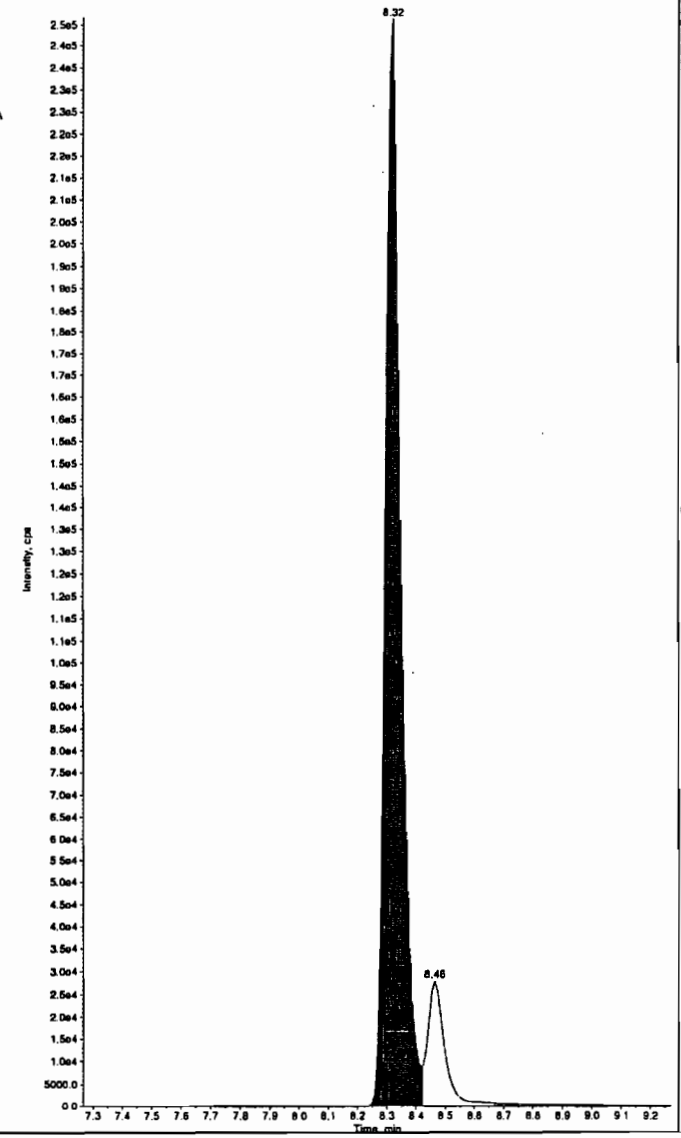


Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:             QC
Concentration:         100.     ng/mL
Calculated Conc:       94.6     ng/mL
Acq. Date:          2/26/2010
Acq. Time:          6:02:29 PM

Modified:              Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3         points
RT Window:           15.0    sec
Expected RT:          8.27   min
Use Relative RT:      No

Int. Type:          Valley
Retention Time:       8.32   min
Area:            9.52e+005   counts
Height:            246685.013 cps
Start Time:           8.22   min
End Time:             8.42   min
```



Hnm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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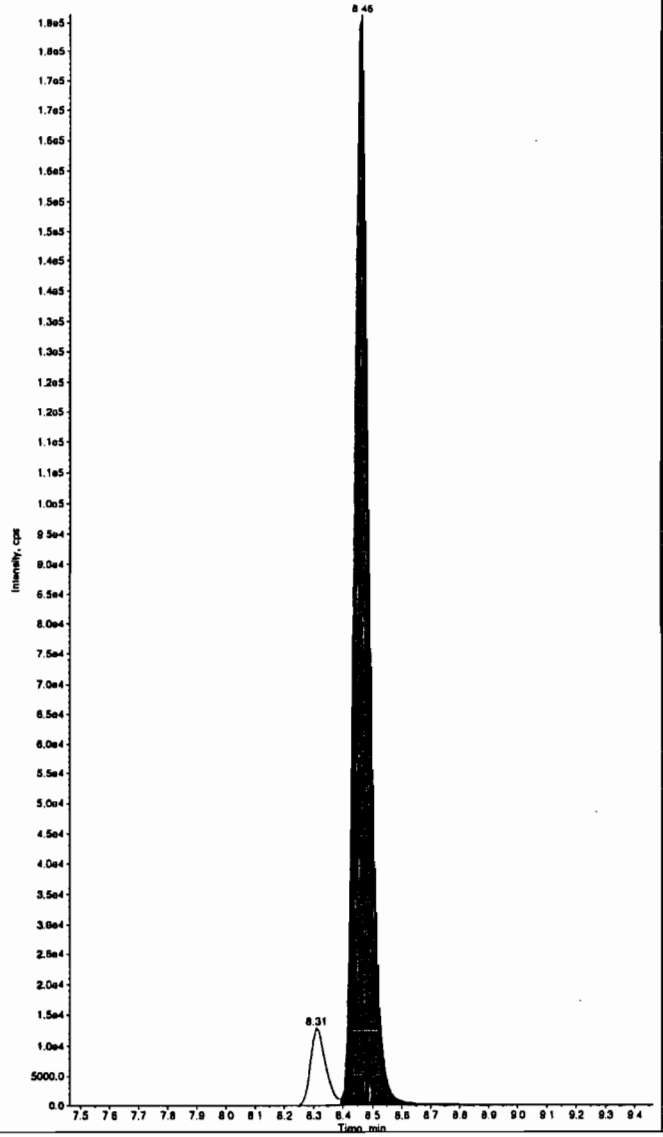
Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 46.1 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 6.66e+005 counts
Height: 181473.358 cps
Start Time: 8.39 min
End Time: 8.79 min

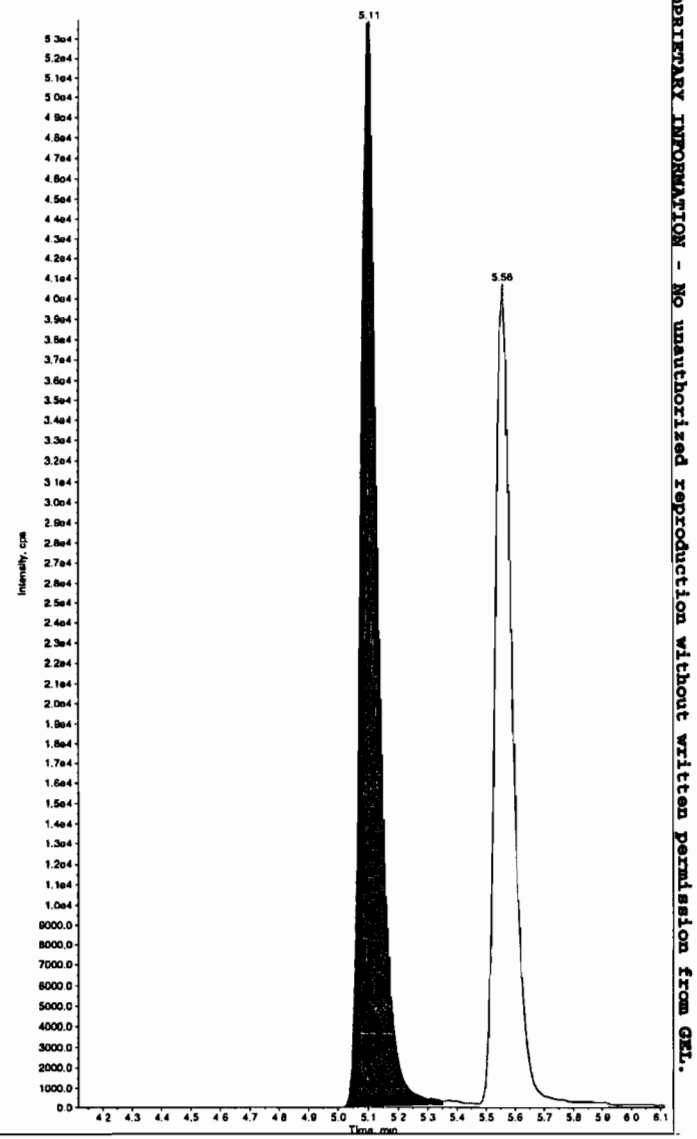


Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.11 min
Area: 2.28e+005 counts
Height: 53935.883 cps
Start Time: 5.01 min
End Time: 5.35 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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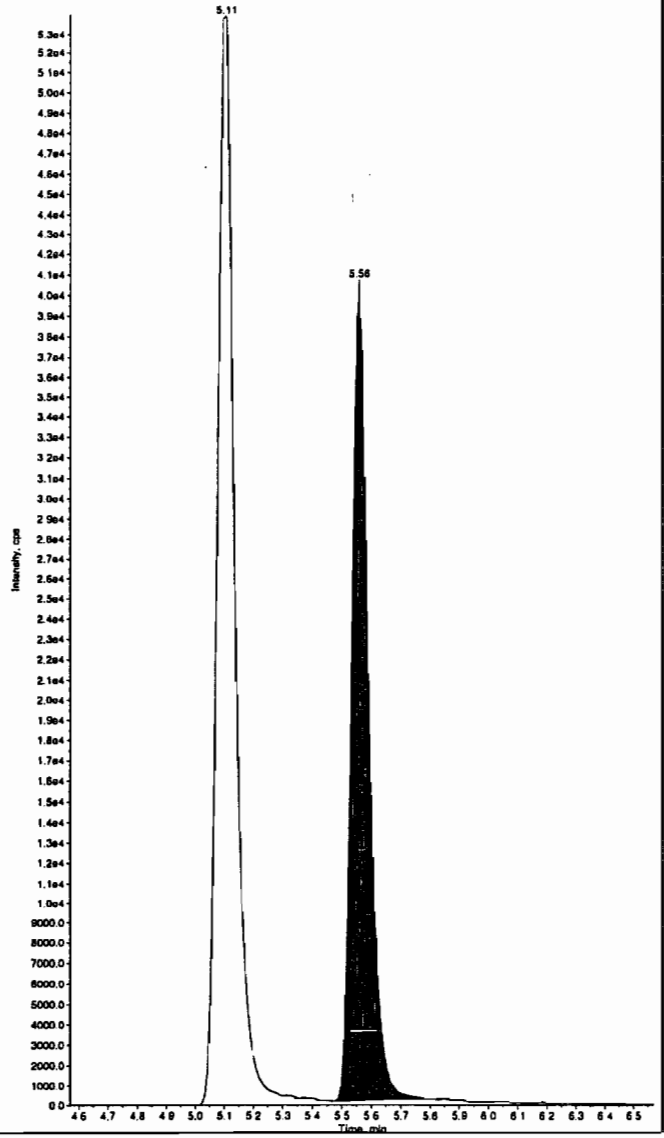
Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.56 min
Area: 1.68e+005 counts
Height: 40613.808 cps
Start Time: 5.48 min
End Time: 5.80 min

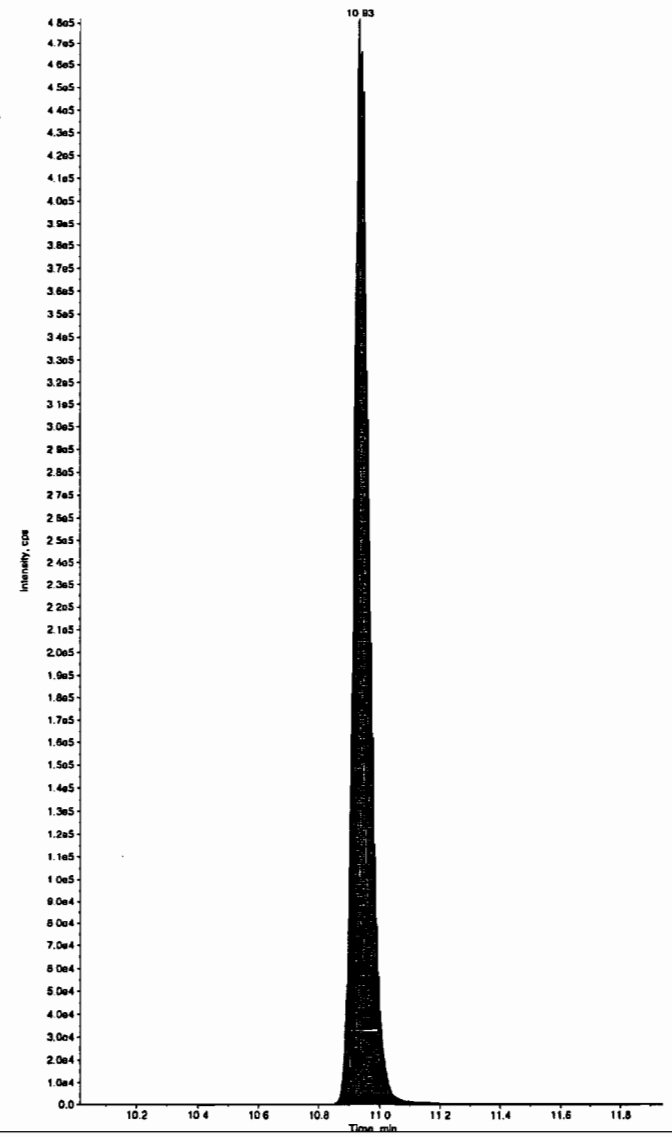


Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.76e+006 counts
Height: 481600.250 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1747

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260024.wiff

Analysis Date: 26–FEB–10 20:55

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	536	107	
2,6–Diamino–4–nitrotoluene	500	541	108	
3,4–Dinitrotoluene	250	219	88	
3,5–Dinitroaniline	500	464	93	
TATB	500	493	99	
tris(o–cresyl) phosphate	500	498	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

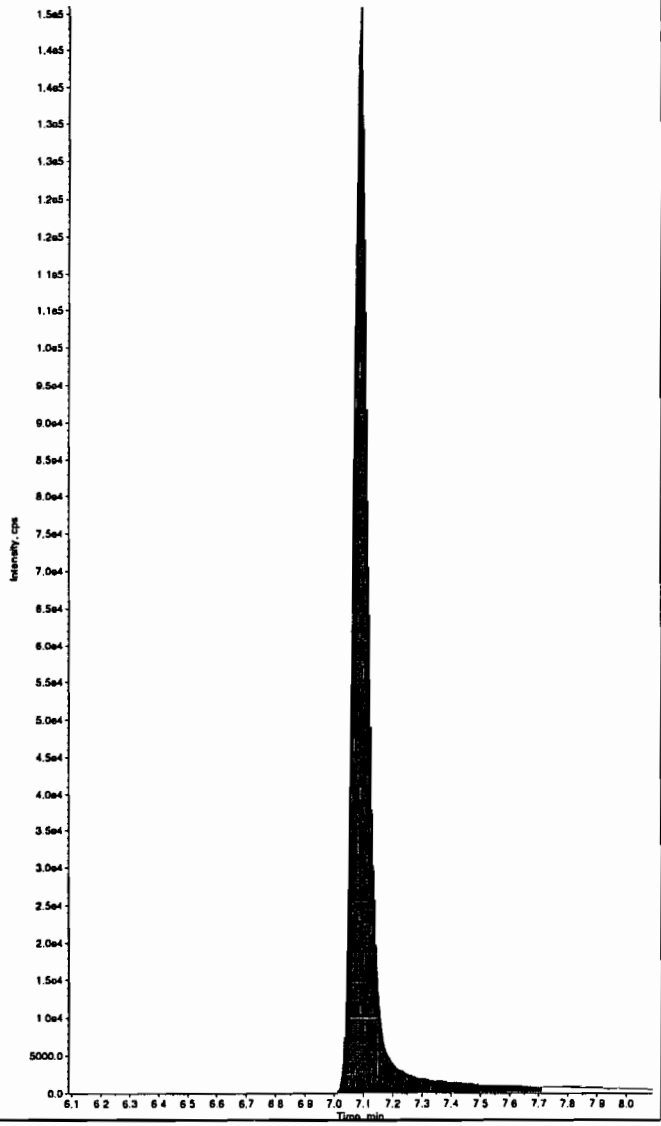
Before Lan 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.09 min
Area: 5.82e+005 counts
Height: 146054.626 cps
Start Time: 6.99 min
End Time: 7.71 min

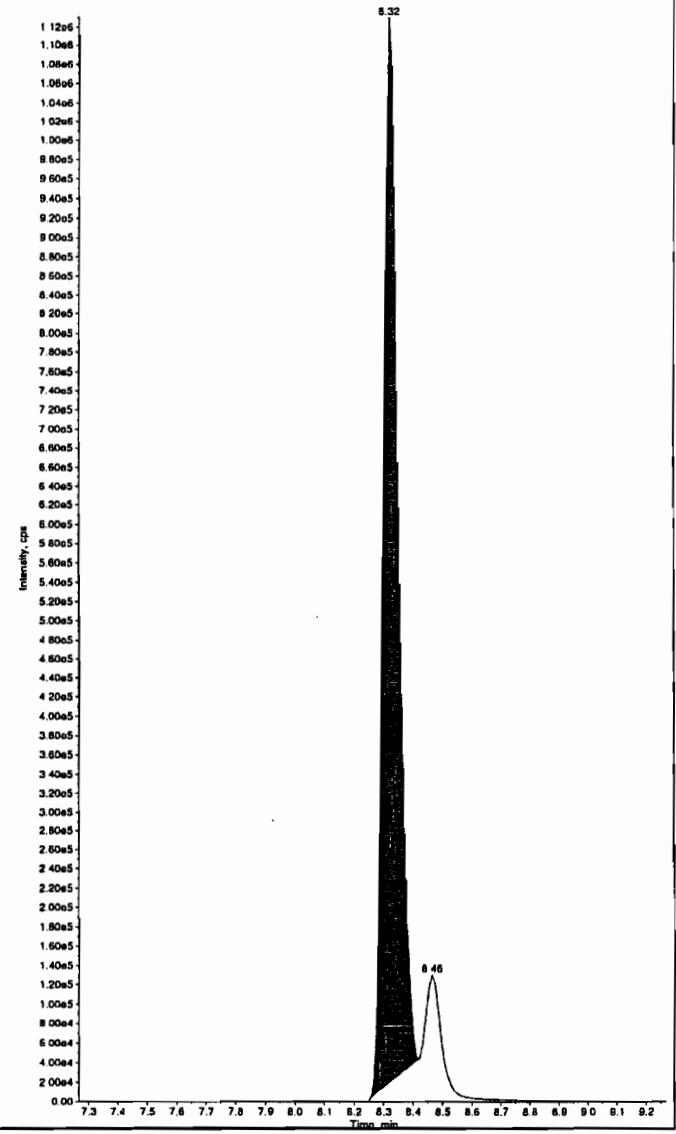


Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 439. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.32 min
Area: 4.06e+006 counts
Height: 1111148.438 cps
Start Time: 8.26 min
End Time: 8.42 min



Hnm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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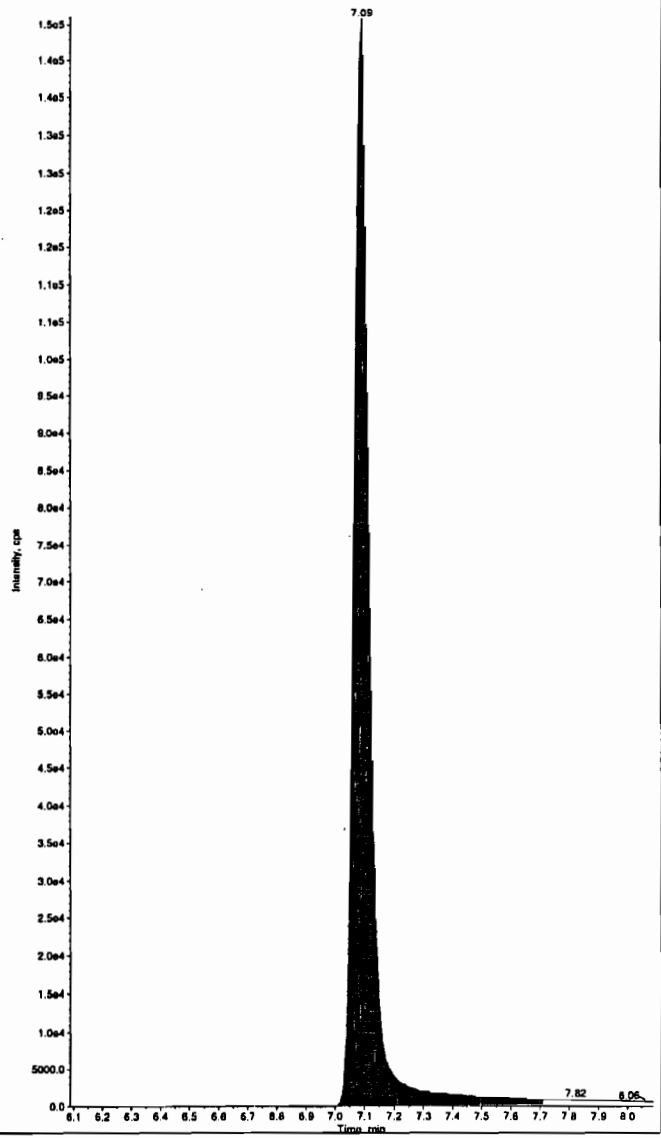
after Ker 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.09 min
Area: 5.82e+005 counts
Height: 146054.626 cps
Start Time: 6.99 min
End Time: 7.71 min

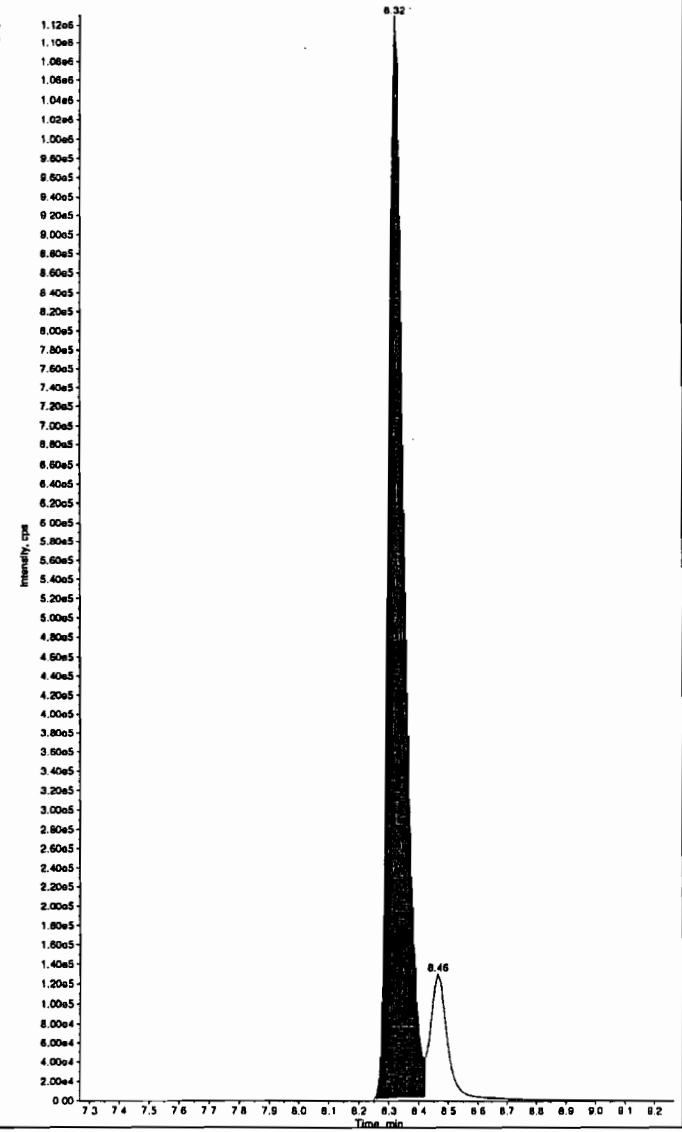


Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 464. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.32 min
Area: 4.27e+006 counts
Height: 1136132.036 cps
Start Time: 8.26 min
End Time: 8.42 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

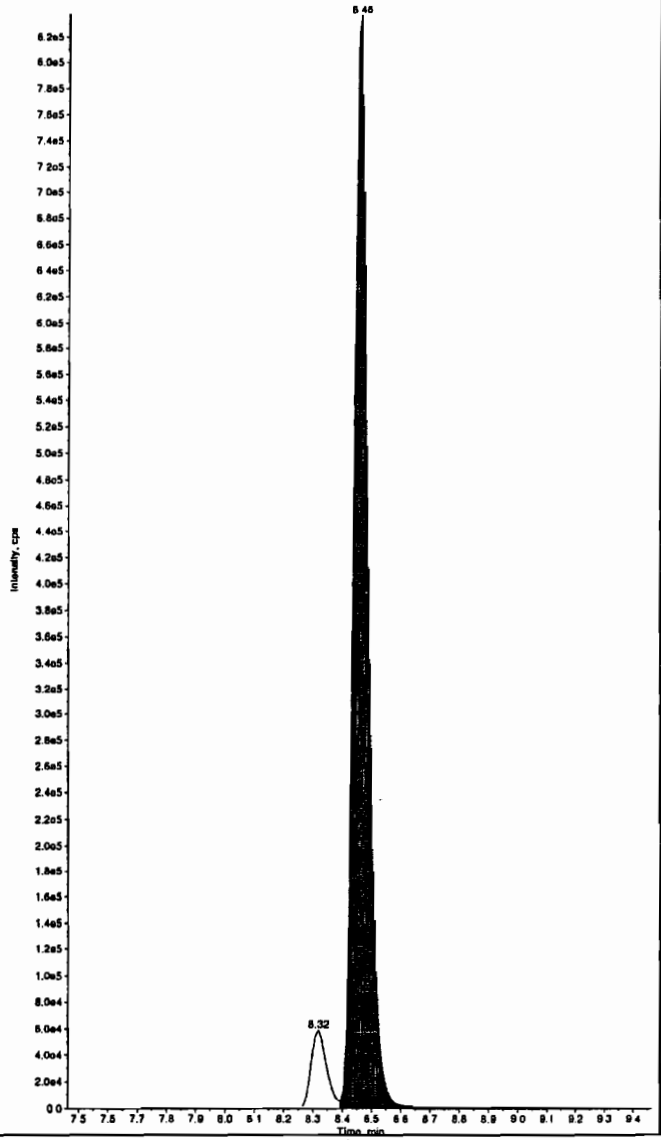
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Cslculated Conc: 219. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.04e+006 counts
Height: 837212.036 cps
Start Time: 8.39 min
End Time: 8.82 min

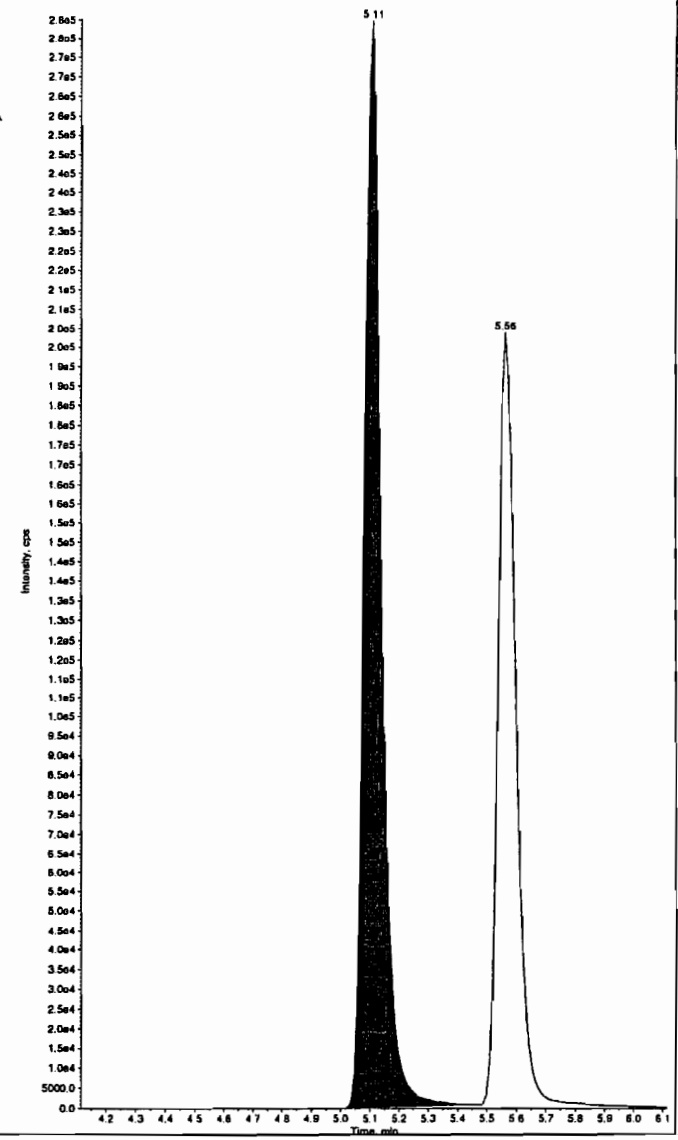


Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 541. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.11 min
Area: 1.19e+006 counts
Height: 280100.037 cps
Start Time: 5.01 min
End Time: 5.41 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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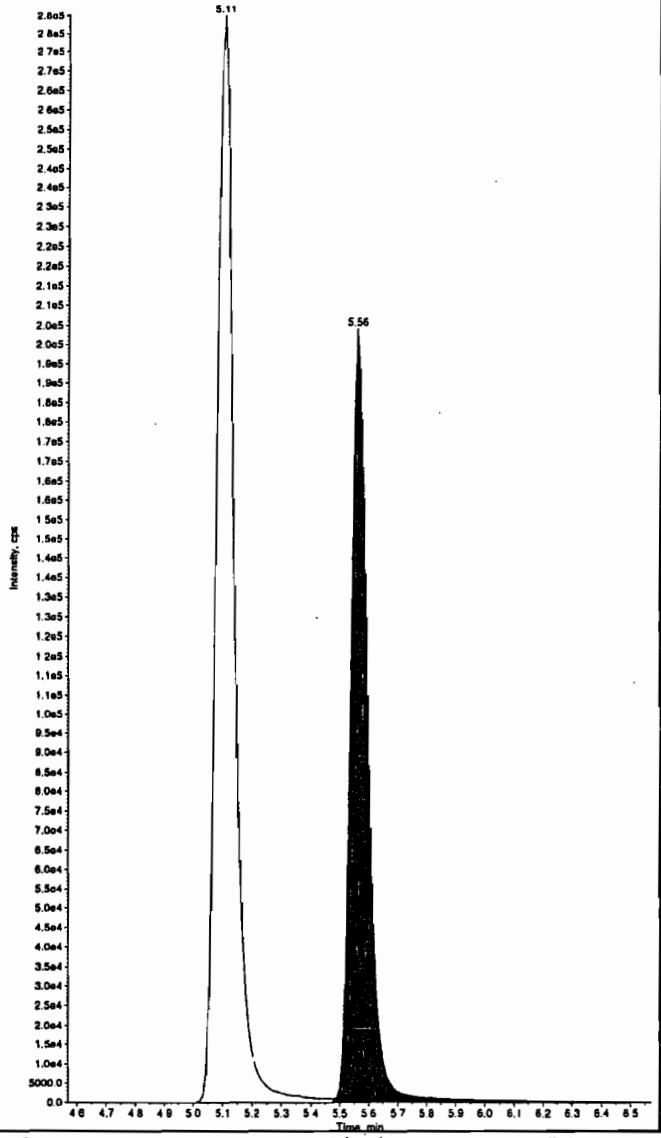
Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 536. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.56 min
Area: 8.57e+005 counts
Height: 199263.412 cps
Start Time: 5.48 min
End Time: 6.09 min

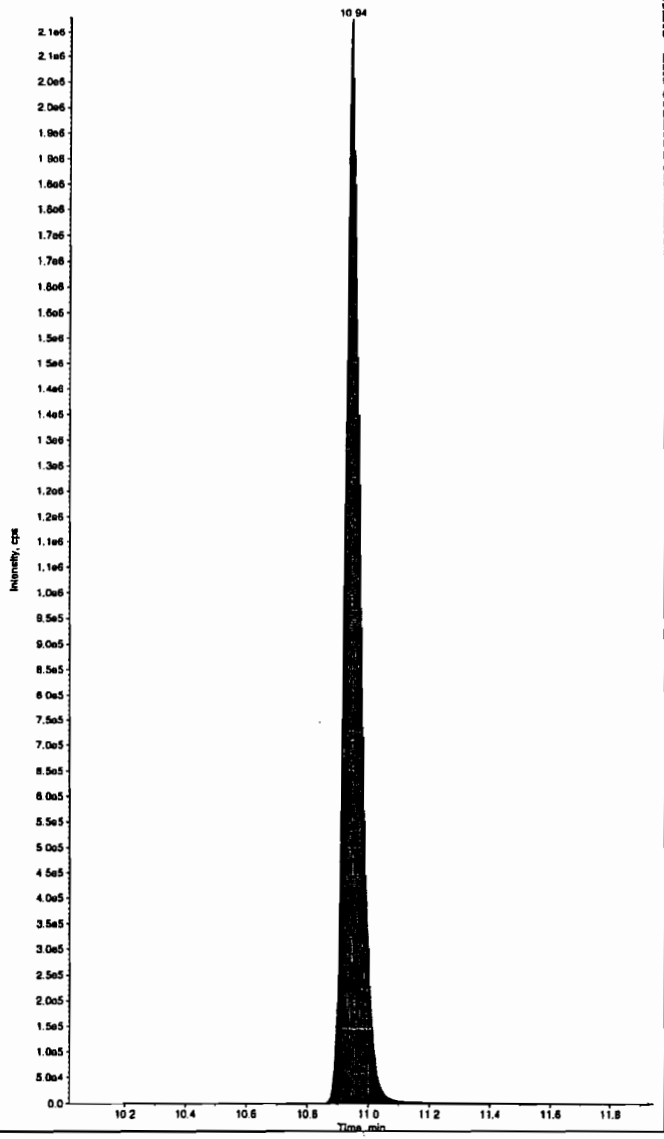


Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.70e+006 counts
Height: 2130550.781 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1747

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02260026.wiff

Analysis Date: 26-FEB-10 21:26

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	104	104	
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	43.5	87	
3,5-Dinitroaniline	100	91.3	91	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	104	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

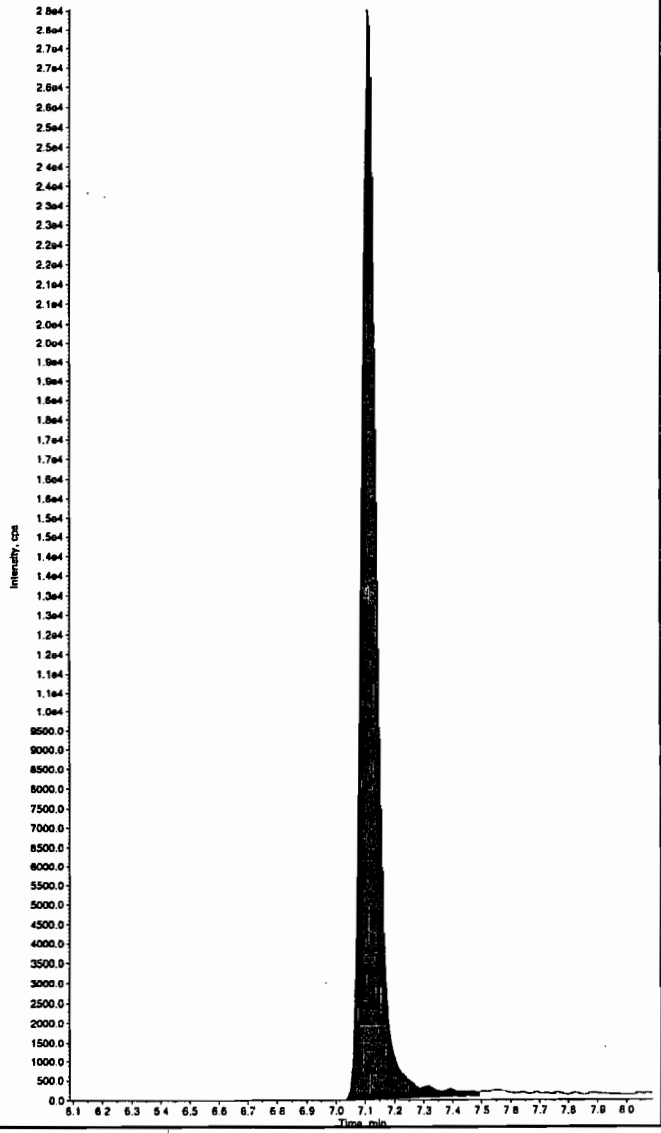
Before Run 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.11 min
Area: 1.08e+005 counts
Height: 28018.894 cps
Start Time: 7.03 min
End Time: 7.49 min

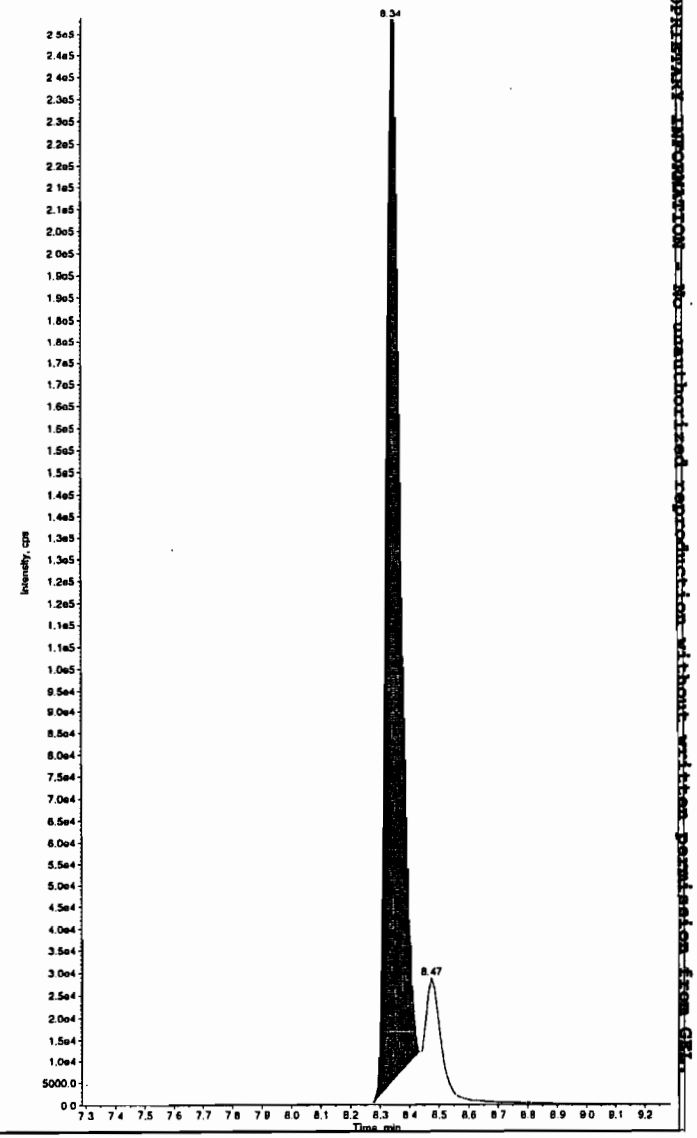


Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 85.6 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.29 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 8.66e+005 counts
Height: 243722.839 cps
Start Time: 8.28 min
End Time: 8.43 min



HM 03/01/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

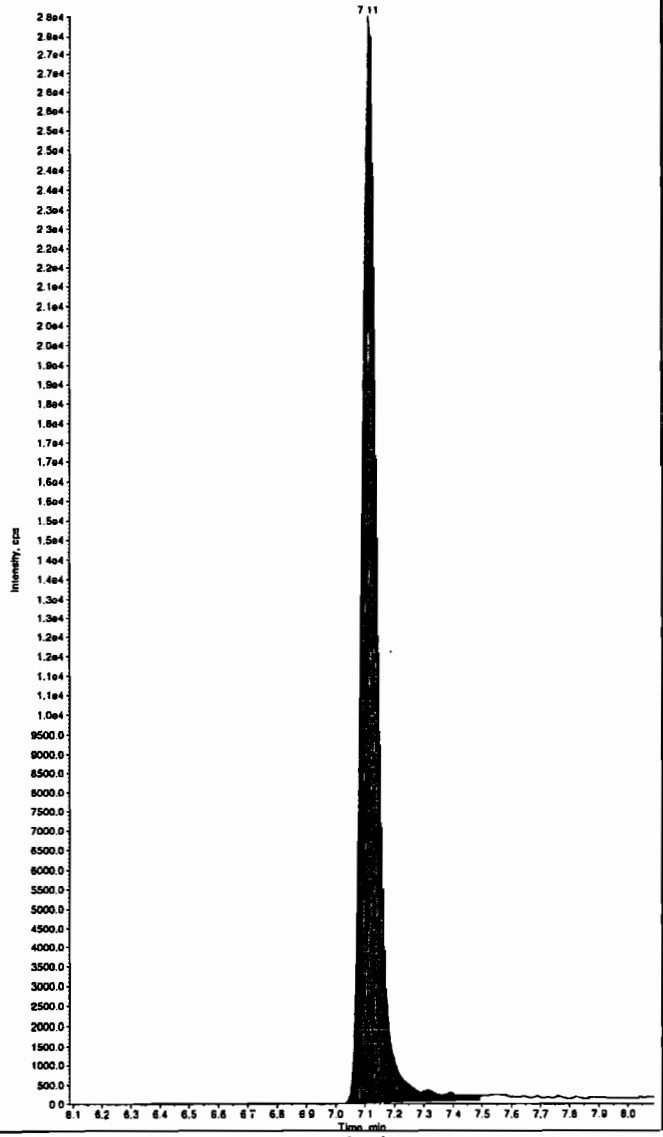
After Ran 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.11 min
Area: 1.08e+005 counts
Height: 28018.894 cps
Start Time: 7.03 min
End Time: 7.49 min

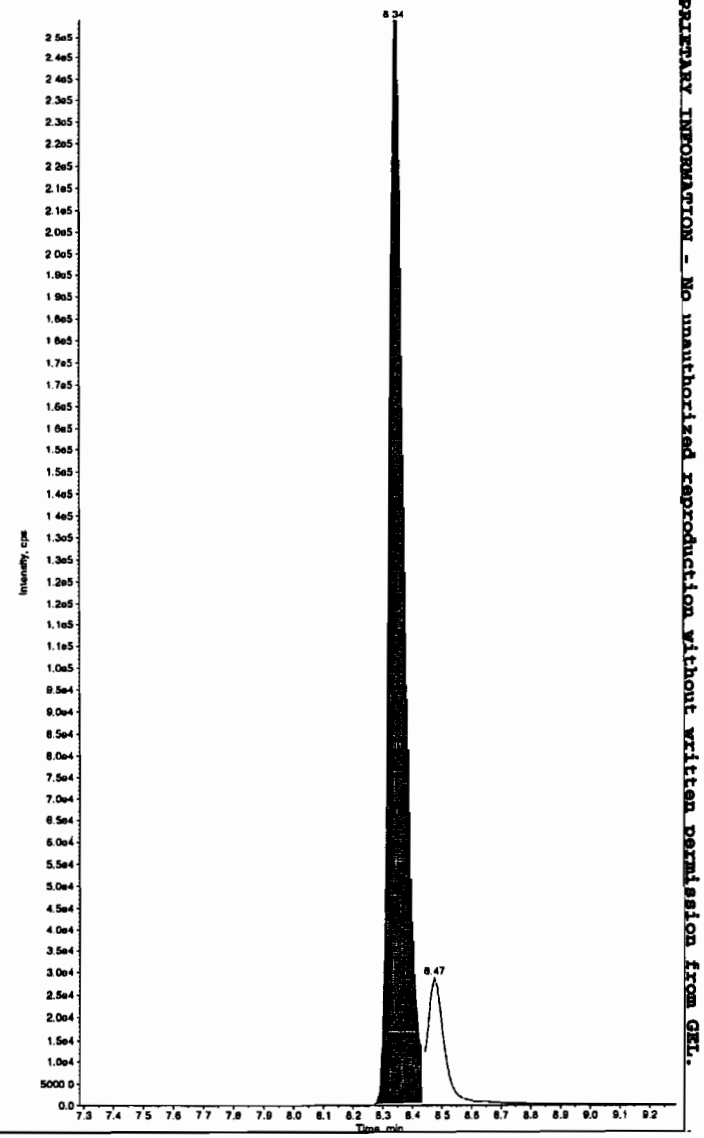


Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.3 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.29 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.35 min
Area: 9.21e+005 counts
Height: 255293.764 cps
Start Time: 8.28 min
End Time: 8.43 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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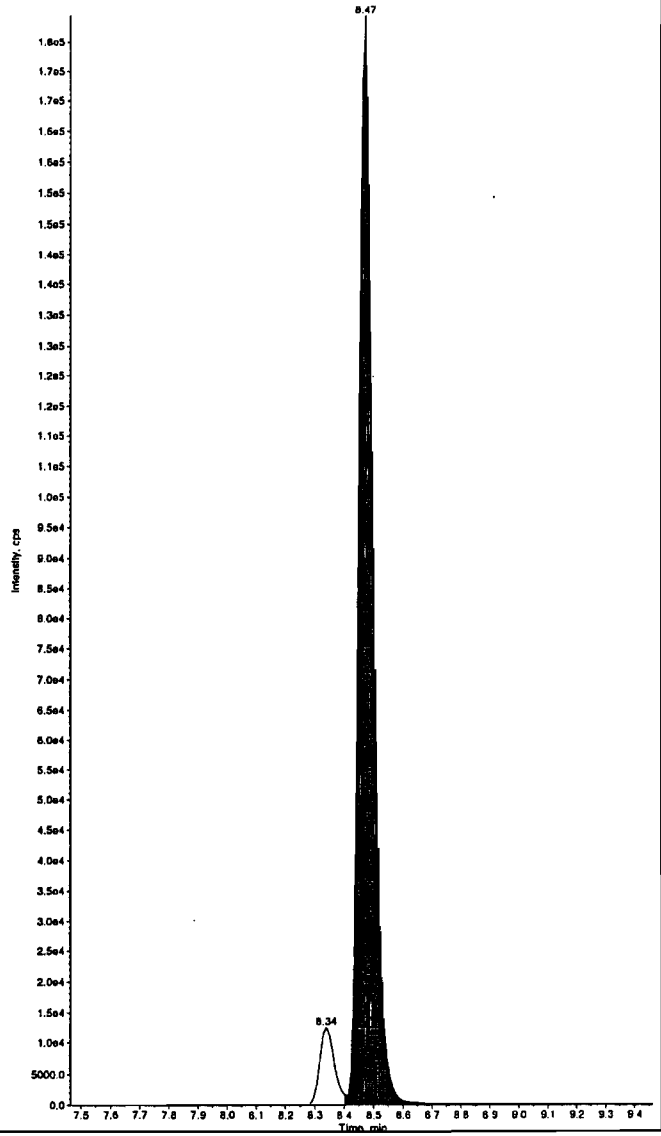
Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 43.5 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 6.30e+005 counts
Height: 179327.957 cps
Start Time: 8.40 min
End Time: 8.81 min

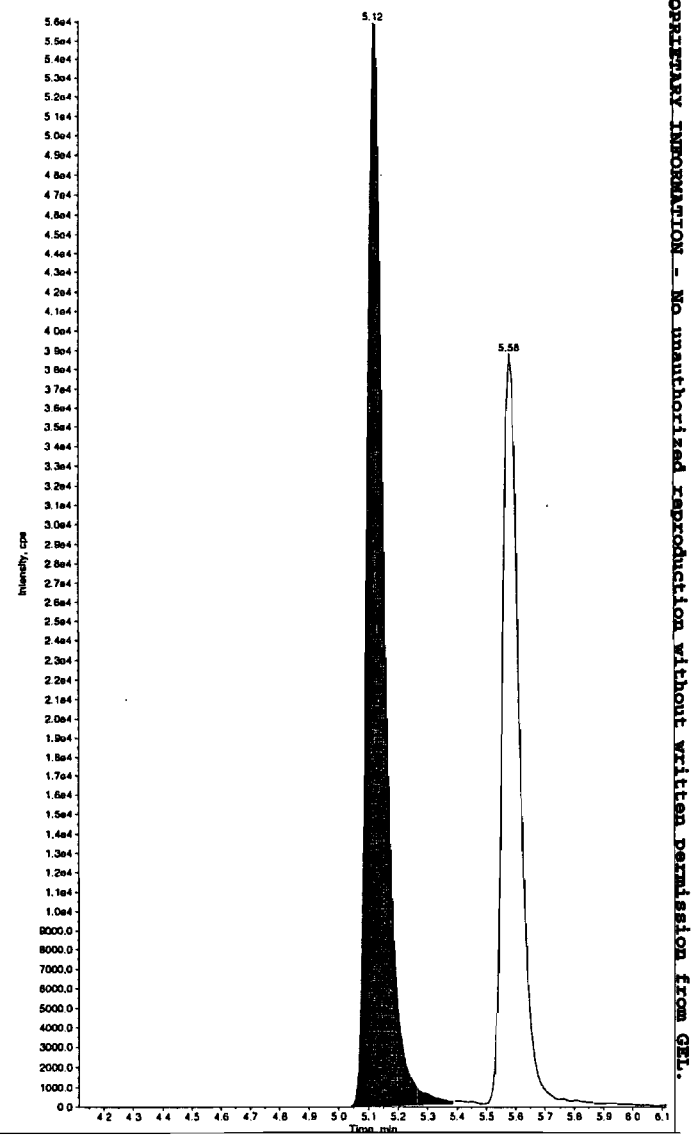


Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 2.38e+005 counts
Height: 56011.360 cps
Start Time: 5.00 min
End Time: 5.38 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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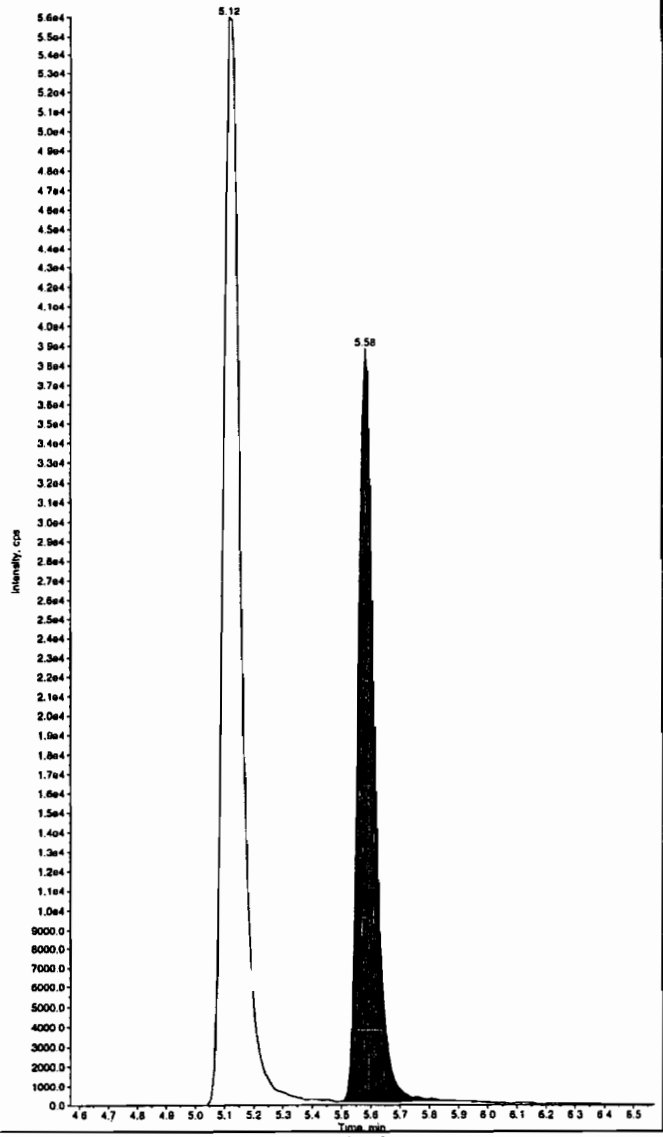
Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.58 min
Area: 1.58e+005 counts
Height: 38749.264 cps
Start Time: 5.50 min
End Time: 5.89 min

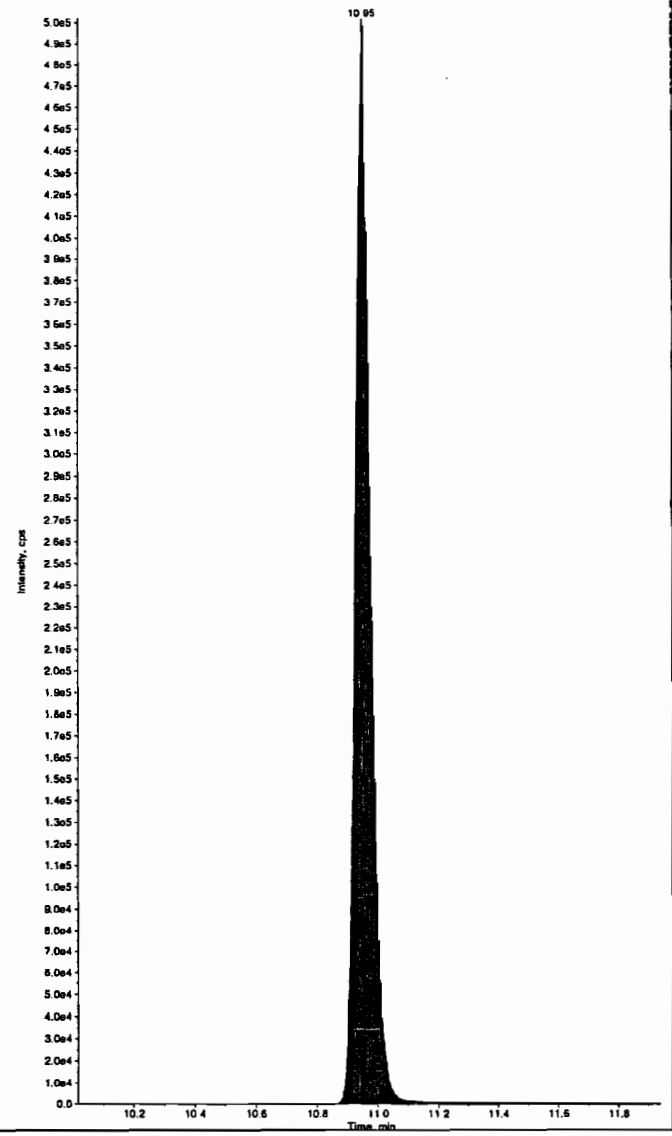


Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.77e+006 counts
Height: 501760.681 cps
Start Time: 10.9 min
End Time: 11.3 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 952677

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 1202041901

Sample Amount 2

Moisture:

Amount Units g

Date Received: 12-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304055a

Date Analyzed: 05-MAR-10 17:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

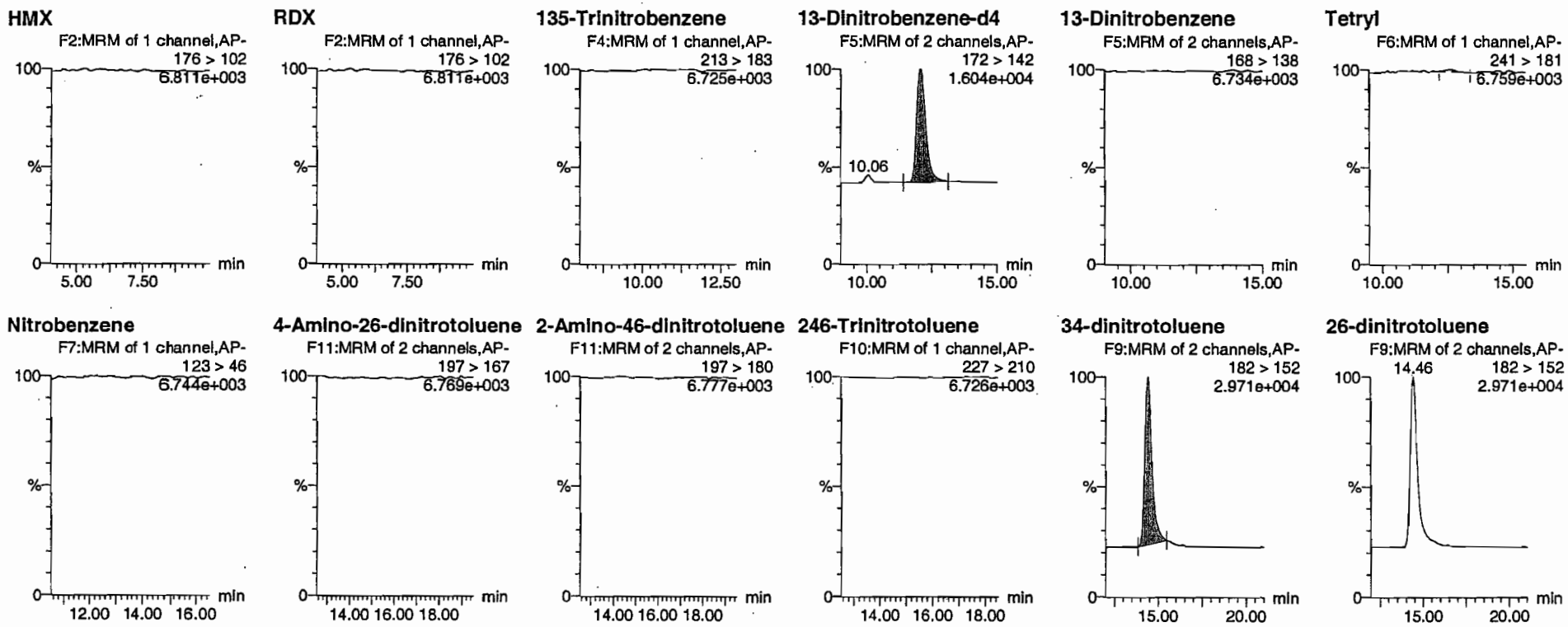
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304055a
Date: 05-Mar-2010
Time: 17:49:24
ID: 1202041901 | LANL | 952679 | Solid | MB | 2 |
Vial: 2:5,A

MAP 3/6/10



HMM 03/07/10

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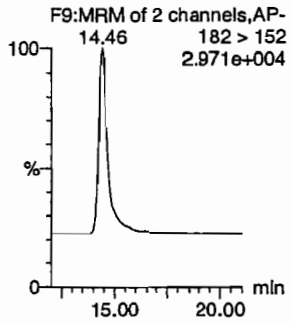
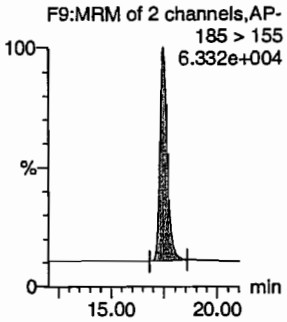
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

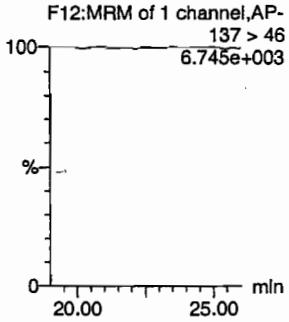
24-dinitrotoluene



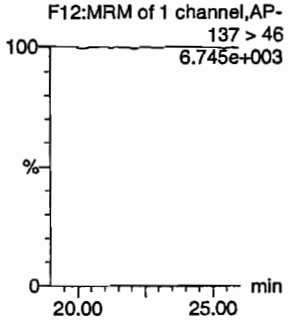
26-dinitrotoluene-d3



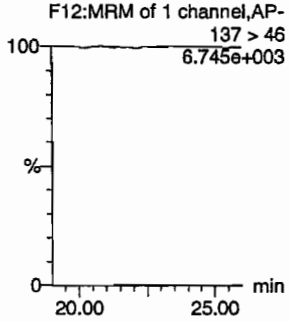
2-Nitrotoluene



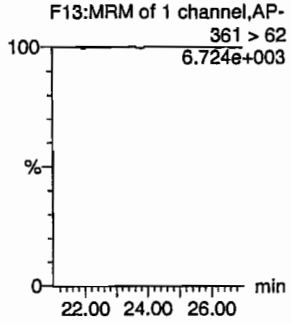
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Int/ml	%Rec	%Dev	S/N
1202041901	HMX	176 > 102			3853.026									
1202041901	RDX	176 > 102			3853.026									
1202041901	135-Trinitrobenzene	213 > 183			3853.026									
1202041901	13-Dinitrobenzene-d4	172 > 142	12.10	3853.026		3853.026	3853.026	bb			548.5845	109.7	9.7	523.3
1202041901	13-Dinitrobenzene	168 > 138			3853.026									
1202041901	Tetryl	241 > 181			3853.026			MM-	06-Mar-10	12:07:21				
1202041901	Nitrobenzene	123 > 46			3853.026									
1202041901	4-Amino-26-dinitrotoluene	197 > 167			22504.688									
1202041901	2-Amino-46-dinitrotoluene	197 > 180			22504.688									
1202041901	246-Trinitrotoluene	227 > 210			22504.688									
1202041901	34-dinitrotoluene	182 > 152	14.46	10829.825	22504.688	10829.825	240.613	bb			248.9611	99.6	-0.4	559.6
1202041901	26-dinitrotoluene	182 > 152			22504.688									
1202041901	24-dinitrotoluene	182 > 152			22504.688									
1202041901	26-dinitrotoluene-d3	185 > 155	17.48	22504.688		22504.688	22504.688	bb			547.2775	109.5	9.5	2060.1
1202041901	2-Nitrotoluene	137 > 46			22504.688									
1202041901	4-Nitrotoluene	137 > 46			22504.688									
1202041901	3-Nitrotoluene	137 > 46			22504.688									
1202041901	PETN	361 > 62			22504.688									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 952677

Lab Code: GEL

GEL Job No (SDG) 10–1747

Matrix: SOIL

GEL Sample ID: 1202041901

Sample Amount 2

Moisture:

Amount Units g

Date Received: 12–FEB–10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19–FEB–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250046.wiff

Date Analyzed: 25–FEB–10 20:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058–38–6	TATB	1000	U
59229–75–3	2,6–Diamino–4–nitrotoluene	2000	U
618–87–1	3,5–Dinitroaniline	1000	U
6629–29–4	2,4–Diamino–6–nitrotoluene	2000	U
78–30–8	tris(o–cresyl) phosphate	1000	U

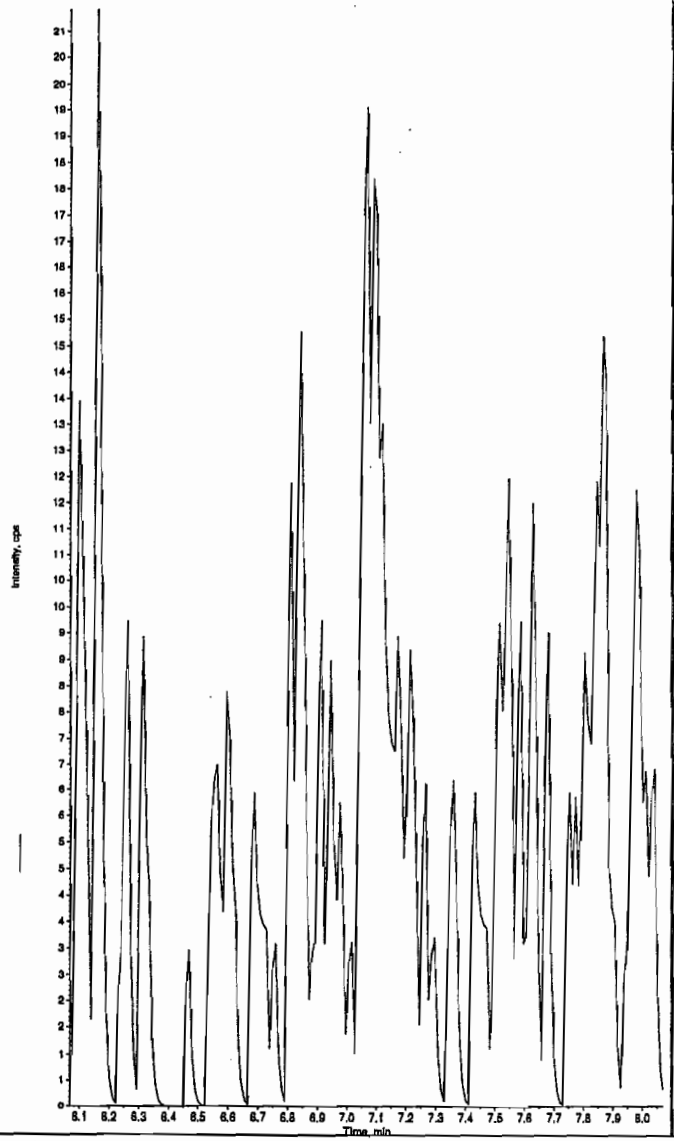
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lar 2/26/10

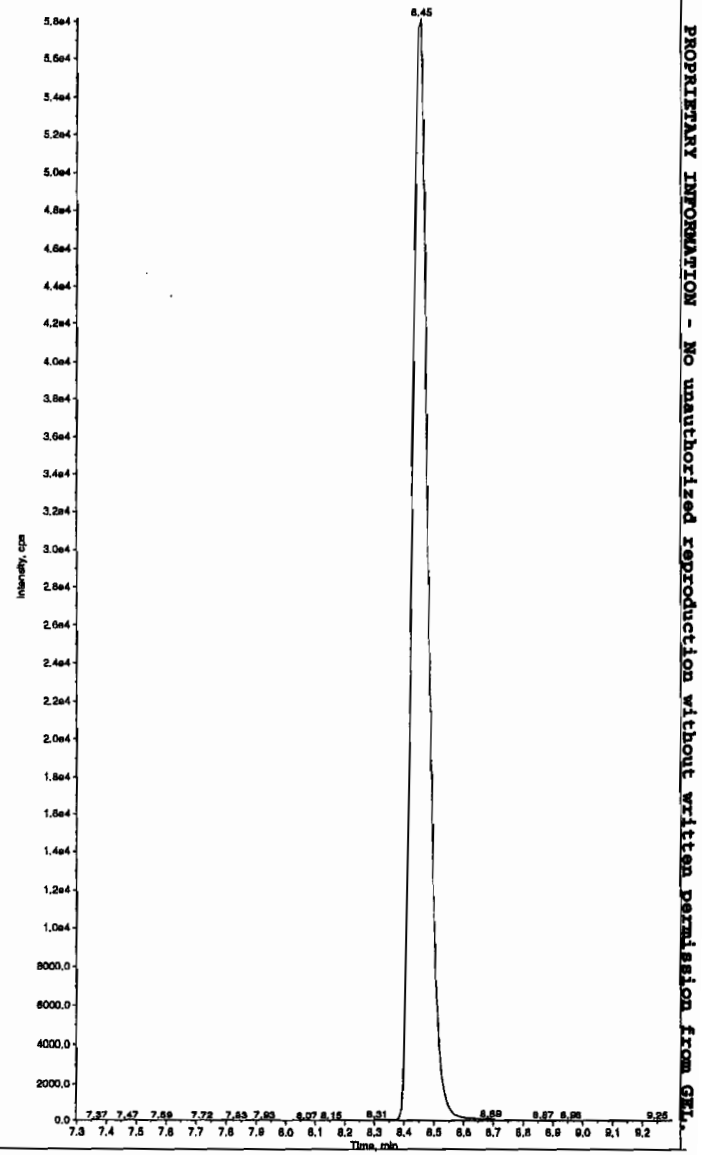
Sample Name: "1202041901" Sample ID: "952679|2|LER" File: "EXS02250046.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:17:45 PM

Modified: No



Sample Name: "1202041901" Sample ID: "952679|2|LER" File: "EXS02250046.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:17:45 PM

Modified: No



HMK 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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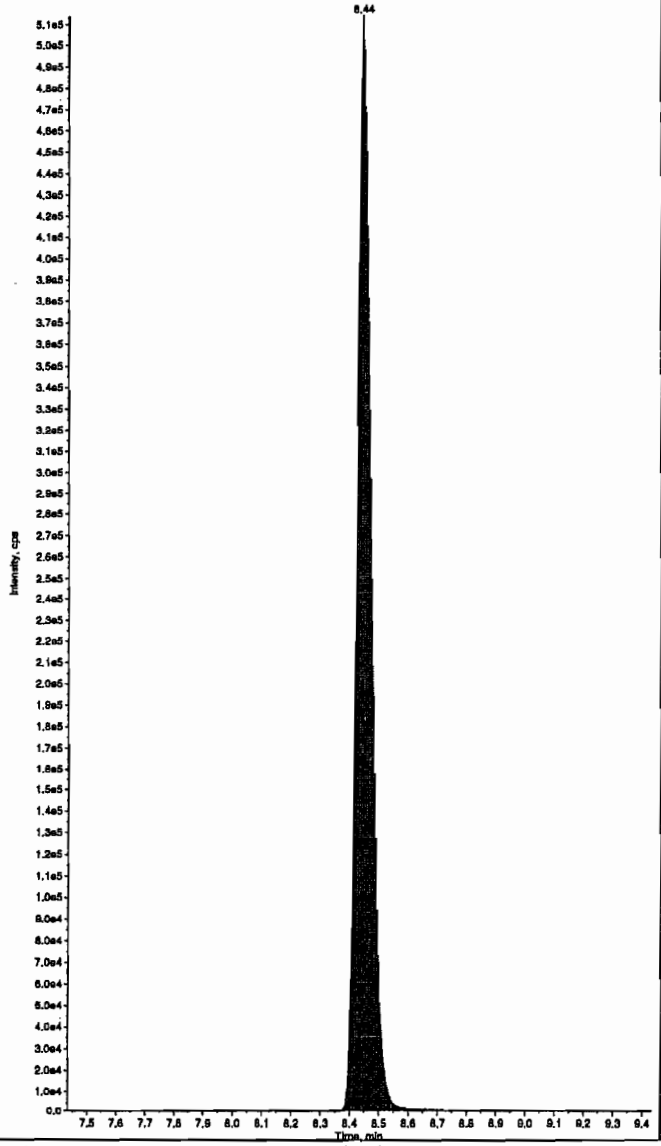
Sample Name: "1202041901" Sample ID: "952679|2|LER" File: "EXS02250046.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 267. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:17:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

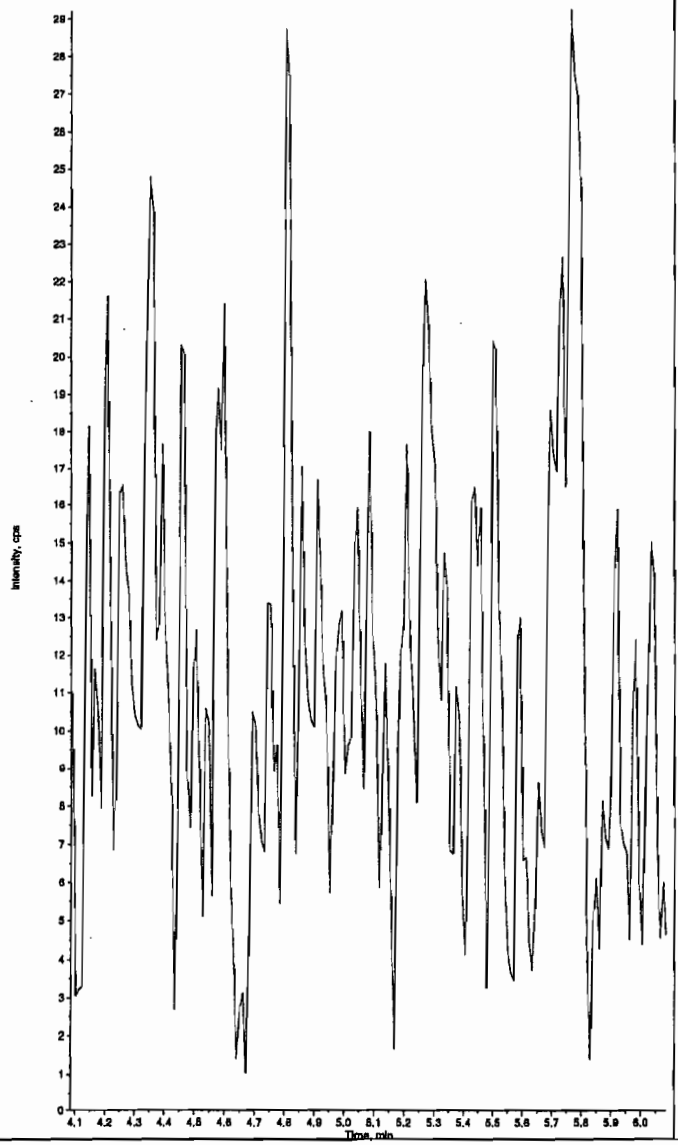
Int. Type: Valley
Retention Time: 8.44 min
Area: 1.81e+006 counts
Height: 514073.425 cps
Start Time: 8.34 min
End Time: 8.78 min



Sample Name: "1202041901" Sample ID: "952679|2|LER" File: "EXS02250046.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:17:45 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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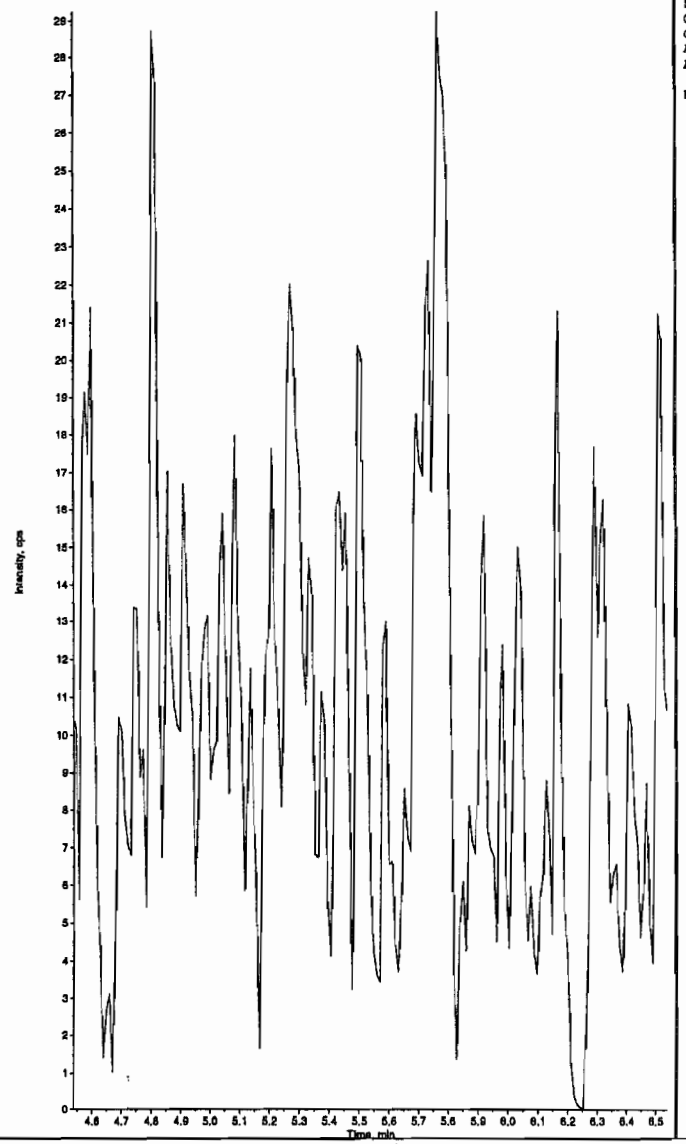
Sample Name: "1202041901" Sample ID: "952679|2|LER" File: "EXS02250046.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:17:45 PM

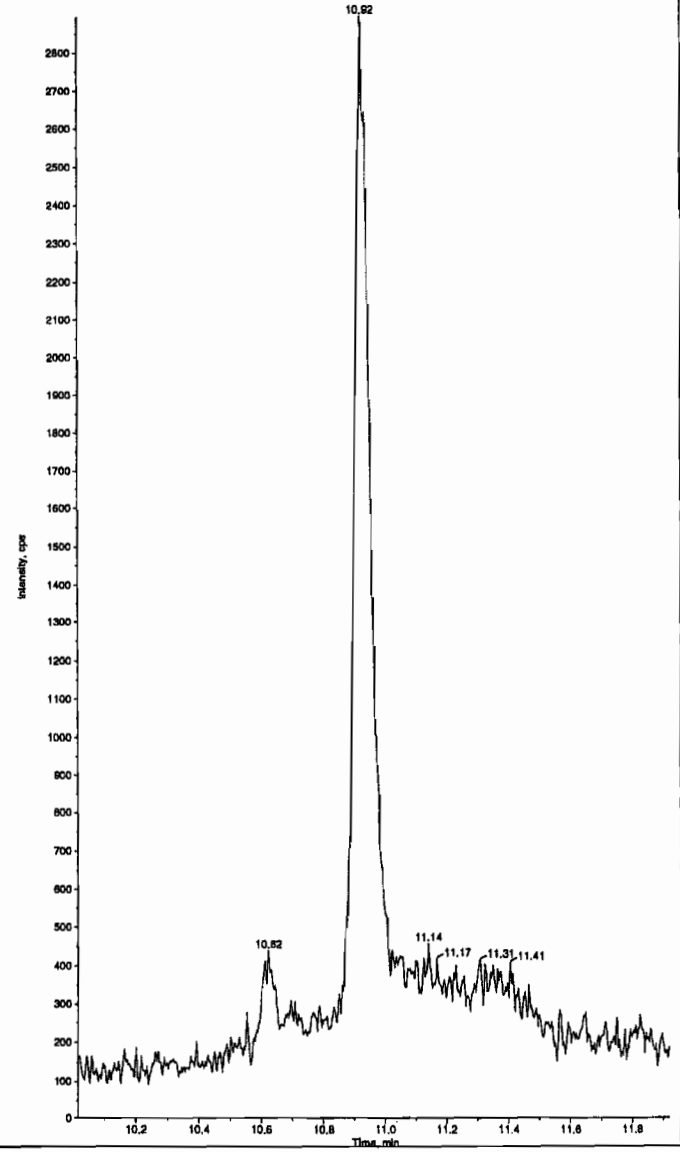
Modified: No



Sample Name: "1202041901" Sample ID: "952679|2|LER" File: "EXS02250046.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:17:45 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 952677

Lab Code: GEL

GEL Job No (SDG) 10-1747

Matrix: SOIL

GEL Sample ID: 1202041902

Sample Amount 2

Moisture:

Amount Units g

Date Received: 12-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304056a

Date Analyzed: 05-MAR-10 18:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4920	
121-14-2	2,4-Dinitrotoluene	4710	
121-82-4	RDX	4350	
19406-51-0	4-Amino-2,6-dinitrotoluene	5230	
2691-41-0	HMX	3740	
35572-78-2	2-Amino-4,6-dinitrotoluene	5300	
479-45-8	Tetryl	2720	
606-20-2	2,6-Dinitrotoluene	4650	
78-11-5	PETN	5420	
88-72-2	o-Nitrotoluene	4590	
98-95-3	Nitrobenzene	4670	
99-08-1	m-Nitrotoluene	4550	
99-35-4	1,3,5-Trinitrobenzene	3930	
99-65-0	m-Dinitrobenzene	4640	
99-99-0	p-Nitrotoluene	4560	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

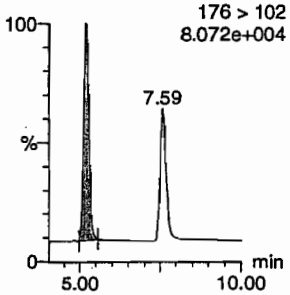
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

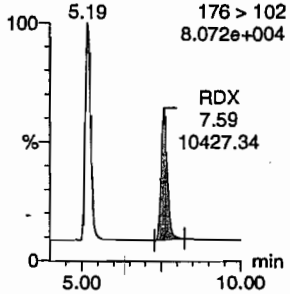
Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304056a
Date: 05-Mar-2010
Time: 18:18:57
ID: 1202041902 | LANL | 952679 | Soil | LC8 | 2 |
Vial: 2:5,B

MM 3/6/10

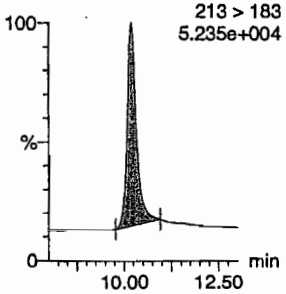
HMX
F2:MRM of 1 channel,AP-
176 > 102
8.072e+004



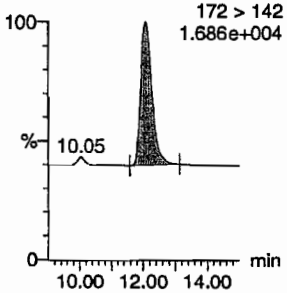
RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
8.072e+004



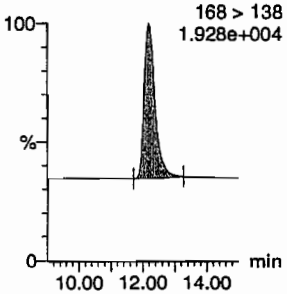
135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.235e+004



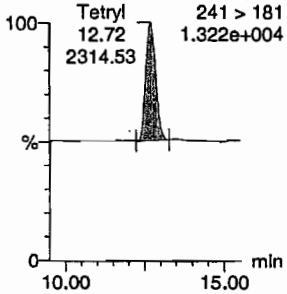
13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.686e+004



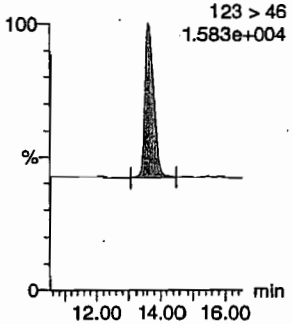
13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.928e+004



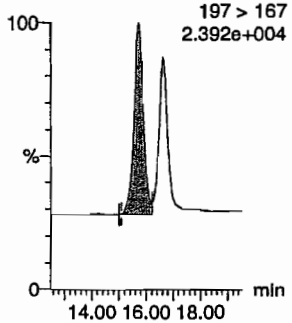
Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.322e+004



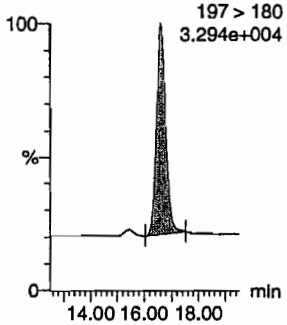
Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.583e+004



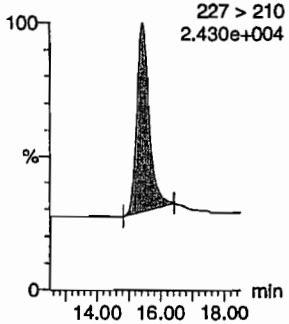
4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.392e+004



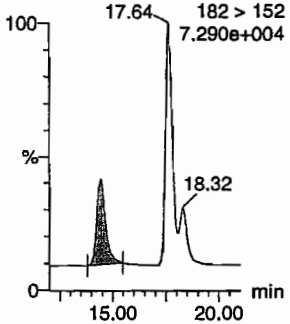
2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.294e+004



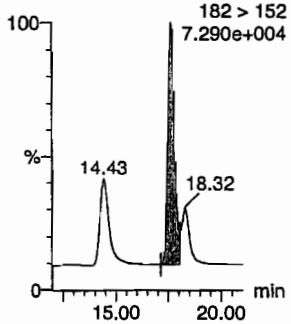
246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.430e+004



34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.290e+004



26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.290e+004



HM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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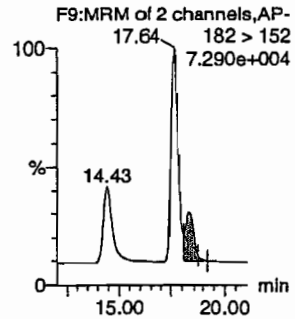
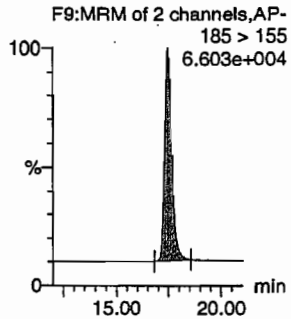
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

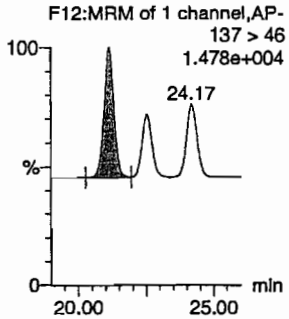
24-dinitrotoluene



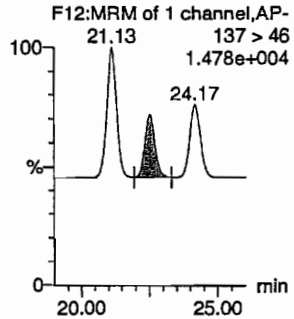
26-dinitrotoluene-d3



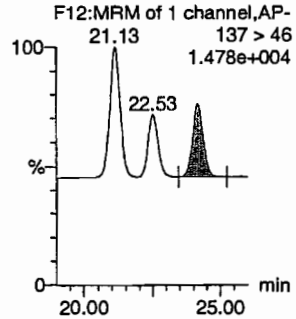
2-Nitrotoluene



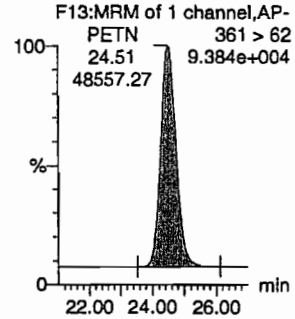
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc/Unit	%Rec	%Dev	S/N
1202041902	HMX	176 > 102	5.19	14623.108	4187.051	14623.108	1746.230	bb			374.3814	74.9	-25.1	1230.9
1202041902	RDX	176 > 102	7.59	10427.343	4187.051	10427.343	1245.189	bb			435.1681	87.0	-13.0	748.5
1202041902	135-Trinitrobenzene	213 > 183	10.20	12808.463	4187.051	12808.463	1529.533	bb			392.8109	78.6	-21.4	850.6
1202041902	13-Dinitrobenzene-d4	172 > 142	12.07	4187.051		4187.051	4187.051	bb			596.1422	119.2	19.2	415.6
1202041902	13-Dinitrobenzene	168 > 138	12.20	4918.935	4187.051	4918.935	587.399	bb			463.8105	92.8	-7.2	275.6
1202041902	Tetryl	241 > 181	12.72	2314.527	4187.051	2314.527	276.391	bb			271.6234	54.3	-45.7	203.5
1202041902	Nitrobenzene	123 > 46	13.63	3227.431	4187.051	3227.431	385.406	bb			466.7438	93.3	-6.7	270.5
1202041902	4-Amino-26-dinitrotoluene	197 > 167	15.74	6922.412	24004.590	6922.412	144.189	MM	06-Mar-10	12:10:29	522.7518	104.6	4.6	208.9
1202041902	2-Amino-46-dinitrotoluene	197 > 180	16.63	10310.345	24004.590	10310.345	214.758	bb			530.1319	106.0	6.0	293.4
1202041902	246-Trinitrotoluene	227 > 210	15.45	7754.390	24004.590	7754.390	161.519	bb			491.5259	98.3	-1.7	1052.9
1202041902	34-dinitrotoluene	182 > 152	14.43	11193.409	24004.590	11193.409	233.151	bb			241.2410	96.5	-3.5	455.0
1202041902	26-dinitrotoluene	182 > 152	17.64	24889.555	24004.590	24889.555	518.433	MM	06-Mar-10	12:14:03	464.7364	92.9	-7.1	1286.3
1202041902	24-dinitrotoluene	182 > 152	18.32	6238.063	24004.590	6238.063	129.935	MM	06-Mar-10	12:16:02	471.3804	94.3	-5.7	295.5
1202041902	26-dinitrotoluene-d3	185 > 155	17.49	24004.590		24004.590	24004.590	bb			583.7527	116.8	16.8	1875.2
1202041902	2-Nitrotoluene	137 > 46	21.13	3411.326	24004.590	3411.326	71.056	bb			458.7233	91.7	-8.3	336.0
1202041902	4-Nitrotoluene	137 > 46	22.53	1668.751	24004.590	1668.751	34.759	bb			455.7127	91.1	-8.9	159.9
1202041902	3-Nitrotoluene	137 > 46	24.17	2061.829	24004.590	2061.829	42.947	bb			455.1615	91.0	-9.0	187.6
1202041902	PETN	361 > 62	24.51	48557.266	24004.590	48557.266	1011.416	bb			542.0098	108.4	8.4	4851.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 952677

Lab Code: GEL

GEL Job No (SDG) 10–1747

Matrix: SOIL

GEL Sample ID: 1202041902

Sample Amount 2

Moisture:

Amount Units g

Date Received: 12–FEB–10

Extraction Type Sonication

Extraction Batch ID: 952677

Concentrated Extract Volume (mL) 10

Date Extracted: 19–FEB–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02250047.wiff

Date Analyzed: 25–FEB–10 20:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058–38–6	TATB	6480	
59229–75–3	2,6–Diamino–4–nitrotoluene	5700	
618–87–1	3,5–Dinitroaniline	4930	
6629–29–4	2,4–Diamino–6–nitrotoluene	4530	
78–30–8	tris(o–cresyl) phosphate	5020	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

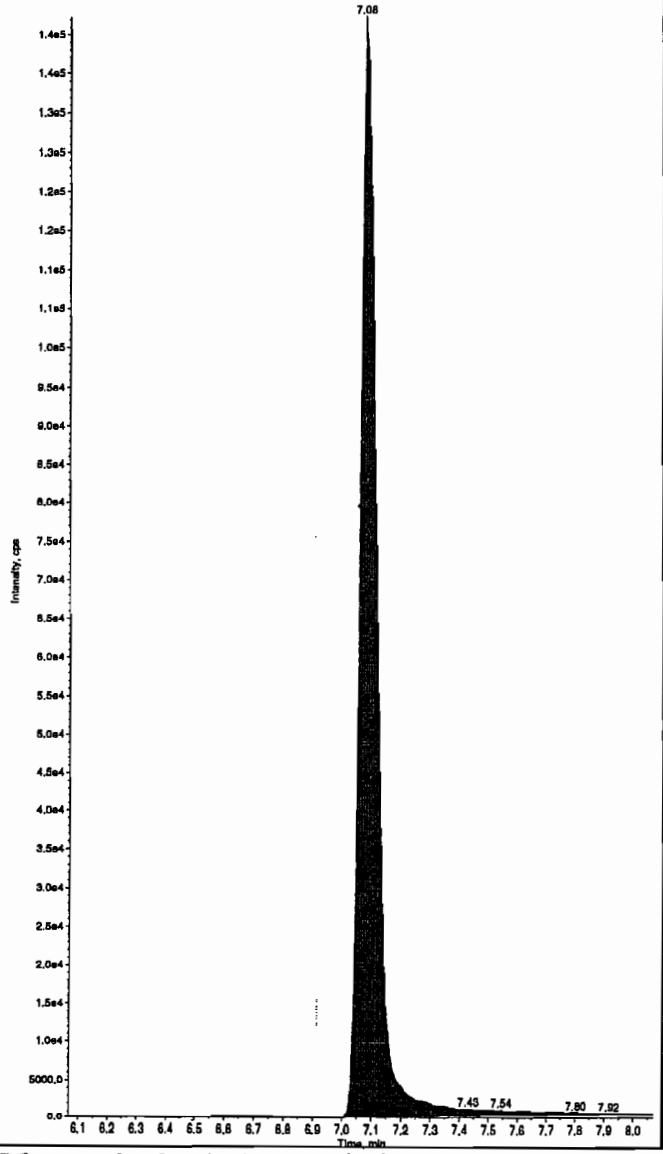
Lcm 2/26/10

Sample Name: "1202041902" Sample ID: "952679|2|LER" File: "EXS02250047.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 648. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:33:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.08 min
Area: 6.10e+005 counts
Height: 142245.514 cps
Start Time: 7.00 min
End Time: 7.97 min

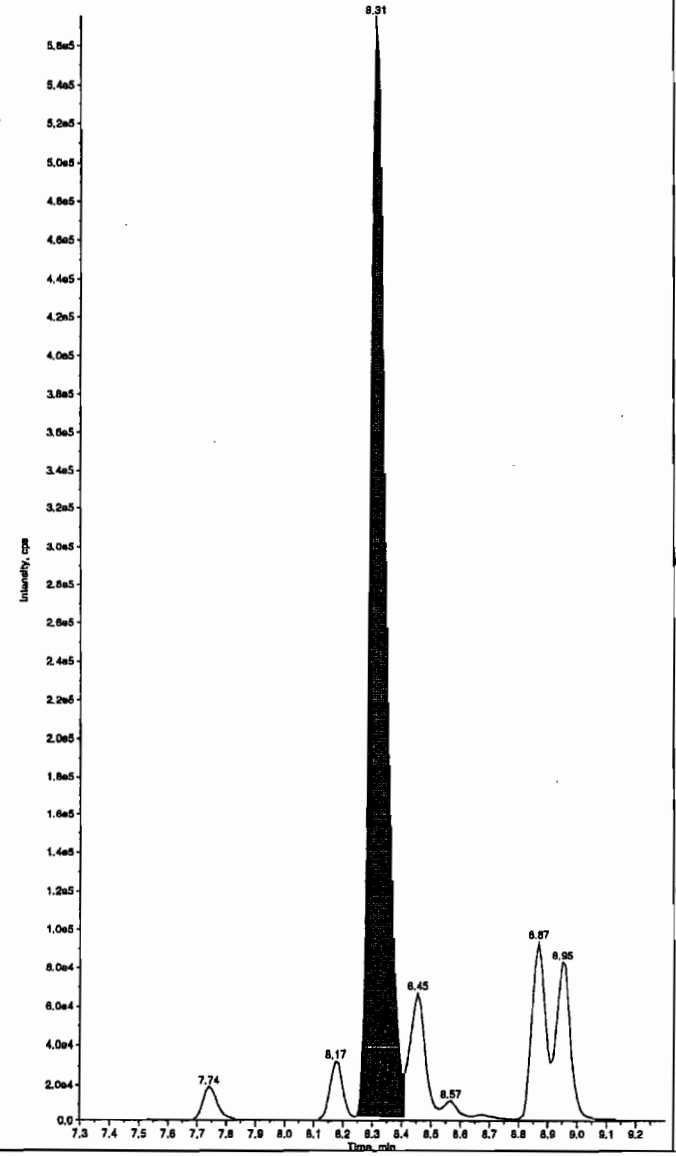


Sample Name: "1202041902" Sample ID: "952679|2|LER" File: "EXS02250047.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 493. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:33:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.31 min
Area: 2.24e+006 counts
Height: 573461.304 cps
Start Time: 8.24 min
End Time: 8.41 min



HMK 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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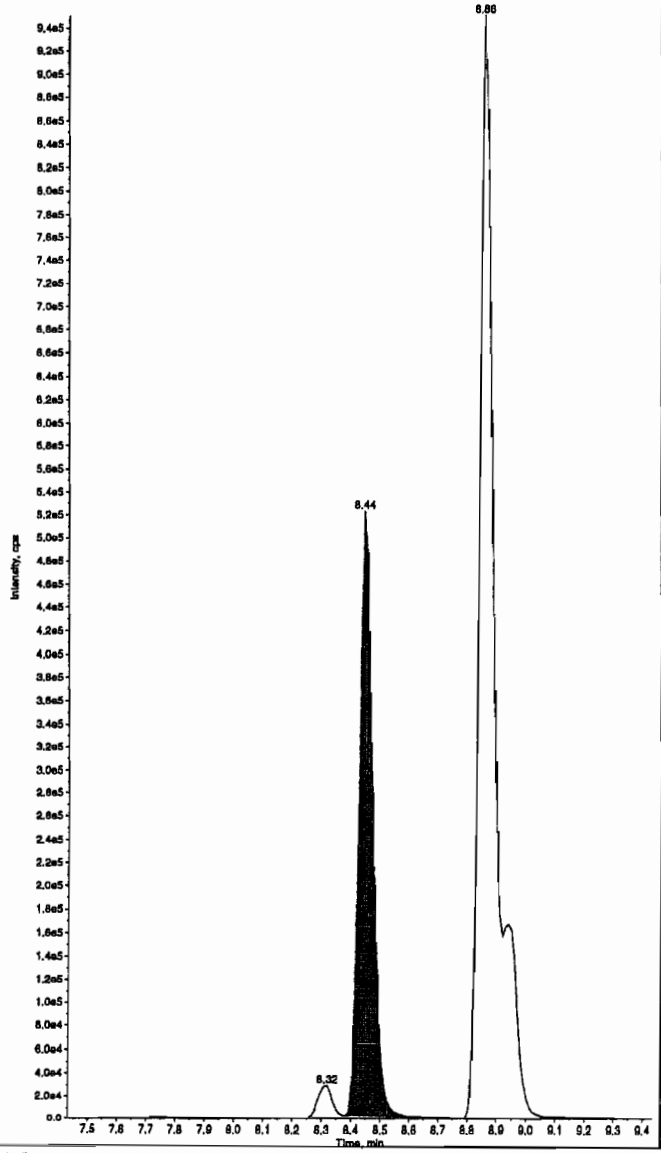
Sample Name: "1202041902" Sample ID: "952679|2|LER" File: "EXS02250047.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 256. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:33:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.44 min
Area: 1.75e+006 counts
Height: 519976.501 cps
Start Time: 8.38 min
End Time: 8.63 min

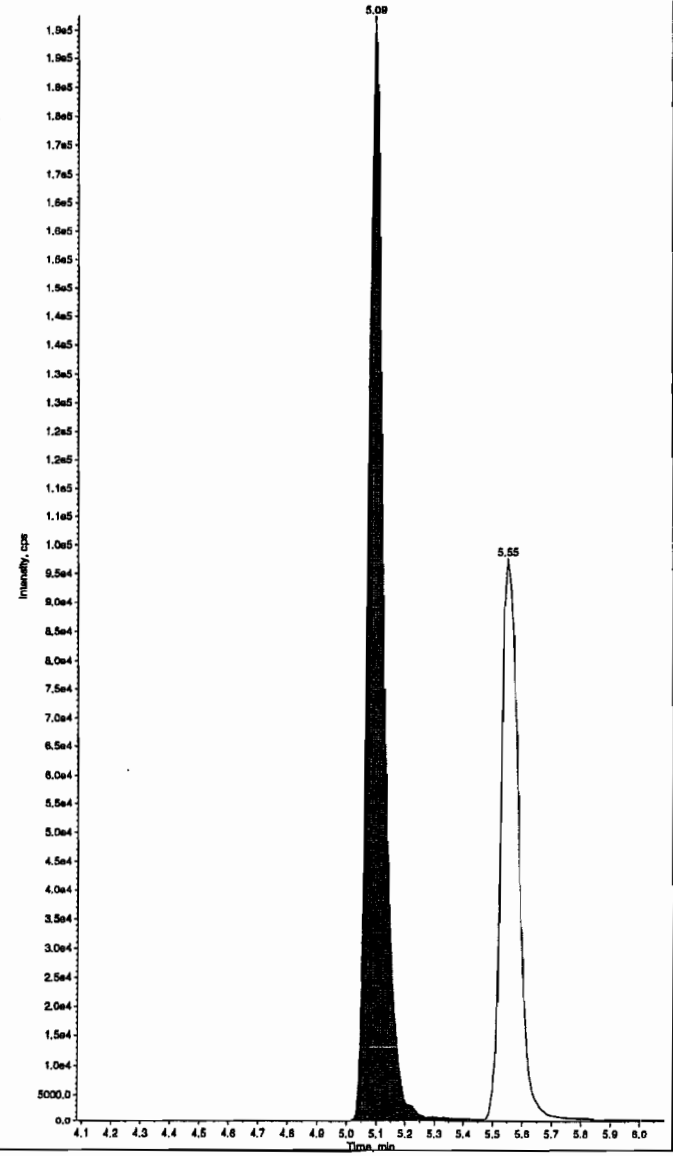


Sample Name: "1202041902" Sample ID: "952679|2|LER" File: "EXS02250047.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 570. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:33:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.09 min
Area: 7.42e+005 counts
Height: 192551.773 cps
Start Time: 4.99 min
End Time: 5.41 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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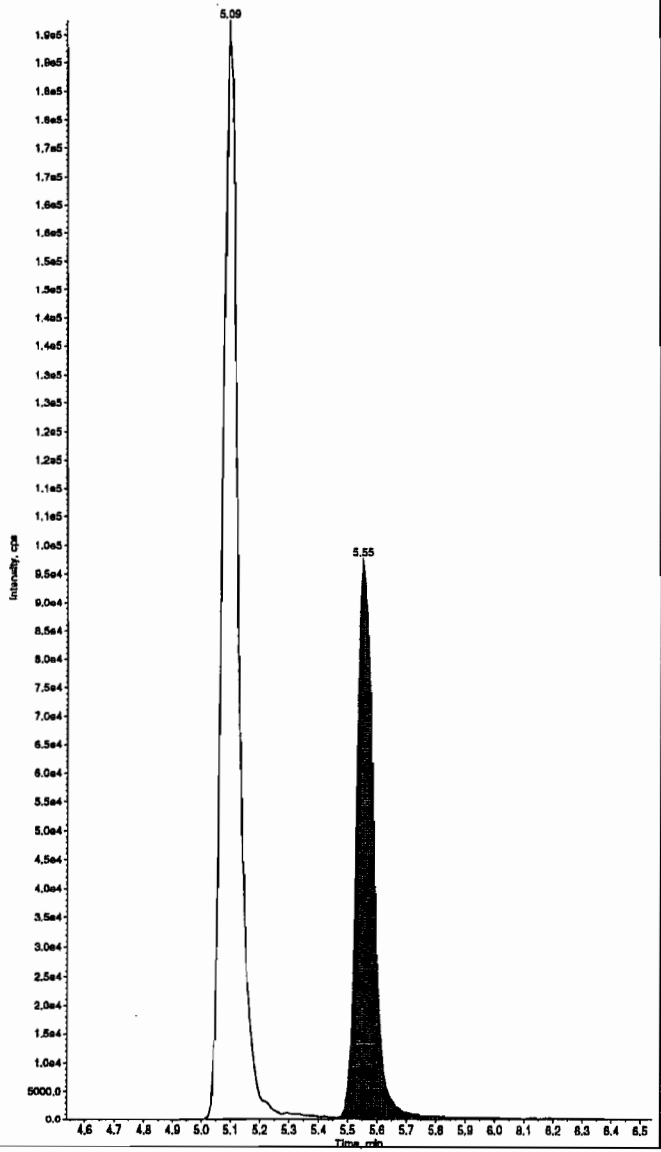
Sample Name: "1202041902" Sample ID: "952679|2|LER" File: "EXS02250047.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 453. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:33:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.55 min
Area: 4.10e+005 counts
Height: 97428.123 cps
Start Time: 5.45 min
End Time: 5.87 min

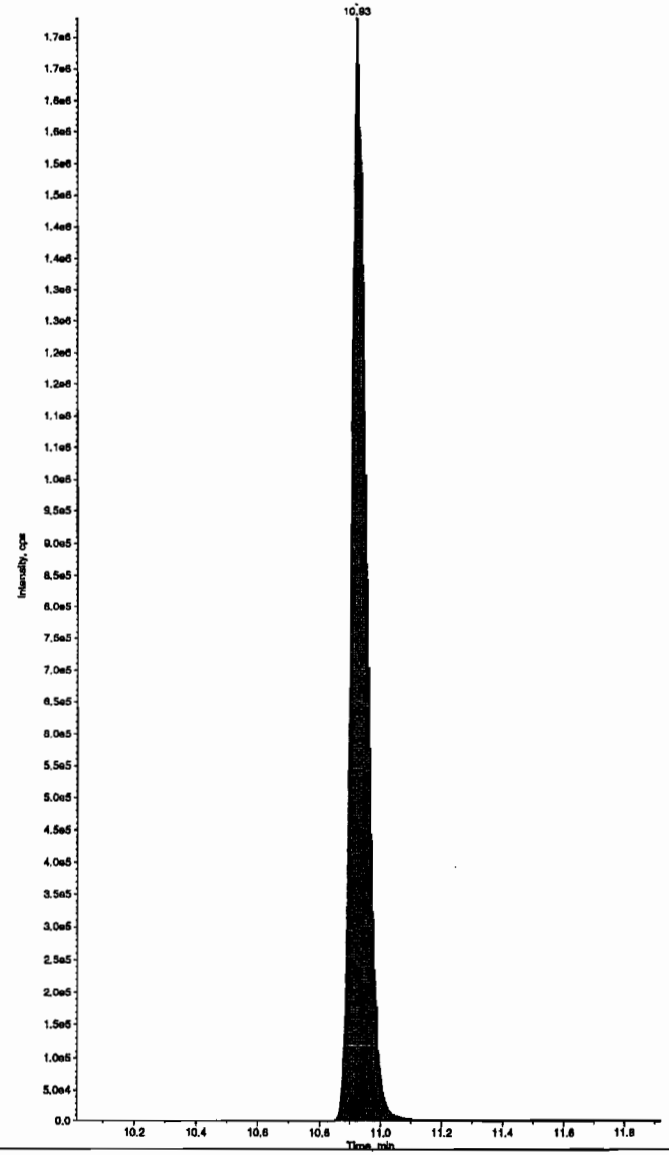


Sample Name: "1202041902" Sample ID: "952679|2|LER" File: "EXS02250047.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 502. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 8:33:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.26e+006 counts
Height: 1730988.403 cps
Start Time: 10.8 min
End Time: 11.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 952677 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202041901 MB	19-FEB-2010 14:33:00	2	10	5
1202041902 LCS	19-FEB-2010 14:33:00	2	10	5
246721001	19-FEB-2010 14:33:00	2	10	5
1202041903 MS (246721001)	19-FEB-2010 14:33:00	2	10	5
1202041904 MSD (246721001)	19-FEB-2010 14:33:00	2	10	5
246721002	19-FEB-2010 14:33:00	2	10	5
246837001	19-FEB-2010 14:33:00	2	10	5
246837002	19-FEB-2010 14:33:00	2	10	5
246837003	19-FEB-2010 14:33:00	2	10	5
246837004	19-FEB-2010 14:33:00	2	10	5
246837005	19-FEB-2010 14:33:00	2	10	5
246837006	19-FEB-2010 14:33:00	2	10	5
246841001	19-FEB-2010 14:33:00	2	10	5
246841002	19-FEB-2010 14:33:00	2	10	5
246841003	19-FEB-2010 14:33:00	2	10	5
246843002	19-FEB-2010 14:33:00	2	10	5
246843003	19-FEB-2010 14:33:00	2	10	5
246843004	19-FEB-2010 14:33:00	2	10	5
246846001	19-FEB-2010 14:33:00	2	10	5
246846002	19-FEB-2010 14:33:00	2	10	5
246847001	19-FEB-2010 14:33:00	2	10	5
246847002	19-FEB-2010 14:33:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202041902	8321 Explosives LCS	DCX100208-03	.1	mL
LCS	1202041902	8321 LANL Explosives Mix 10mg/L	UXX100210-02.3	1	mL
MS	1202041903	8321 Explosives LCS	DCX100208-03	.1	mL
MS	1202041903	8321 LANL Explosives Mix 10mg/L	UXX100210-02.3	1	mL
MSD	1202041904	8321 Explosives LCS	DCX100208-03	.1	mL
MSD	1202041904	8321 LANL Explosives Mix 10mg/L	UXX100210-02.3	1	mL
SURR	All	3,4-Dinitrotolnene (8330 Surr.) 100ppm	DXP100218-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date:03/04/10
Extr. Injection Volume: 50uL
Sequence Number: 030410expA
Initial Calibration Date: 03/04/10

Method: SW846 8321A-Modified
Int. Std.: UXX1000220-01
Mobile Phase Lot#: 1277087, 1268566
Standard-Samp Reagent Lot#: 1274562, 1271949

Reviewed BY: HMW
Date: 03/07/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100304-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0304O01a	XIBLK01	MAP	3/4/10 15:16			1		USE	B
EXP0304O02a	XIBLK01	MAP	3/4/10 15:46			1		USE	B
EXP0304O03a	WXXICAL-01	MAP	3/4/10 16:15			1		USE	I
EXP0304O04a	WXXICAL-02	MAP	3/4/10 16:45			1		USE	I
EXP0304O05a	WXXICAL-03	MAP	3/4/10 17:14			1		USE	I
EXP0304O06a	WXXICAL-04	MAP	3/4/10 17:44			1		USE	I
EXP0304O07a	WXXICAL-05	MAP	3/4/10 18:13			1		USE	I
EXP0304O08a	WXXICAL-06	MAP	3/4/10 18:43			1		USE	I
EXP0304O09a	XIBLK02	MAP	3/4/10 19:12			1		USE	B
EXP0304O10a	WXXICV	MAP	3/4/10 19:41			1		USE	C
EXP0304O11a	XIBLK03	MAP	3/4/10 20:11			1		USE	B
EXP0304O12a	WXXCRI	MAP	3/4/10 20:40			1		USE	C
EXP0304O13a	1202038795	MAP	3/4/10 21:10	951357	Various	2	LANL	USE	S
EXP0304O14a	1202038796	MAP	3/4/10 21:39	951357	Various	2	LANL	USE	S
EXP0304O15a	246610001	MAP	3/4/10 22:09	951357	10-1701	2	LANL	USE	S
EXP0304O16a	1202038797	MAP	3/4/10 22:38	951357	10-1701	2	LANL	USE	S
EXP0304O17a	1202038798	MAP	3/4/10 23:08	951357	10-1701	2	LANL	DUSE-RA	S
EXP0304O18a	246610002	MAP	3/4/10 23:37	951357	10-1701	2	LANL	USE	S
EXP0304O19a	246610003	MAP	3/5/10 0:07	951357	10-1701	2	LANL	USE	S
EXP0304O20a	246611001	MAP	3/5/10 0:36	951357	10-1702	2	LANL	USE	S
EXP0304O21a	246611002	MAP	3/5/10 1:06	951357	10-1702	2	LANL	USE	S
EXP0304O22a	246611003	MAP	3/5/10 1:35	951357	10-1702	2	LANL	USE	S
EXP0304O23a	WXXCCV	MAP	3/5/10 2:05			1		USE	C
EXP0304O24a	XIBLK04	MAP	3/5/10 2:34			1		USE	B
EXP0304O25a	WXXCRI	MAP	3/5/10 3:04			1		USE	C
EXP0304O26a	1202038789	MAP	3/5/10 3:33	951353	Various	2	LANL	USE	S
EXP0304O27a	1202038790	MAP	3/5/10 4:03	951353	Various	2	LANL	USE	S
EXP0304O28a	246588002	MAP	3/5/10 4:32	951353	10-1688	2	LANL	USE	S
EXP0304O29a	1202038791	MAP	3/5/10 5:02	951353	10-1688	2	LANL	USE	S

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EXP0304030a	1202038792	MAP	3/5/10 5:31	951353	10-1688	2	LANL	USE	S
EXP0304031a	246588003	MAP	3/5/10 6:01	951353	10-1688	2	LANL	USE	S
EXP0304032a	246588004	MAP	3/5/10 6:30	951353	10-1688	2	LANL	USE	S
EXP0304033a	246588005	MAP	3/5/10 7:00	951353	10-1688	2	LANL	USE	S
EXP0304034a	246588006	MAP	3/5/10 7:29	951353	10-1688	2	LANL	USE	S
EXP0304035a	246588007	MAP	3/5/10 7:59	951353	10-1688	2	LANL	USE	S
EXP0304036a	WXXCCV	MAP	3/5/10 8:28			1		USE	C
EXP0304037a	XIBLK05	MAP	3/5/10 8:58			1		USE	B
EXP0304038a	WXXCRI	MAP	3/5/10 9:27			1		USE	C
EXP0304039a	246588008	MAP	3/5/10 9:57	951353	10-1688	2	LANL	USE	S
EXP0304040a	246588009	MAP	3/5/10 10:26	951353	10-1688	2	LANL	USE	S
EXP0304041a	246588010	MAP	3/5/10 10:56	951353	10-1688	2	LANL	USE	S
EXP0304042a	246588011	MAP	3/5/10 11:25	951353	10-1688	2	LANL	USE	S
EXP0304043a	246588012	MAP	3/5/10 11:55	951353	10-1688	2	LANL	USE	S
EXP0304044a	246605001	MAP	3/5/10 12:24	951353	10-1698-1	2	LANL	USE	S
EXP0304045a	246605002	MAP	3/5/10 12:54	951353	10-1698-1	2	LANL	USE	S
EXP0304046a	246605003	MAP	3/5/10 13:23	951353	10-1698-1	2	LANL	USE	S
EXP0304047a	246605004	MAP	3/5/10 13:53	951353	10-1698-1	2	LANL	USE	S
EXP0304048a	246605005	MAP	3/5/10 14:22	951353	10-1698-1	2	LANL	USE	S
EXP0304049a	WXXCCV	MAP	3/5/10 14:52			1	LANL	USE	C
EXP0304050a	XIBLK06	MAP	3/5/10 15:21			1	LANL	USE	B
EXP0304051a	WXXCRI	MAP	3/5/10 15:51			1	LANL	USE	C
EXP0304052a	246605006	MAP	3/5/10 16:20	951353	10-1698-1	2	LANL	USE	S
EXP0304053a	1202038798	MAP	3/5/10 16:50	951357	10-1701	2	LANL	USE	S
EXP0304054a	XIBLK07	MAP	3/5/10 17:19			1	LANL	USE	B
EXP0304055a	1202041901	MAP	3/5/10 17:49	952679	Various	2	LANL	USE	S
EXP0304056a	1202041902	MAP	3/5/10 18:18	952679	Various	2	LANL	USE	S
EXP0304057a	246721001	MAP	3/5/10 18:48	952679	10-1709	2	LANL	USE	S
EXP0304058a	1202041903	MAP	3/5/10 19:17	952679	10-1709	2	LANL	USE	S
EXP0304059a	1202041904	MAP	3/5/10 19:47	952679	10-1709	2	LANL	USE	S
EXP0304060a	246721002	MAP	3/5/10 20:16	952679	10-1709	2	LANL	USE	S
EXP0304061a	246837001	MAP	3/5/10 20:46	952679	10-1747	2	LANL	USE	S
EXP0304062a	246837002	MAP	3/5/10 21:15	952679	10-1747	2	LANL	USE	S
EXP0304063a	246837003	MAP	3/5/10 21:45	952679	10-1747	2	LANL	USE	S
EXP0304064a	WXXCCV	MAP	3/5/10 22:14			1		USE	C
EXP0304065a	XIBLK08	MAP	3/5/10 22:44			1		USE	B
EXP0304066a	WXXCRI	MAP	3/5/10 23:13			1		USE	C

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EXP0304067a	246837004	MAP	3/5/10 23:43	952679	10-1747	2	LANL	USE	S
EXP0304068a	246837005	MAP	3/6/10 0:13	952679	10-1747	2	LANL	USE	S
EXP0304069a	246837006	MAP	3/6/10 0:42	952679	10-1747	2	LANL	USE	S
EXP0304070a	246841001	MAP	3/6/10 1:11	952679	10-1748	2	LANL	USE	S
EXP0304071a	246841002	MAP	3/6/10 1:41	952679	10-1748	2	LANL	USE	S
EXP0304072a	246841003	MAP	3/6/10 2:11	952679	10-1748	2	LANL	USE	S
EXP0304073a	246843002	MAP	3/6/10 2:40	952679	10-1749	2	LANL	USE	S
EXP0304074a	246843003	MAP	3/6/10 3:10	952679	10-1749	2	LANL	USE	S
EXP0304075a	246843004	MAP	3/6/10 3:39	952679	10-1749	2	LANL	USE	S
EXP0304076a	WXXCCV	MAP	3/6/10 4:08			1		USE	C
EXP0304077a	XIBLK09	MAP	3/6/10 4:38			1		USE	B
EXP0304078a	WXXCRI	MAP	3/6/10 5:08			1		USE	C
EXP0304079a	246846001	MAP	3/6/10 5:37	952679	10-1750	2	LANL	USE	S
EXP0304080a	246846002	MAP	3/6/10 6:07	952679	10-1750	2	LANL	USE	S
EXP0304081a	246847001	MAP	3/6/10 6:36	952679	10-1751	2	LANL	USE	S
EXP0304082a	246847002	MAP	3/6/10 7:06	952679	10-1751	2	LANL	USE	S
EXP0304083a	XIBLK10	MAP	3/6/10 7:35			1		USE	B
EXP0304084a	1202045764	MAP	3/6/10 8:05	954338	Various	2	LANL	USE	S
EXP0304085a	1202045765	MAP	3/6/10 8:34	954338	Various	2	LANL	USE	S
EXP0304086a	247083001	MAP	3/6/10 9:04	954338	10-1827	2	LANL	USE	S
EXP0304087a	1202045766	MAP	3/6/10 9:33	954338	10-1827	2	LANL	USE	S
EXP0304088a	1202045767	MAP	3/6/10 10:03	954338	10-1827	2	LANL	USE	S
EXP0304089a	WXXCCV	MAP	3/6/10 10:32			1		USE	C
EXP0304090a	XIBLK11	MAP	3/6/10 11:02			1		USE	B
EXP0304091a	WXXCRI	MAP	3/6/10 11:31			1		USE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 02/25/10
Extr. Injection Volume: 10uL
Sequence Number: 022510exs
Initial Calibration Date: 022510

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1268566, 1268568
Standard-Samp Reagent Lot# :1274562, 1261217

Reviewed By: [illegible]
Date: 02/26/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100225-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02250001.wiff	XIBLK01	LER	2/25/2010 8:29			1		USE	B
EXS02250002.wiff	XIBLK01	LER	2/25/2010 8:45			1		USE	B
EXS02250003.wiff	WXXICAL-19	LER	2/25/2010 9:01			1		USE	I
EXS02250004.wiff	WXXICAL-20	LER	2/25/2010 9:16			1		USE	I
EXS02250005.wiff	WXXICAL-21	LER	2/25/2010 9:32			1		USE	I
EXS02250006.wiff	WXXICAL-22	LER	2/25/2010 9:48			1		USE	I
EXS02250007.wiff	WXXICAL-23	LER	2/25/2010 10:04			1		USE	I
EXS02250008.wiff	WXXICAL-24	LER	2/25/2010 10:19			1		USE	I
EXS02250009.wiff	WXXICAL-25	LER	2/25/2010 10:35			1		USE	I
EXS02250010.wiff	XIBLK02	LER	2/25/2010 10:51			1		USE	B
EXS02250011.wiff	WXXICV	LER	2/25/2010 11:06			1		USE	C
EXS02250012.wiff	XIBLK03	LER	2/25/2010 11:22			1		USE	B
EXS02250013.wiff	WXXCRI	LER	2/25/2010 11:38			1		USE	C
EXS02250014.wiff	246588008	LER	2/25/2010 11:53	951353	10-1688	2	LANL	USE	S
EXS02250015.wiff	246588009	LER	2/25/2010 12:09	951353	10-1688	2	LANL	USE	S
EXS02250016.wiff	246588010	LER	2/25/2010 12:25	951353	10-1688	2	LANL	USE	S
EXS02250017.wiff	246588011	LER	2/25/2010 12:41	951353	10-1688	2	LANL	USE	S
EXS02250018.wiff	246588012	LER	2/25/2010 12:56	951353	10-1688	2	LANL	USE	S
EXS02250019.wiff	246605001	LER	2/25/2010 13:12	951353	10-1698-1	2	LANL	USE	S
EXS02250020.wiff	246605002	LER	2/25/2010 13:28	951353	10-1698-1	2	LANL	USE	S
EXS02250021.wiff	246605003	LER	2/25/2010 13:44	951353	10-1698-1	2	LANL	USE	S
EXS02250022.wiff	246605004	LER	2/25/2010 13:59	951353	10-1698-1	2	LANL	USE	S
EXS02250023.wiff	246605005	LER	2/25/2010 14:15	951353	10-1698-1	2	LANL	USE	S
EXS02250024.wiff	WXXCCV	LER	2/25/2010 14:31			1		USE	C
EXS02250025.wiff	XIBLK04	LER	2/25/2010 14:47			1		USE	B
EXS02250026.wiff	WXXCRI	LER	2/25/2010 15:02			1		USE	C
EXS02250027.wiff	246605006	LER	2/25/2010 15:18	951353	10-1698-1	2	LANL	USE	S
EXS02250028.wiff	XIBLK05	LER	2/25/2010 15:34			1		USE	B
EXS02250029.wiff	1202038795	LER	2/25/2010 15:50	951357	VARIOUS	2	LANL	USE	S
EXS02250030.wiff	1202038796	LER	2/25/2010 16:06	951357	VARIOUS	2	LANL	USE	S

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EXS02250031.wiff	246610001	LER	2/25/2010 16:21	951357	10-1701	2	LANL	USE	S
EXS02250032.wiff	1202038797	LER	2/25/2010 16:37	951357	10-1701	2	LANL	USE	S
EXS02250033.wiff	1202038798	LER	2/25/2010 16:53	951357	10-1701	2	LANL	USE	S
EXS02250034.wiff	246610002	LER	2/25/2010 17:08	951357	10-1701	2	LANL	USE	S
EXS02250035.wiff	246610003	LER	2/25/2010 17:24	951357	10-1701	2	LANL	USE	S
EXS02250036.wiff	246611001	LER	2/25/2010 17:40	951357	10-1702	2	LANL	USE	S
EXS02250037.wiff	WXXCCV	LER	2/25/2010 17:55			1		USE	C
EXS02250038.wiff	XIBLK06	LER	2/25/2010 18:11			1		USE	B
EXS02250039.wiff	WXXCRI	LER	2/25/2010 18:27			1		USE	C
EXS02250040.wiff	246611002	LER	2/25/2010 18:43	951357	10-1702	2	LANL	USE	S
EXS02250041.wiff	246611003	LER	2/25/2010 18:59	951357	10-1702	2	LANL	USE	S
EXS02250042.wiff	UXX100210-02.2	LER	2/25/2010 19:14	SCREEN	SOLID	2	O2SI	USE	S
EXS02250043.wiff	WXXCCV	LER	2/25/2010 19:30			1		USE	C
EXS02250044.wiff	XIBLK07	LER	2/25/2010 19:46			1		USE	B
EXS02250045.wiff	WXXCRI	LER	2/25/2010 20:02			1		USE	C
EXS02250046.wiff	1202041901	LER	2/25/2010 20:17	952679	VARIOUS	2	LANL	USE	S
EXS02250047.wiff	1202041902	LER	2/25/2010 20:33	952679	VARIOUS	2	LANL	USE	S
EXS02250048.wiff	246721001	LER	2/25/2010 20:49	952679	10-1709	2	LANL	USE	S
EXS02250049.wiff	1202041903	LER	2/25/2010 21:04	952679	10-1709	2	LANL	USE	S
EXS02250050.wiff	1202041904	LER	2/25/2010 21:20	952679	10-1709	2	LANL	USE	S
EXS02250051.wiff	246721002	LER	2/25/2010 21:36	952679	10-1709	2	LANL	USE	S
EXS02250052.wiff	246837001	LER	2/25/2010 21:51	952679	10-1747	2	LANL	USE	S
EXS02250053.wiff	246837002	LER	2/25/2010 22:07	952679	10-1747	2	LANL	USE	S
EXS02250054.wiff	246837003	LER	2/25/2010 22:23	952679	10-1747	2	LANL	USE	S
EXS02250055.wiff	246837004	LER	2/25/2010 22:39	952679	10-1747	2	LANL	USE	S
EXS02250056.wiff	WXXCCV	LER	2/25/2010 22:54			1		USE	C
EXS02250057.wiff	XIBLK08	LER	2/25/2010 23:10			1		USE	B
EXS02250058.wiff	WXXCRI	LER	2/25/2010 23:26			1		USE	C
EXS02250059.wiff	246837005	LER	2/25/2010 23:41	952679	10-1747	2	LANL	DUSE-RA	S
EXS02250060.wiff	246837006	LER	2/25/2010 23:57	952679	10-1747	2	LANL	DUSE-RA	S
EXS02250061.wiff	246841001	LER	2/26/2010 0:13	952679	10-1748	2	LANL	DUSE-RA	S
EXS02250062.wiff	246841002	LER	2/26/2010 0:28	952679	10-1748	2	LANL	DUSE-RA	S
EXS02250063.wiff	246841003	LER	2/26/2010 0:44	952679	10-1748	2	LANL	DUSE-RA	S
EXS02250064.wiff	246843002	LER	2/26/2010 1:00	952679	10-1749	2	LANL	DUSE-RA	S
EXS02250065.wiff	246843003	LER	2/26/2010 1:16	952679	10-1749	2	LANL	DUSE-RA	S
EXS02250066.wiff	246843004	LER	2/26/2010 1:31	952679	10-1749	2	LANL	DUSE-RA	S
EXS02250067.wiff	246846001	LER	2/26/2010 1:47	952679	10-1750	2	LANL	DUSE-RA	S

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EXS02250068.wiff	246846002	LER	2/26/2010 2:03	952679	10-1750	2	LANL	DUSE-RA	S
EXS02250069.wiff	WXXCCV	LER	2/26/2010 2:18			1		DUSE-RA	C
EXS02250070.wiff	XIBLK09	LER	2/26/2010 2:34			1		DUSE-RA	B
EXS02250071.wiff	WXXCRI	LER	2/26/2010 2:50			1		DUSE-RA	C
EXS02250072.wiff	246847001	LER	2/26/2010 3:05	952679	10-1751	2	LANL	DUSE-RA	S
EXS02250073.wiff	246847002	LER	2/26/2010 3:21	952679	10-1751	2	LANL	DUSE-RA	S
EXS02250074.wiff	XIBLK10	LER	2/26/2010 3:37			1		DUSE-RA	B
EXS02250075.wiff	1202032874	LER	2/26/2010 3:53	948888	10-1543	2	LANL	DUSE-RA	S
EXS02250076.wiff	1202032875	LER	2/26/2010 4:08	948888	10-1543	2	LANL	DUSE-RA	S
EXS02250077.wiff	246066001	LER	2/26/2010 4:24	948888	10-1543	2	LANL	DUSE-RA	S
EXS02250078.wiff	1202032876	LER	2/26/2010 4:40	948888	10-1543	2	LANL	DUSE-RA	S
EXS02250079.wiff	1202032877	LER	2/26/2010 4:56	948888	10-1543	2	LANL	DUSE-RA	S
EXS02250080.wiff	246066002	LER	2/26/2010 5:11	948888	10-1543	2	LANL	DUSE-RA	S
EXS02250081.wiff	246066003	LER	2/26/2010 5:27	948888	10-1543	2	LANL	DUSE-RA	S
EXS02250082.wiff	WXXCCV	LER	2/26/2010 5:43			1		DUSE-RA	C
EXS02250083.wiff	XIBLK11	LER	2/26/2010 5:58			1		DUSE-RA	B
EXS02250084.wiff	WXXCRI	LER	2/26/2010 6:14			1		DUSE-RA	C

GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 02/26/10
Extr. Injection Volume: 10uL
Sequence Number: 022610exs
Initial Calibration Date: 022610

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1268566, 1268568
Standard-Samp Reagent Lot# :1274562, 1261217

Reviewed By: hmc
Date: 03/01/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100226-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02260001.wiff	XIBLK01	LER	2/26/2010 14:53			1		USE	B
EXS02260002.wiff	XIBLK01	LER	2/26/2010 15:09			1		USE	B
EXS02260003.wiff	WXXICAL-19	LER	2/26/2010 15:25			1		USE	I
EXS02260004.wiff	WXXICAL-20	LER	2/26/2010 15:41			1		USE	I
EXS02260005.wiff	WXXICAL-21	LER	2/26/2010 15:56			1		USE	I
EXS02260006.wiff	WXXICAL-22	LER	2/26/2010 16:12			1		USE	I
EXS02260007.wiff	WXXICAL-23	LER	2/26/2010 16:28			1		USE	I
EXS02260008.wiff	WXXICAL-24	LER	2/26/2010 16:43			1		USE	I
EXS02260009.wiff	WXXICAL-25	LER	2/26/2010 16:59			1		USE	I
EXS02260010.wiff	XIBLK02	LER	2/26/2010 17:15			1		USE	B
EXS02260011.wiff	WXXICV	LER	2/26/2010 17:31			1		USE	C
EXS02260012.wiff	XIBLK03	LER	2/26/2010 17:46			1		USE	B
EXS02260013.wiff	WXXCRI	LER	2/26/2010 18:02			1		USE	C
EXS02260014.wiff	246837005	LER	2/26/2010 18:18	952679	10-1747	2	LANL	USE	S
EXS02260015.wiff	246837006	LER	2/26/2010 18:33	952679	10-1747	2	LANL	USE	S
EXS02260016.wiff	246841001	LER	2/26/2010 18:49	952679	10-1748	2	LANL	USE	S
EXS02260017.wiff	246841002	LER	2/26/2010 19:05	952679	10-1748	2	LANL	USE	S
EXS02260018.wiff	246841003	LER	2/26/2010 19:21	952679	10-1748	2	LANL	USE	S
EXS02260019.wiff	246843002	LER	2/26/2010 19:36	952679	10-1749	2	LANL	USE	S
EXS02260020.wiff	246843003	LER	2/26/2010 19:52	952679	10-1749	2	LANL	USE	S
EXS02260021.wiff	246843004	LER	2/26/2010 20:08	952679	10-1749	2	LANL	USE	S
EXS02260022.wiff	246846001	LER	2/26/2010 20:23	952679	10-1750	2	LANL	USE	S
EXS02260023.wiff	246846002	LER	2/26/2010 20:39	952679	10-1750	2	LANL	USE	S
EXS02260024.wiff	WXXCCV	LER	2/26/2010 20:55			1		USE	C
EXS02260025.wiff	XIBLK04	LER	2/26/2010 21:10			1		USE	B
EXS02260026.wiff	WXXCRI	LER	2/26/2010 21:26			1		USE	C
EXS02260027.wiff	246847001	LER	2/26/2010 21:42	952679	10-1751	2	LANL	USE	S
EXS02260028.wiff	246847002	LER	2/26/2010 21:58	952679	10-1751	2	LANL	USE	S
EXS02260029.wiff	XIBLK05	LER	2/26/2010 22:13			1		USE	B
EXS02260030.wiff	1202032874	LER	2/26/2010 22:29	948888	10-1543	2	LANL	USE	S

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EXS02260031.wiff	1202032875	LER	2/26/2010 22:45	948888	10-1543	2	LANL	USE	S
EXS02260032.wiff	246066001	LER	2/26/2010 23:01	948888	10-1543	2	LANL	USE	S
EXS02260033.wiff	1202032876	LER	2/26/2010 23:16	948888	10-1543	2	LANL	USE	S
EXS02260034.wiff	1202032877	LER	2/26/2010 23:32	948888	10-1543	2	LANL	USE	S
EXS02260035.wiff	246066002	LER	2/26/2010 23:48	948888	10-1543	2	LANL	USE	S
EXS02260036.wiff	246066003	LER	2/27/2010 0:03	948888	10-1543	2	LANL	USE	S
EXS02260037.wiff	WXXCCV	LER	2/27/2010 0:19			1		USE	C
EXS02260038.wiff	XIBLK06	LER	2/27/2010 0:35			1		USE	B
EXS02260039.wiff	WXXCRI	LER	2/27/2010 0:51			1		USE	C
EXS02260040.wiff	246066004	LER	2/27/2010 1:06	948888	10-1543	2	LANL	USE	S
EXS02260041.wiff	246066005	LER	2/27/2010 1:22	948888	10-1543	2	LANL	USE	S
EXS02260042.wiff	246066006	LER	2/27/2010 1:38	948888	10-1543	2	LANL	USE	S
EXS02260043.wiff	246066007	LER	2/27/2010 1:53	948888	10-1543	2	LANL	USE	S
EXS02260044.wiff	246066008	LER	2/27/2010 2:09	948888	10-1543	2	LANL	USE	S
EXS02260045.wiff	246066009	LER	2/27/2010 2:25	948888	10-1543	2	LANL	USE	S
EXS02260046.wiff	246066010	LER	2/27/2010 2:40	948888	10-1543	2	LANL	USE	S
EXS02260047.wiff	246066011	LER	2/27/2010 2:56	948888	10-1543	2	LANL	USE	S
EXS02260048.wiff	246066012	LER	2/27/2010 3:12	948888	10-1543	2	LANL	USE	S
EXS02260049.wiff	246066013	LER	2/27/2010 3:28	948888	10-1543	2	LANL	USE	S
EXS02260050.wiff	WXXCCV	LER	2/27/2010 3:43			1		USE	C
EXS02260051.wiff	XIBLK07	LER	2/27/2010 3:59			1		USE	B
EXS02260052.wiff	WXXCRI	LER	2/27/2010 4:15			1		USE	C
EXS02260053.wiff	246066014	LER	2/27/2010 4:30	948888	10-1543	2	LANL	USE	S
EXS02260054.wiff	246066015	LER	2/27/2010 4:46	948888	10-1543	2	LANL	USE	S
EXS02260055.wiff	246066016	LER	2/27/2010 5:02	948888	10-1543	2	LANL	USE	S
EXS02260056.wiff	246066017	LER	2/27/2010 5:18	948888	10-1543	2	LANL	USE	S
EXS02260057.wiff	246066018	LER	2/27/2010 5:33	948888	10-1543	2	LANL	USE	S
EXS02260058.wiff	246066019	LER	2/27/2010 5:49	948888	10-1543	2	LANL	USE	S
EXS02260059.wiff	246066020	LER	2/27/2010 6:05	948888	10-1543	2	LANL	USE	S
EXS02260060.wiff	WXXCCV	LER	2/27/2010 6:20			1		USE	C
EXS02260061.wiff	XIBLK08	LER	2/27/2010 6:36			1		USE	B
EXS02260062.wiff	WXXCRI	LER	2/27/2010 6:52			1		USE	C
EXS02260063.wiff	1202045764	LER	2/27/2010 7:07	954338	VARIOUS	2	LANL	USE	S
EXS02260064.wiff	1202045765	LER	2/27/2010 7:23	954338	VARIOUS	2	LANL	USE	S
EXS02260065.wiff	247083001	LER	2/27/2010 7:39	954338	10-1827	2	LANL	USE	S
EXS02260066.wiff	1202045766	LER	2/27/2010 7:55	954338	10-1827	2	LANL	USE	S
EXS02260067.wiff	1202045767	LER	2/27/2010 8:10	954338	10-1827	2	LANL	USE	S

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EXS02260068.wiff	247083002	LER	2/27/2010 8:26	954338	10-1827	2	LANL	USE	S
EXS02260069.wiff	247083003	LER	2/27/2010 8:42	954338	10-1827	2	LANL	USE	S
EXS02260070.wiff	247083004	LER	2/27/2010 8:57	954338	10-1827	2	LANL	USE	S
EXS02260071.wiff	247084001	LER	2/27/2010 9:13	954338	10-1828	2	LANL	USE	S
EXS02260072.wiff	247084002	LER	2/27/2010 9:29	954338	10-1828	2	LANL	USE	S
EXS02260073.wiff	WXXCCV	LER	2/27/2010 9:44			1		USE	C
EXS02260074.wiff	XIBLK09	LER	2/27/2010 10:00			1		USE	B
EXS02260075.wiff	WXXCRI	LER	2/27/2010 10:16			1		USE	C
EXS02260076.wiff	247086001	LER	2/27/2010 10:32	954338	10-1829	2	LANL	USE	S
EXS02260077.wiff	247088001	LER	2/27/2010 10:47	954338	10-1830	2	LANL	USE	S
EXS02260078.wiff	247088002	LER	2/27/2010 11:03	954338	10-1830	2	LANL	USE	S
EXS02260079.wiff	247088003	LER	2/27/2010 11:19	954338	10-1830	2	LANL	USE	S
EXS02260080.wiff	247091001	LER	2/27/2010 11:34	954338	10-1831	2	LANL	USE	S
EXS02260081.wiff	247091002	LER	2/27/2010 11:50	954338	10-1831	2	LANL	USE	S
EXS02260082.wiff	247094001	LER	2/27/2010 12:06	954338	10-1832	2	LANL	USE	S
EXS02260083.wiff	247094002	LER	2/27/2010 12:21	954338	10-1832	2	LANL	USE	S
EXS02260084.wiff	247121002	LER	2/27/2010 12:37	954338	10-1846	2	LANL	USE	S
EXS02260085.wiff	247123001	LER	2/27/2010 12:53	954338	10-1848	2	LANL	USE	S
EXS02260086.wiff	WXXCCV	LER	2/27/2010 13:09			1		USE	C
EXS02260087.wiff	XIBLK10	LER	2/27/2010 13:24			1		USE	B
EXS02260088.wiff	WXXCRI	LER	2/27/2010 13:40			1		USE	C
EXS02260089.wiff	247123002	LER	2/27/2010 13:56	954338	10-1848	2	LANL	USE	S
EXS02260090.wiff	247123003	LER	2/27/2010 14:11	954338	10-1848	2	LANL	USE	S
EXS02260091.wiff	247123004	LER	2/27/2010 14:27	954338	10-1848	2	LANL	USE	S
EXS02260092.wiff	XIBLK11	LER	2/27/2010 14:43			1		USE	B
EXS02260093.wiff	1202032878	LER	2/27/2010 14:59	948890	10-1544	2	LANL	USE	S
EXS02260094.wiff	1202032879	LER	2/27/2010 15:14	948890	10-1544	2	LANL	USE	S
EXS02260095.wiff	246070001	LER	2/27/2010 15:30	948890	10-1544	2	LANL	USE	S
EXS02260096.wiff	1202032880	LER	2/27/2010 15:46	948890	10-1544	2	LANL	USE	S
EXS02260097.wiff	1202032881	LER	2/27/2010 16:01	948890	10-1544	2	LANL	USE	S
EXS02260098.wiff	246070002	LER	2/27/2010 16:17	948890	10-1544	2	LANL	USE	S
EXS02260099.wiff	WXXCCV	LER	2/27/2010 16:33			1		USE	C
EXS02260100.wiff	XIBLK12	LER	2/27/2010 16:48			1		USE	B
EXS02260101.wiff	WXXCRI	LER	2/27/2010 17:04			1		USE	C
EXS02260102.wiff	246070003	LER	2/27/2010 17:20	948890	10-1544	2	LANL	USE	S
EXS02260103.wiff	246070004	LER	2/27/2010 17:35	948890	10-1544	2	LANL	USE	S
EXS02260104.wiff	246070005	LER	2/27/2010 17:51	948890	10-1544	2	LANL	USE	S

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EXS02260105.wiff	246070006	LER	2/27/2010 18:07	948890	10-1544	2	LANL	USE	S
EXS02260106.wiff	246070007	LER	2/27/2010 18:23	948890	10-1544	2	LANL	USE	S
EXS02260107.wiff	246070008	LER	2/27/2010 18:38	948890	10-1544	2	LANL	USE	S
EXS02260108.wiff	246070009	LER	2/27/2010 18:54	948890	10-1544	2	LANL	USE	S
EXS02260109.wiff	246070010	LER	2/27/2010 19:10	948890	10-1544	2	LANL	USE	S
EXS02260110.wiff	246070011	LER	2/27/2010 19:25	948890	10-1544	2	LANL	USE	S
EXS02260111.wiff	246070012	LER	2/27/2010 19:41	948890	10-1544	2	LANL	USE	S
EXS02260112.wiff	WXXCCV	LER	2/27/2010 19:57			1		USE	C
EXS02260113.wiff	XIBLK13	LER	2/27/2010 20:12			1		USE	B
EXS02260114.wiff	WXXCRI	LER	2/27/2010 20:28			1		USE	C
EXS02260115.wiff	246070013	LER	2/27/2010 20:44	948890	10-1544	2	LANL	USE	S
EXS02260116.wiff	246070014	LER	2/27/2010 21:00	948890	10-1544	2	LANL	USE	S
EXS02260117.wiff	246070015	LER	2/27/2010 21:15	948890	10-1544	2	LANL	USE	S
EXS02260118.wiff	246070016	LER	2/27/2010 21:31	948890	10-1544	2	LANL	USE	S
EXS02260119.wiff	246070017	LER	2/27/2010 21:47	948890	10-1544	2	LANL	USE	S
EXS02260120.wiff	246070018	LER	2/27/2010 22:02	948890	10-1544	2	LANL	USE	S
EXS02260121.wiff	246070019	LER	2/27/2010 22:18	948890	10-1544	2	LANL	USE	S
EXS02260122.wiff	246070020	LER	2/27/2010 22:34	948890	10-1544	2	LANL	USE	S
EXS02260123.wiff	WXXCCV	LER	2/27/2010 22:49			1		USE	C
EXS02260124.wiff	XIBLK14	LER	2/27/2010 23:05			1		USE	B
EXS02260125.wiff	WXXCRI	LER	2/27/2010 23:21			1		USE	C
EXS02260126.wiff	1202032884	LER	2/27/2010 23:36	948893	10-1545	2	LANL	USE	S
EXS02260127.wiff	1202032885	LER	2/27/2010 23:52	948893	10-1545	2	LANL	USE	S
EXS02260128.wiff	246055001	LER	2/28/2010 0:08	948893	10-1545	2	LANL	USE	S
EXS02260129.wiff	1202032886	LER	2/28/2010 0:24	948893	10-1545	2	LANL	USE	S
EXS02260130.wiff	1202032887	LER	2/28/2010 0:39	948893	10-1545	2	LANL	USE	S
EXS02260131.wiff	246055002	LER	2/28/2010 0:55	948893	10-1545	2	LANL	USE	S
EXS02260132.wiff	246055003	LER	2/28/2010 1:11	948893	10-1545	2	LANL	USE	S
EXS02260133.wiff	246055004	LER	2/28/2010 1:26	948893	10-1545	2	LANL	USE	S
EXS02260134.wiff	246055005	LER	2/28/2010 1:42	948893	10-1545	2	LANL	USE	S
EXS02260135.wiff	246055006	LER	2/28/2010 1:58	948893	10-1545	2	LANL	USE	S
EXS02260136.wiff	WXXCCV	LER	2/28/2010 2:14			1		USE	C
EXS02260137.wiff	XIBLK15	LER	2/28/2010 2:29			1		USE	B
EXS02260138.wiff	WXXCRI	LER	2/28/2010 2:45			1		USE	C
EXS02260139.wiff	246055007	LER	2/28/2010 3:01	948893	10-1545	2	LANL	USE	S
EXS02260140.wiff	246055008	LER	2/28/2010 3:17	948893	10-1545	2	LANL	USE	S
EXS02260141.wiff	246055009	LER	2/28/2010 3:32	948893	10-1545	2	LANL	USE	S

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EXS02260142.wiff	UXX100122-01.3	LER	2/28/2010 3:48	SCREEN	SOLID	2	O2SI	USE	S
EXS02260143.wiff	XIBLK16	LER	2/28/2010 4:04			1		USE	B
EXS02260144.wiff	1202040473	LER	2/28/2010 4:20	952049	VARIOUS	2	LANL	USE	S
EXS02260145.wiff	1202040474	LER	2/28/2010 4:36	952049	VARIOUS	2	LANL	USE	S
EXS02260146.wiff	246713001	LER	2/28/2010 4:51	952049	10-1728	2	LANL	USE	S
EXS02260147.wiff	1202040475	LER	2/28/2010 5:07	952049	10-1728	2	LANL	USE	S
EXS02260148.wiff	1202040476	LER	2/28/2010 5:23	952049	10-1728	2	LANL	USE	S
EXS02260149.wiff	WXXCCV	LER	2/28/2010 5:38			1		USE	C
EXS02260150.wiff	XIBLK17	LER	2/28/2010 5:54			1		USE	B
EXS02260151.wiff	WXXCRI	LER	2/28/2010 6:10			1		USE	C
EXS02260152.wiff	246713002	LER	2/28/2010 6:26	952049	10-1728	2	LANL	USE	S
EXS02260153.wiff	246713003	LER	2/28/2010 6:41	952049	10-1728	2	LANL	USE	S
EXS02260154.wiff	246713004	LER	2/28/2010 6:57	952049	10-1728	2	LANL	USE	S
EXS02260155.wiff	246713005	LER	2/28/2010 7:13	952049	10-1728	2	LANL	USE	S
EXS02260156.wiff	246713006	LER	2/28/2010 7:29	952049	10-1728	2	LANL	USE	S
EXS02260157.wiff	246713007	LER	2/28/2010 7:44	952049	10-1728	2	LANL	USE	S
EXS02260158.wiff	246713008	LER	2/28/2010 8:00	952049	10-1728	2	LANL	USE	S
EXS02260159.wiff	246734001	LER	2/28/2010 8:16	952049	10-1731-1	2	LANL	USE	S
EXS02260160.wiff	246736001	LER	2/28/2010 8:31	952049	10-1732	2	LANL	USE	S
EXS02260161.wiff	246736002	LER	2/28/2010 8:47	952049	10-1732	2	LANL	USE	S
EXS02260162.wiff	WXXCCV	LER	2/28/2010 9:03			1		USE	C
EXS02260163.wiff	XIBLK18	LER	2/28/2010 9:19			1		USE	B
EXS02260164.wiff	WXXCRI	LER	2/28/2010 9:34			1		USE	C
EXS02260165.wiff	246739002	LER	2/28/2010 9:50	952049	10-1733	2	LANL	USE	S
EXS02260166.wiff	246739003	LER	2/28/2010 10:06	952049	10-1733	2	LANL	USE	S
EXS02260167.wiff	246739004	LER	2/28/2010 10:22	952049	10-1733	2	LANL	USE	S
EXS02260168.wiff	246739005	LER	2/28/2010 10:37	952049	10-1733	2	LANL	USE	S
EXS02260169.wiff	246739006	LER	2/28/2010 10:53	952049	10-1733	2	LANL	USE	S
EXS02260170.wiff	246739007	LER	2/28/2010 11:09	952049	10-1733	2	LANL	USE	S
EXS02260171.wiff	246739008	LER	2/28/2010 11:25	952049	10-1733	2	LANL	USE	S
EXS02260172.wiff	246739009	LER	2/28/2010 11:40	952049	10-1733	2	LANL	USE	S
EXS02260173.wiff	246739010	LER	2/28/2010 11:56	952049	10-1733	2	LANL	USE	S
EXS02260174.wiff	WXXCCV	LER	2/28/2010 12:12			1		USE	C
EXS02260175.wiff	XIBLK19	LER	2/28/2010 12:28			1		USE	B
EXS02260176.wiff	WXXCRI	LER	2/28/2010 12:43			1		USE	C
EXS02260177.wiff	1202040477	LER	2/28/2010 12:59	952051	VARIOUS	2	LANL	USE	S
EXS02260178.wiff	1202040478	LER	2/28/2010 13:15	952051	VARIOUS	2	LANL	USE	S

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EXS02260179.wiff	246732002	LER	2/28/2010 13:30	952051	10-1742	2	LANL	USE	S
EXS02260180.wiff	246732003	LER	2/28/2010 13:46	952051	10-1742	2	LANL	USE	S
EXS02260181.wiff	246732004	LER	2/28/2010 14:02	952051	10-1742	2	LANL	USE	S
EXS02260182.wiff	246732005	LER	2/28/2010 14:18	952051	10-1742	2	LANL	USE	S
EXS02260183.wiff	246732006	LER	2/28/2010 14:33	952051	10-1742	2	LANL	USE	S
EXS02260184.wiff	246744002	LER	2/28/2010 14:49	952051	10-1736	2	LANL	USE	S
EXS02260185.wiff	1202040479	LER	2/28/2010 15:05	952051	10-1736	2	LANL	USE	S
EXS02260186.wiff	1202040480	LER	2/28/2010 15:20	952051	10-1736	2	LANL	USE	S
EXS02260187.wiff	WXXCCV	LER	2/28/2010 15:36			1		USE	C
EXS02260188.wiff	XIBLK20	LER	2/28/2010 15:52			1		USE	B
EXS02260189.wiff	WXXCRI	LER	2/28/2010 16:08			1		USE	C
EXS02260190.wiff	246744003	LER	2/28/2010 16:23	952051	10-1736	2	LANL	DUSE-RA	S
EXS02260191.wiff	246744004	LER	2/28/2010 16:39	952051	10-1736	2	LANL	DUSE-RA	S
EXS02260192.wiff	246752002	LER	2/28/2010 16:55	952051	10-1745	2	LANL	DUSE-RA	S
EXS02260193.wiff	246752003	LER	2/28/2010 17:11	952051	10-1745	2	LANL	DUSE-RA	S
EXS02260194.wiff	246760001	LER	2/28/2010 17:27	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260195.wiff	246760002	LER	2/28/2010 17:42	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260196.wiff	246760003	LER	2/28/2010 17:58	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260197.wiff	246760004	LER	2/28/2010 18:14	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260198.wiff	246760005	LER	2/28/2010 18:29	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260199.wiff	246760006	LER	2/28/2010 18:45	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260200.wiff	WXXCCV	LER	2/28/2010 19:01			1		DUSE-RA	C
EXS02260201.wiff	XIBLK21	LER	2/28/2010 19:17			1		DUSE-RA	B
EXS02260202.wiff	WXXCRI	LER	2/28/2010 19:32			1		DUSE-RA	C
EXS02260203.wiff	246760007	LER	2/28/2010 19:48	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260204.wiff	246760008	LER	2/28/2010 20:04	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260205.wiff	246760009	LER	2/28/2010 20:20	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260206.wiff	246760010	LER	2/28/2010 20:35	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260207.wiff	XIBLK22	LER	2/28/2010 20:51			1		DUSE-RA	B
EXS02260208.wiff	1202040457	LER	2/28/2010 21:07	952043	VARIOUS	2	LANL	DUSE-RA	S
EXS02260209.wiff	1202040458	LER	2/28/2010 21:23	952043	VARIOUS	2	LANL	DUSE-RA	S
EXS02260210.wiff	246677001	LER	2/28/2010 21:38	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260211.wiff	1202040459	LER	2/28/2010 21:54	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260212.wiff	1202040460	LER	2/28/2010 22:10	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260213.wiff	WXXCCV	LER	2/28/2010 22:26			1		USE	C
EXS02260214.wiff	XIBLK23	LER	2/28/2010 22:41			1		USE	B
EXS02260215.wiff	WXXCRI	LER	2/28/2010 22:57			1		USE	C

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EXS02260216.wiff	246677002	LER	2/28/2010 23:13	952043	10-1703	2	LANL	USE	S
EXS02260217.wiff	246677003	LER	2/28/2010 23:29	952043	10-1703	2	LANL	USE	S
EXS02260218.wiff	246677004	LER	2/28/2010 23:44	952043	10-1703	2	LANL	USE	S
EXS02260219.wiff	246677005	LER	3/1/2010 0:00	952043	10-1703	2	LANL	USE	S
EXS02260220.wiff	246677006	LER	3/1/2010 0:16	952043	10-1703	2	LANL	USE	S
EXS02260221.wiff	246677007	LER	3/1/2010 0:31	952043	10-1703	2	LANL	USE	S
EXS02260222.wiff	246677008	LER	3/1/2010 0:47	952043	10-1703	2	LANL	USE	S
EXS02260223.wiff	246682002	LER	3/1/2010 1:03	952043	10-1706	2	LANL	USE	S
EXS02260224.wiff	WXXCCV	LER	3/1/2010 1:19			1		USE	C
EXS02260225.wiff	XIBLK24	LER	3/1/2010 1:34			1		USE	B
EXS02260226.wiff	WXXCRI	LER	3/1/2010 1:50			1		USE	C
EXS02260227.wiff	246682003	LER	3/1/2010 2:06	952043	10-1706	2	LANL	USE	S
EXS02260228.wiff	246682004	LER	3/1/2010 2:22	952043	10-1706	2	LANL	USE	S
EXS02260229.wiff	246682005	LER	3/1/2010 2:37	952043	10-1706	2	LANL	USE	S
EXS02260230.wiff	246682006	LER	3/1/2010 2:53	952043	10-1706	2	LANL	USE	S
EXS02260231.wiff	246682007	LER	3/1/2010 3:09	952043	10-1706	2	LANL	USE	S
EXS02260232.wiff	246682008	LER	3/1/2010 3:24	952043	10-1706	2	LANL	USE	S
EXS02260233.wiff	246682009	LER	3/1/2010 3:40	952043	10-1706	2	LANL	USE	S
EXS02260234.wiff	WXXCCV	LER	3/1/2010 3:56			1		USE	C
EXS02260235.wiff	XIBLK25	LER	3/1/2010 4:12			1		USE	B
EXS02260236.wiff	WXXCRI	LER	3/1/2010 4:27			1		USE	C
EXS02260237.wiff	UXX100210-02.3	LER	3/1/2010 4:43	SCREEN	SOLID	2	O2SI	USE	S
EXS02260238.wiff	XIBLK26	LER	3/1/2010 4:59			1		USE	B
EXS02260239.wiff	1202032038	LER	3/1/2010 5:15	948558	VARIOUS	2	LANL	USE	S
EXS02260240.wiff	1202032039	LER	3/1/2010 5:31	948558	VARIOUS	2	LANL	USE	S
EXS02260241.wiff	1202032154	LER	3/1/2010 5:46	948558	VARIOUS	2	LANL	USE	S
EXS02260242.wiff	245928018	LER	3/1/2010 6:02	948558	10-1495	2	LANL	USE	S
EXS02260243.wiff	245928025	LER	3/1/2010 6:18	948558	10-1495	2	LANL	USE	S
EXS02260244.wiff	245932006	LER	3/1/2010 6:33	948558	10-1501	2	LANL	USE	S
EXS02260245.wiff	1202032040	LER	3/1/2010 6:49	948558	10-1501	2	LANL	USE	S
EXS02260246.wiff	1202032041	LER	3/1/2010 7:05	948558	10-1501	2	LANL	USE	S
EXS02260247.wiff	WXXCCV	LER	3/1/2010 7:21			1		USE	C
EXS02260248.wiff	XIBLK27	LER	3/1/2010 7:36			1		USE	B
EXS02260249.wiff	WXXCRI	LER	3/1/2010 7:52			1		USE	C

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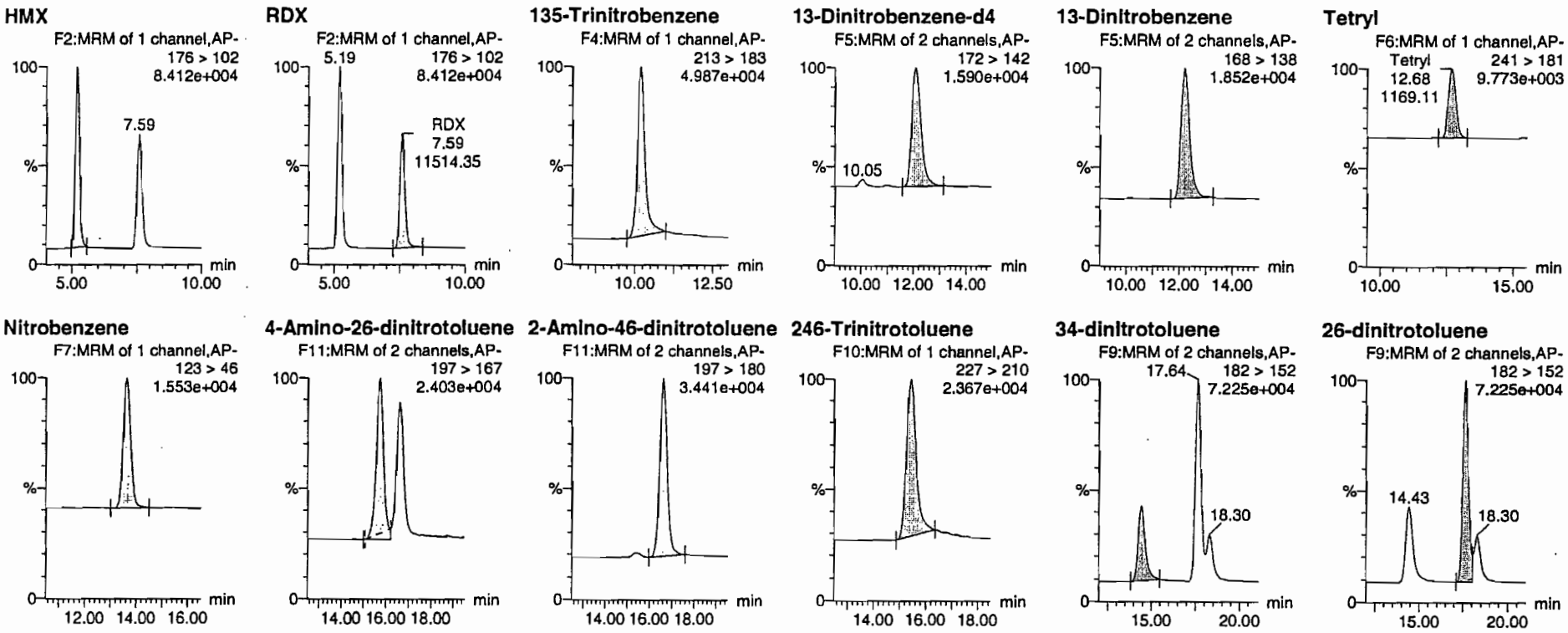
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304058a
Date: 05-Mar-2010
Time: 19:17:56
ID: 1202041903 | LANL | 952679 | SOLID | 246721001MS | 2 |
Vial: 2:5,D

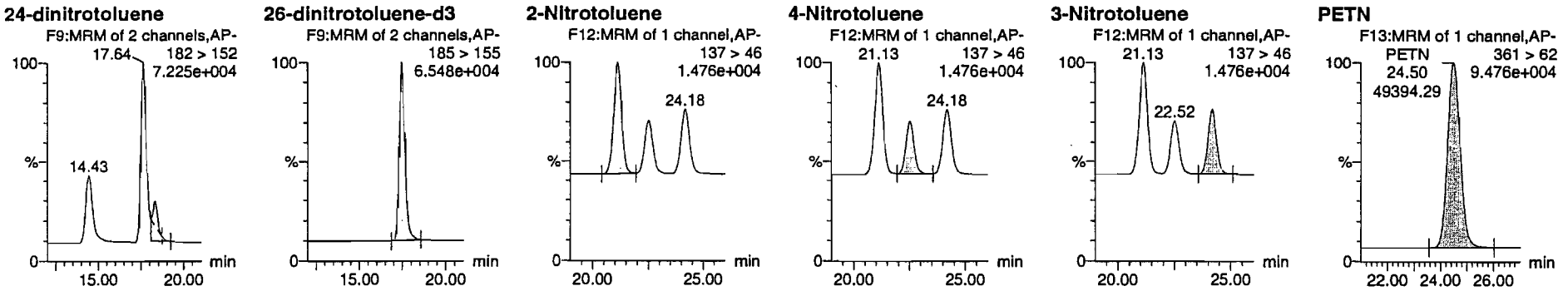
MAP 3/6/10



HMM 03/07/10

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202041903	HMX	176 > 102	5.19	15361.506	3949.587	15361.506	1944.698	bb			416.9317	83.4	-16.6	3896.4
1202041903	RDX	176 > 102	7.59	11514.354	3949.587	11514.354	1457.666	bb			509.4241	101.9	1.9	2462.9
1202041903	135-Trinitrobenzene	213 > 183	10.20	12312.200	3949.587	12312.200	1558.669	bb			400.2936	80.1	-19.9	3747.0
1202041903	13-Dinitrobenzene-d4	172 > 142	12.07	3949.587		3949.587	3949.587	bb			562.3327	112.5	12.5	477.3
1202041903	13-Dinitrobenzene	168 > 138	12.20	4593.351	3949.587	4593.351	581.498	bb			459.1511	91.8	-8.2	277.0
1202041903	Tetryl	241 > 181	12.68	1169.109	3949.587	1169.109	148.004	bb			145.4510	29.1	-70.9	93.2
1202041903	Nitrobenzene	123 > 46	13.63	3225.564	3949.587	3225.564	408.342	bb			494.5200	98.9	-1.1	349.3
1202041903	4-Amino-26-dinitrotoluene	197 > 167	15.74	7071.449	23777.635	7071.449	148.700	MM	06-Mar-10	12:10:00	539.1035	107.8	7.8	378.5
1202041903	2-Amino-46-dinitrotoluene	197 > 180	16.63	11033.800	23777.635	11033.800	232.021	bb			572.7452	114.5	14.5	651.1
1202041903	246-Trinitrotoluene	227 > 210	15.45	7386.438	23777.635	7386.438	155.323	bb			472.6715	94.5	-5.5	387.7
1202041903	34-dinitrotoluene	182 > 152	14.43	11614.735	23777.635	11614.735	244.237	bb			252.7108	101.1	1.1	343.2
1202041903	26-dinitrotoluene	182 > 152	17.64	24701.260	23777.635	24701.260	519.422	MM	06-Mar-10	12:13:56	465.6229	93.1	-6.9	926.6
1202041903	24-dinitrotoluene	182 > 152	18.30	6203.236	23777.635	6203.236	130.443	MM	06-Mar-10	12:16:56	473.2228	94.6	-5.4	205.1
1202041903	26-dinitrotoluene-d3	185 > 155	17.47	23777.635		23777.635	23777.635	bb			578.2335	115.6	15.6	1356.0
1202041903	2-Nitrotoluene	137 > 46	21.13	3579.009	23777.635	3579.009	75.260	bb			485.8655	97.2	-2.8	555.3
1202041903	4-Nitrotoluene	137 > 46	22.52	1782.137	23777.635	1782.137	37.475	bb			491.3221	98.3	-1.7	267.7
1202041903	3-Nitrotoluene	137 > 46	24.18	2189.276	23777.635	2189.276	46.036	bb			487.9092	97.6	-2.4	323.5
1202041903	PETN	361 > 62	24.50	49394.293	23777.635	49394.293	1038.671	bb			562.7824	112.6	12.6	8776.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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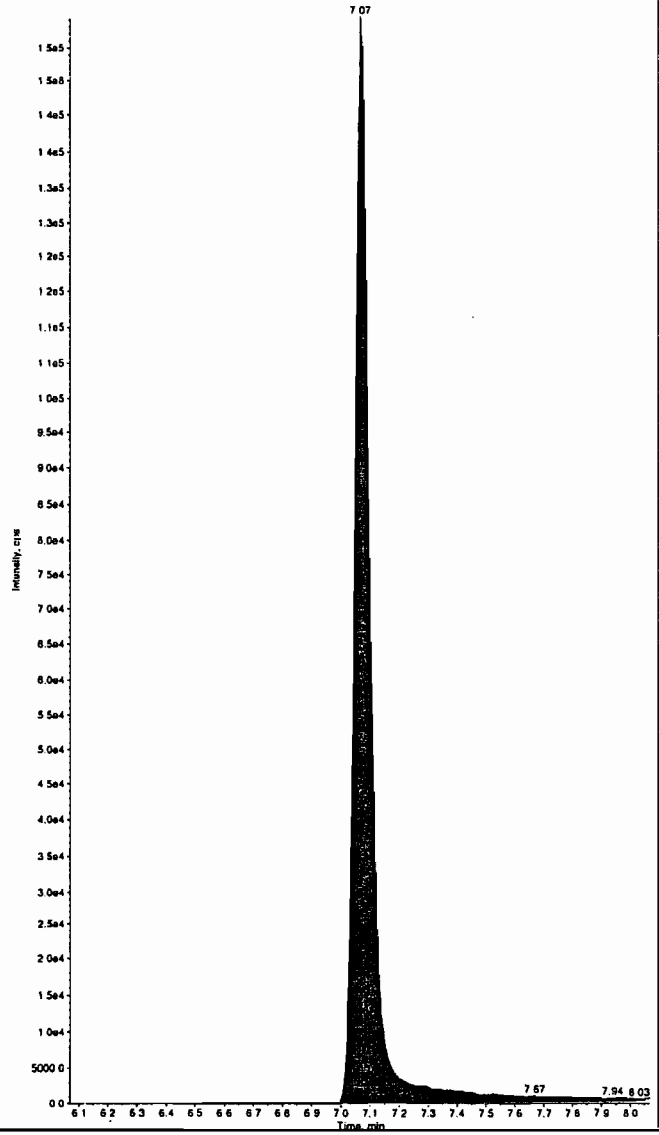
Scan 2/26/10

Sample Name: "1202041903" Sample ID: "952679|2|LER" File: "EXS02250049.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 682. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:04:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Inc. Type: Valley
Retention Time: 7.07 min
Area: 6.52e+005 counts
Height: 154313.232 cps
Start Time: 6.97 min
End Time: 8.05 min

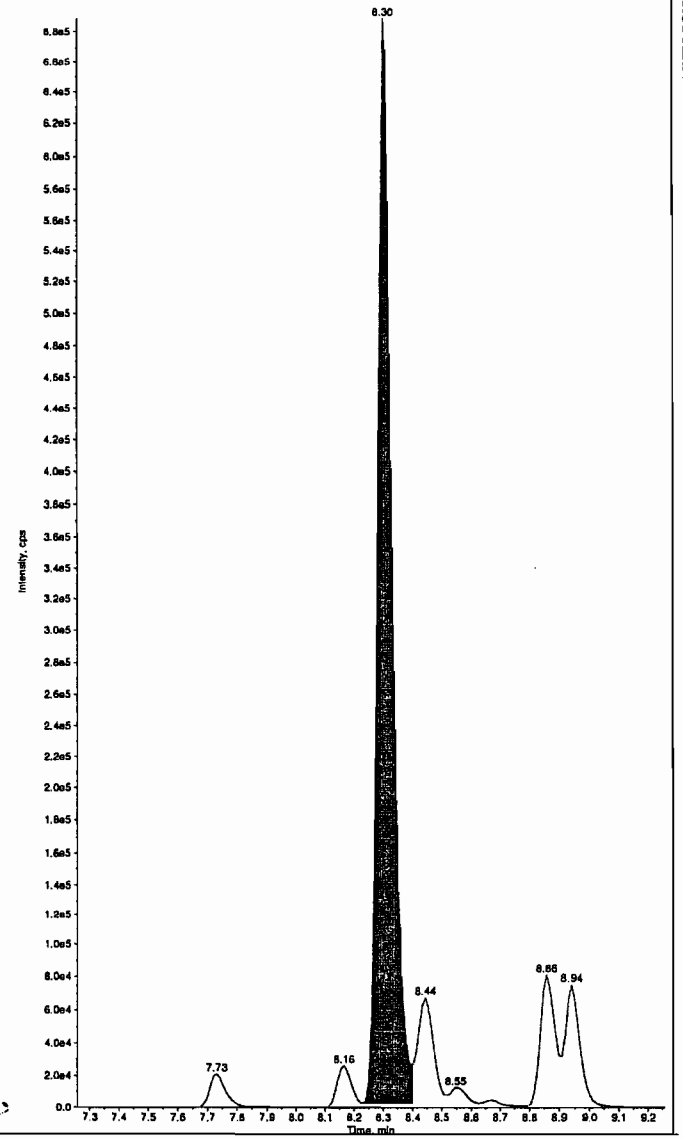


Sample Name: "1202041903" Sample ID: "952679|2|LER" File: "EXS02250049.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 544. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:04:51 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Inc. Type: Valley
Retention Time: 8.30 min
Area: 2.46e+006 counts
Height: 685973.755 cps
Start Time: 8.23 min
End Time: 8.40 min



Hmc 02/26/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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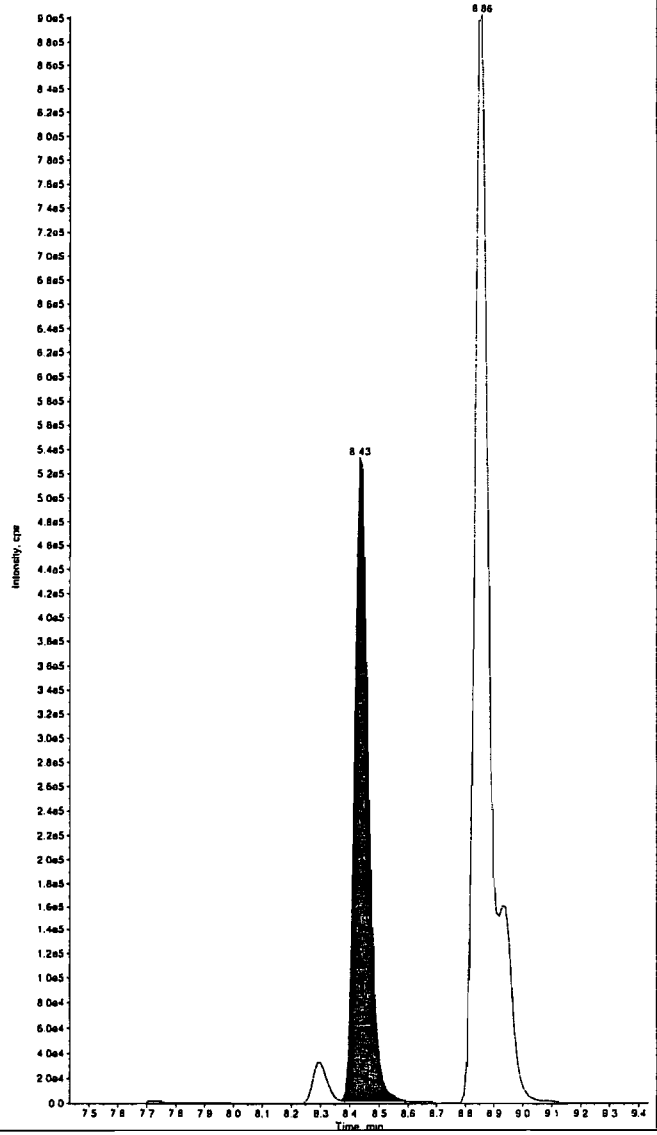
Sample Name: "1202041903" Sample ID: "952679|2|LER" File: "EXS02250049.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 250. ng/mL
Acq. Date: 3/25/2010
Acq. Time: 9:04:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.43 min
Area: 1.89e+006 counts
Height: 531299.622 cps
Start Time: 8.37 min
End Time: 8.61 min

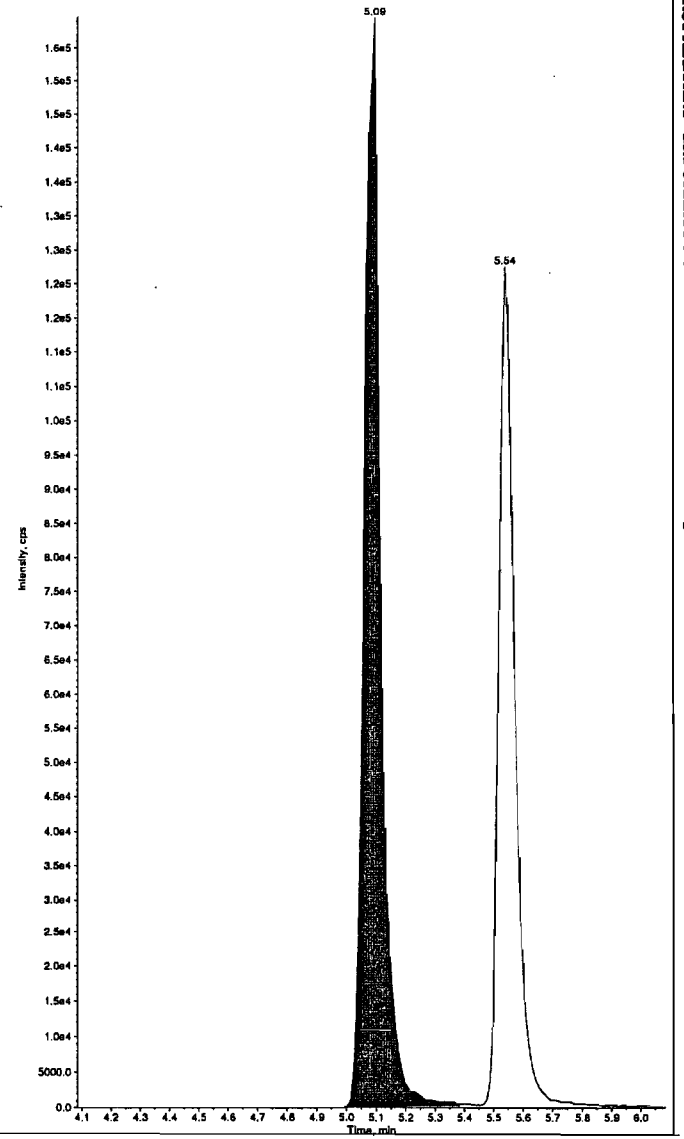


Sample Name: "1202041903" Sample ID: "952679|2|LER" File: "EXS02250049.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 503. ng/mL
Acq. Date: 3/25/2010
Acq. Time: 9:04:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.09 min
Area: 6.55e+005 counts
Height: 159580.872 cps
Start Time: 4.98 min
End Time: 5.38 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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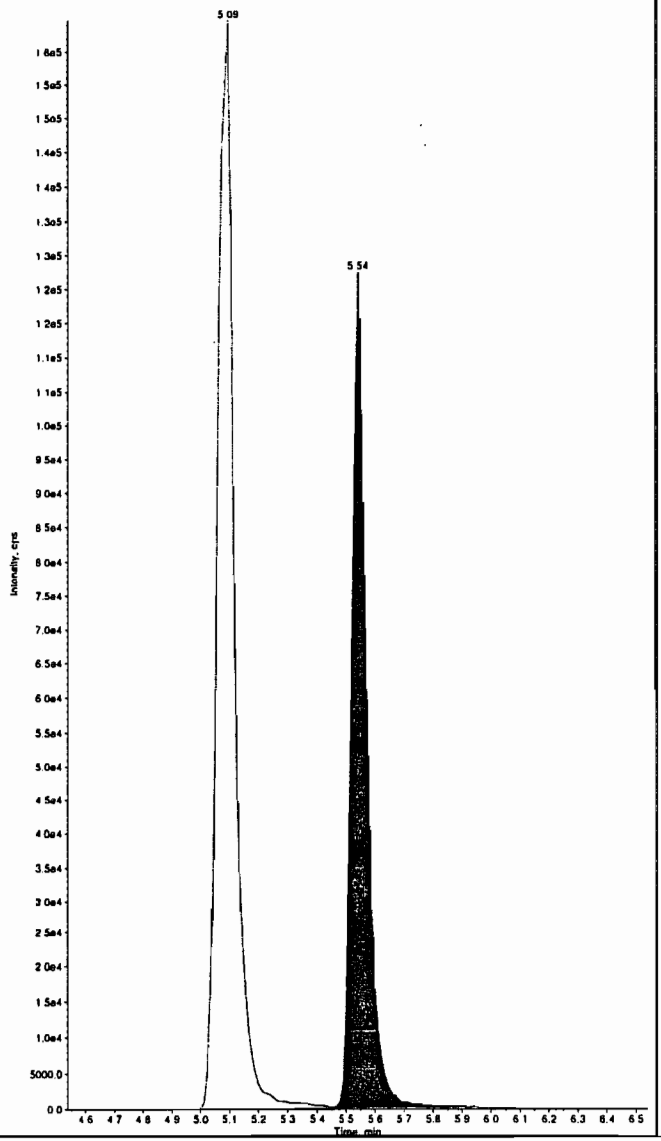
Sample Name: "1202041903" Sample ID: "952679|2|LER" File: "EXS02250049.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 517. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:04:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.54 min
Area: 4.70e+005 counts
Height: 122430.702 cps
Start Time: 5.45 min
End Time: 5.62 min

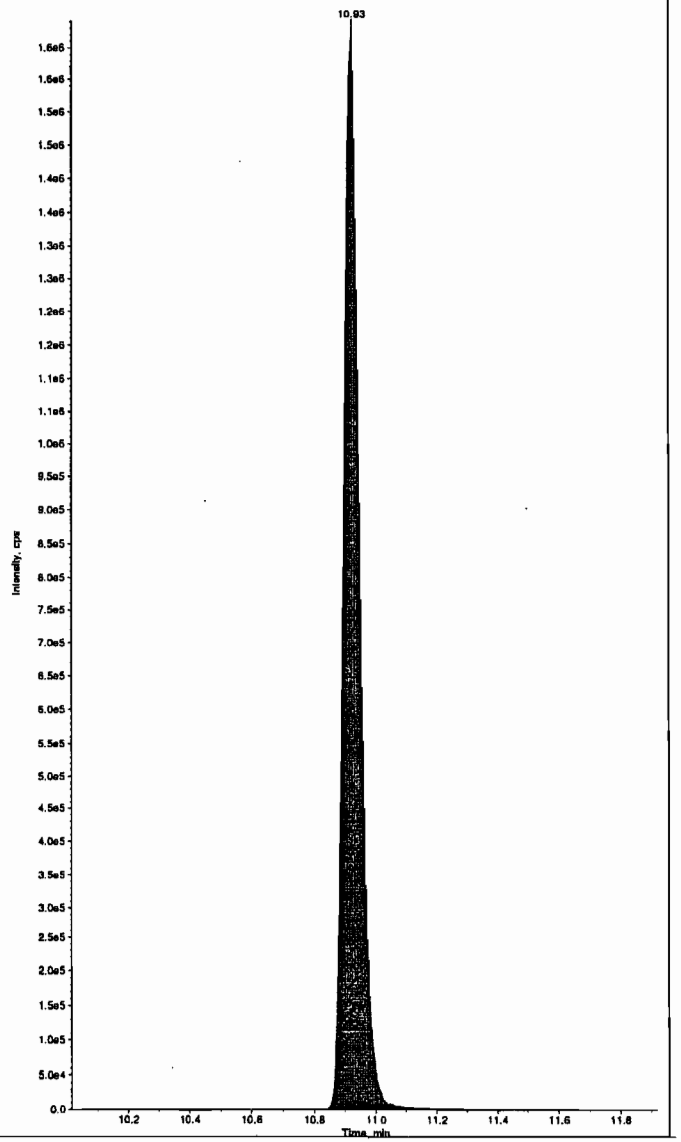


Sample Name: "1202041903" Sample ID: "952679|2|LER" File: "EXS02250049.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 485. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:04:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.06e+006 counts
Height: 1641797.241 cps
Start Time: 10.8 min
End Time: 11.3 min



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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

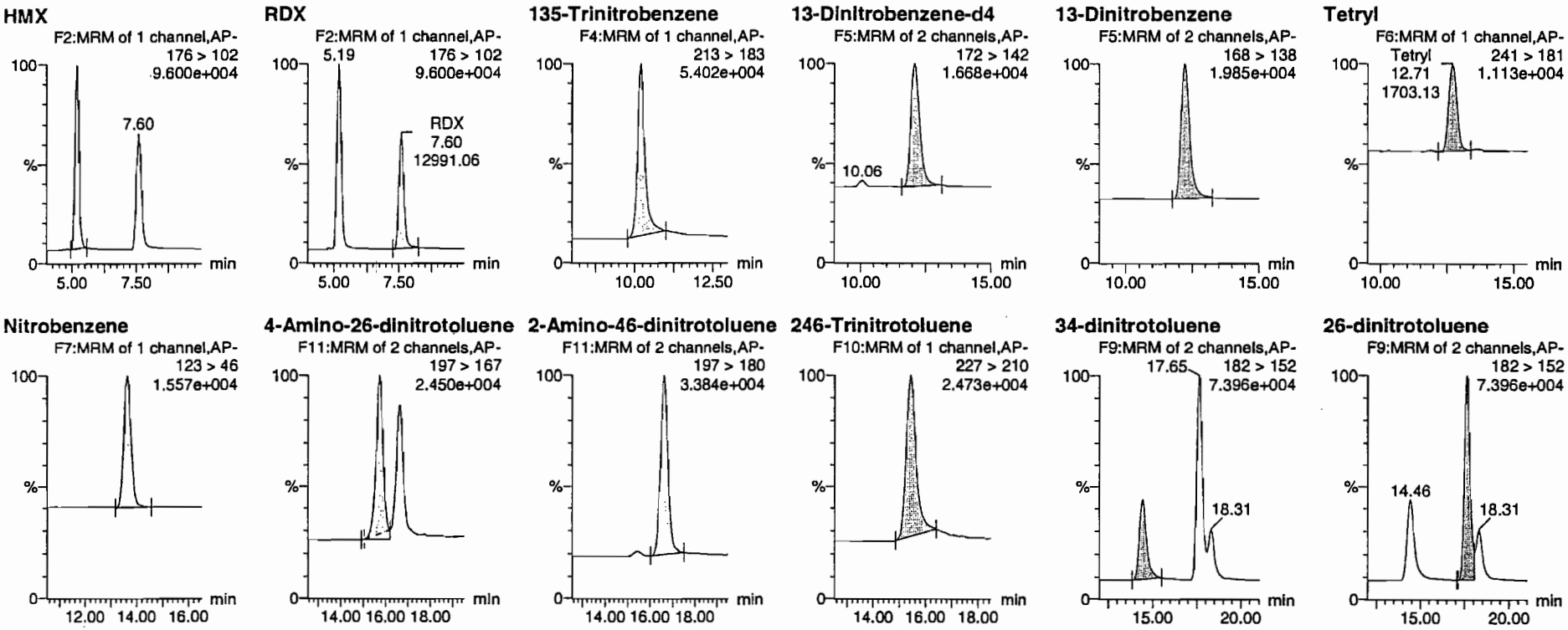
Printed: Sat Mar 06 12:20:52 2010, Page 41 of 107

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304059a
Date: 05-Mar-2010
Time: 19:47:26
ID: 1202041904
Vial: 2:5,E

| LANL | 952679 | SOLID | 246721001 MSD | 2 |

MAP 3/6/10

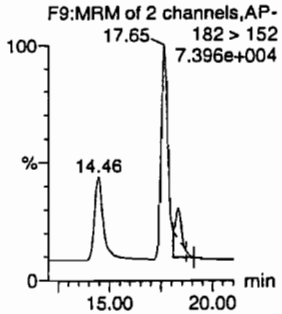


HMM 03/07/10

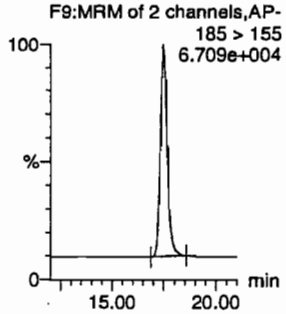
Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

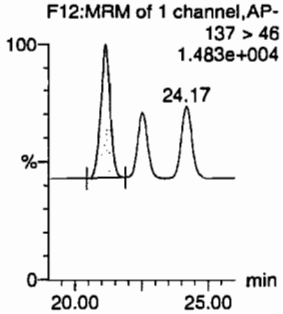
24-dinitrotoluene



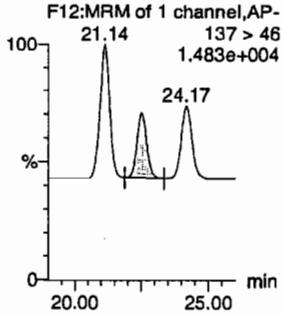
26-dinitrotoluene-d3



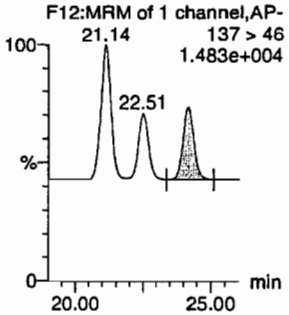
2-Nitrotoluene



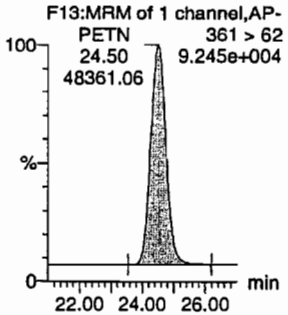
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202041904	HMX	176 > 102	5.19	17475.943	4233.944	17475.943	2063.790	bb			442.4644	88.5	-11.5	2600.1
1202041904	RDX	176 > 102	7.60	12991.058	4233.944	12991.058	1534.156	bb			536.1558	107.2	7.2	1647.7
1202041904	135-Trinitrobenzene	213 > 183	10.19	13359.164	4233.944	13359.164	1577.626	bb			405.1622	81.0	-19.0	1533.0
1202041904	13-Dinitrobenzene-d4	172 > 142	12.10	4233.944		4233.944	4233.944	bb			602.8187	120.6	20.6	156.6
1202041904	13-Dinitrobenzene	168 > 138	12.20	5265.456	4233.944	5265.456	621.815	bb			490.9854	98.2	-1.8	484.1
1202041904	Tetryl	241 > 181	12.71	1703.130	4233.944	1703.130	201.128	bb			197.6587	39.5	-60.5	178.7
1202041904	Nitrobenzene	123 > 46	13.66	3231.356	4233.944	3231.356	381.601	bb			462.1358	92.4	-7.6	270.4
1202041904	4-Amino-26-dinitrotoluene	197 > 167	15.73	7255.670	24306.730	7255.670	149.252	MM	06-Mar-10	12:09:50	541.1073	108.2	8.2	434.6
1202041904	2-Amino-46-dinitrotoluene	197 > 180	16.62	10592.000	24306.730	10592.000	217.882	bb			537.8441	107.6	7.6	771.0
1202041904	246-Trinitrotoluene	227 > 210	15.44	8030.914	24306.730	8030.914	165.199	bb			502.7261	100.5	0.5	424.3
1202041904	34-dinitrotoluene	182 > 152	14.46	12443.533	24306.730	12443.533	255.969	bb			264.8502	105.9	5.9	444.8
1202041904	26-dinitrotoluene	182 > 152	17.65	25602.301	24306.730	25602.301	526.650	MM	06-Mar-10	12:13:40	472.1025	94.4	-5.6	1161.7
1202041904	24-dinitrotoluene	182 > 152	18.31	6636.641	24306.730	6636.641	136.519	MM	06-Mar-10	12:16:41	495.2652	99.1	-0.9	270.2
1202041904	26-dinitrotoluene-d3	185 > 155	17.48	24306.730		24306.730	24306.730	bb			591.1002	118.2	18.2	3369.6
1202041904	2-Nitrotoluene	137 > 46	21.14	3568.256	24306.730	3568.256	73.401	bb			473.8614	94.8	-5.2	376.1
1202041904	4-Nitrotoluene	137 > 46	22.51	1797.675	24306.730	1797.675	36.979	bb			484.8177	97.0	-3.0	182.9
1202041904	3-Nitrotoluene	137 > 46	24.17	2153.069	24306.730	2153.069	44.290	bb			469.3951	93.9	-6.1	203.0
1202041904	PETN	361 > 62	24.50	48361.063	24306.730	48361.063	994.808	bb			529.6218	105.9	5.9	10270.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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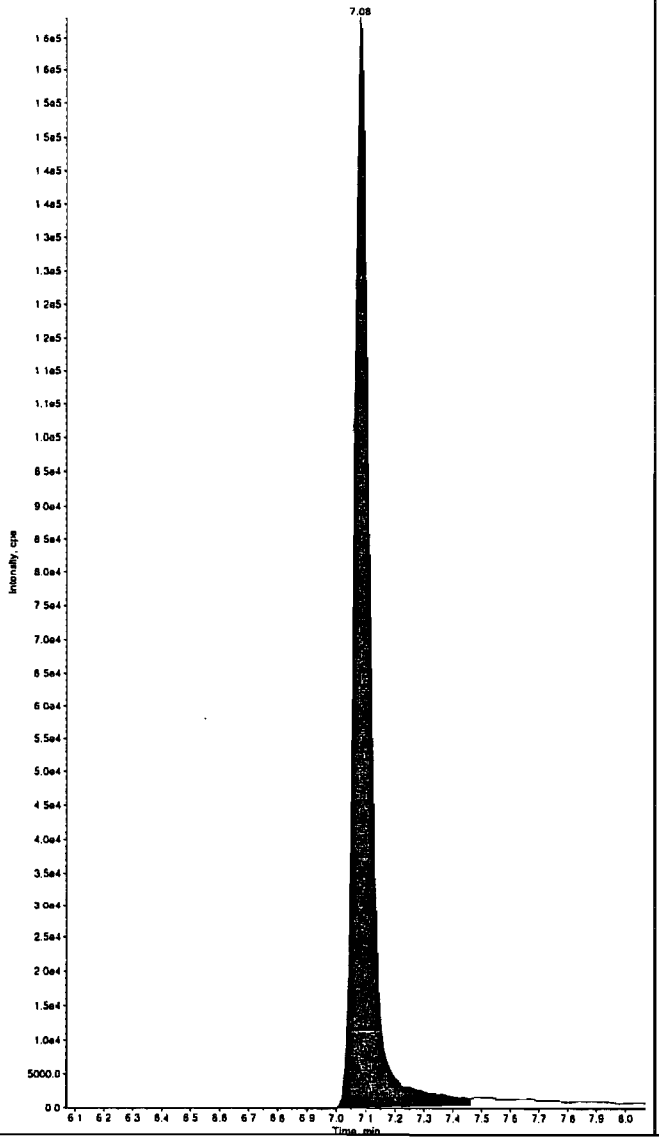
Sample Name: "1202041904" Sample ID: "952679|2|LER" File: "EXS02250050.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 706. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:20:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.08 min
Area: 6.66e+005 counts
Height: 162990.982 cps
Start Time: 6.99 min
End Time: 7.46 min

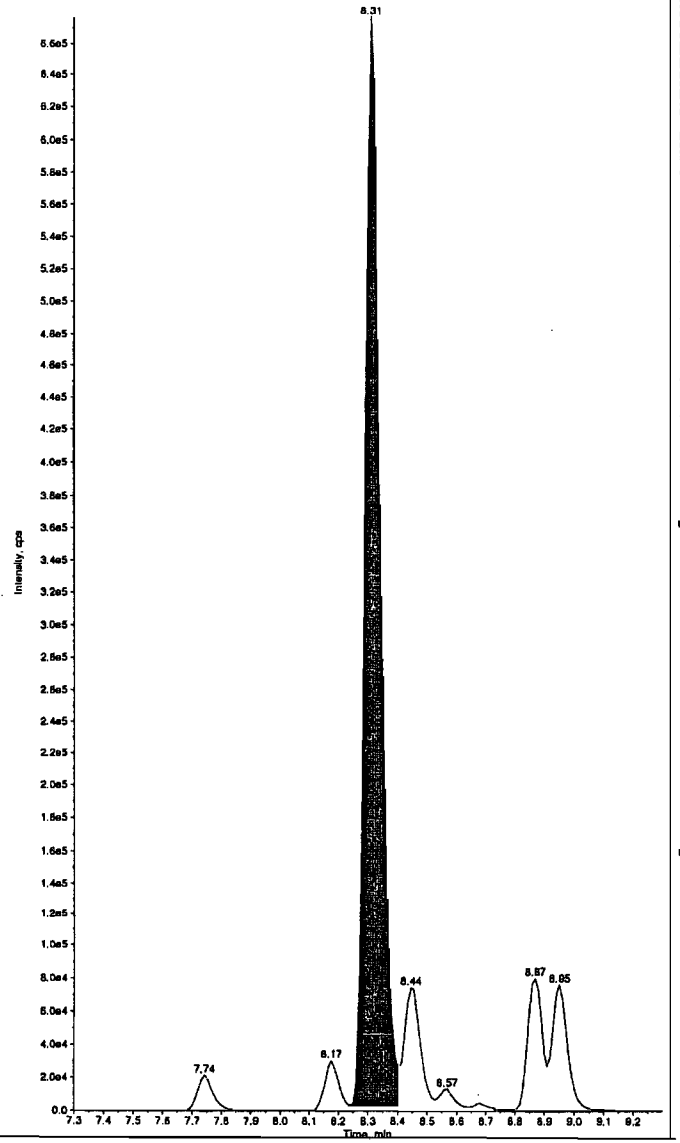


Sample Name: "1202041904" Sample ID: "952679|2|LER" File: "EXS02250050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 556. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:20:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.31 min
Area: 2.51e+006 counts
Height: 673857.239 cps
Start Time: 8.24 min
End Time: 8.40 min



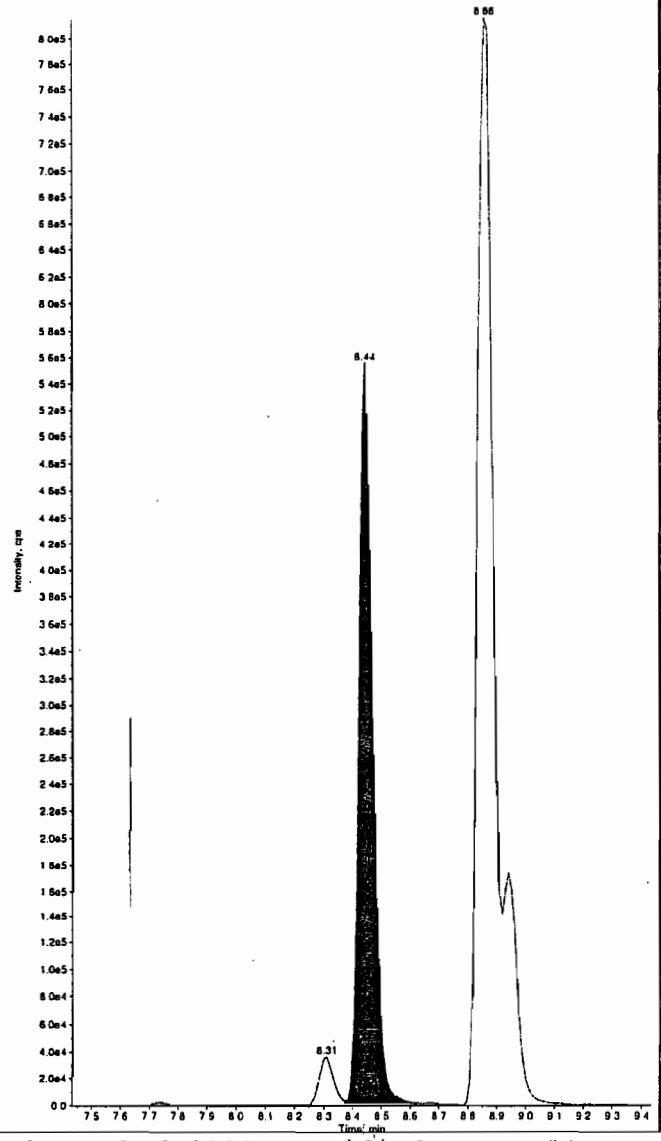
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202041904" Sample ID: "952679|2|LER" File: "EXS02250050.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 390. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:20:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.44 min
Area: 1.96e+006 counts
Height: 553765.198 cps
Start Time: 8.37 min
End Time: 8.63 min

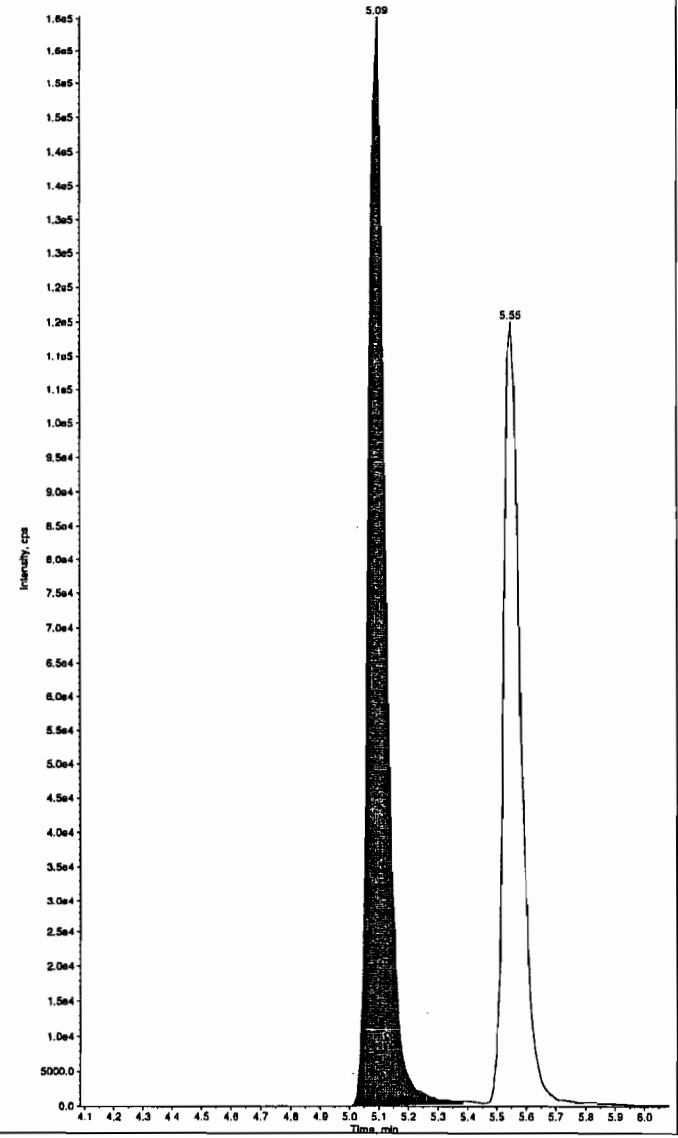


Sample Name: "1202041904" Sample ID: "952679|2|LER" File: "EXS02250050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 528. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:20:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.09 min
Area: 6.87e+005 counts
Height: 160348.679 cps
Start Time: 4.99 min
End Time: 5.38 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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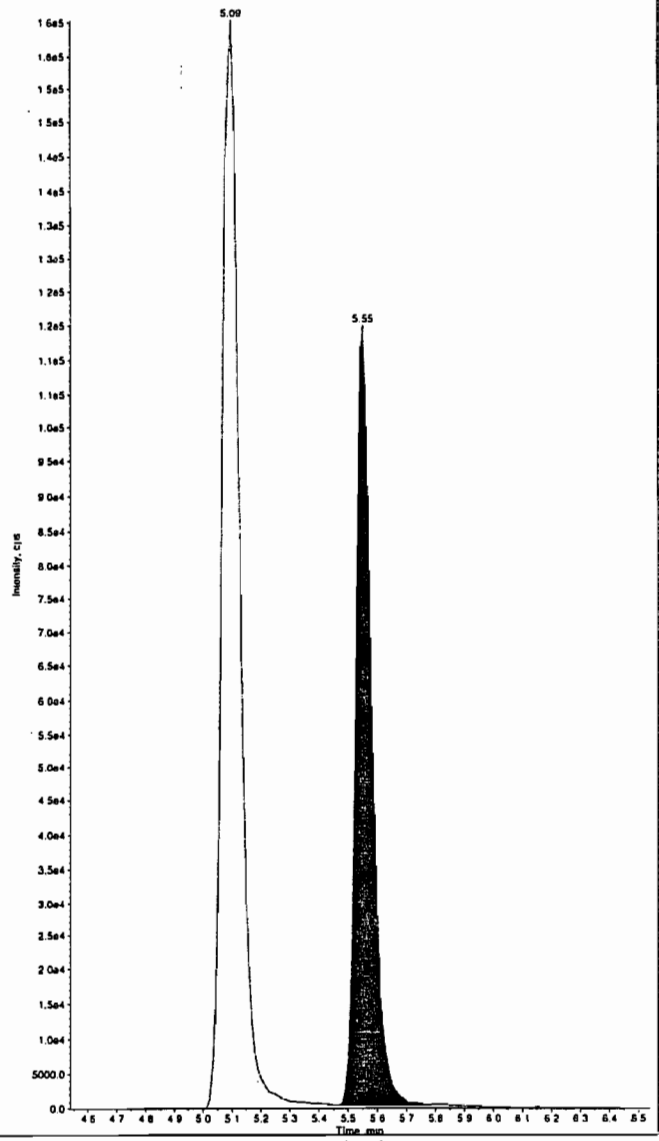
Sample Name: "1202041904" Sample ID: "952679|2|LER" File: "EXS02250050.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 507. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:20:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 150.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.54 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.55 min
Area: 4.60e+005 counts
Height: 114635.628 cps
Start Time: 5.46 min
End Time: 5.79 min

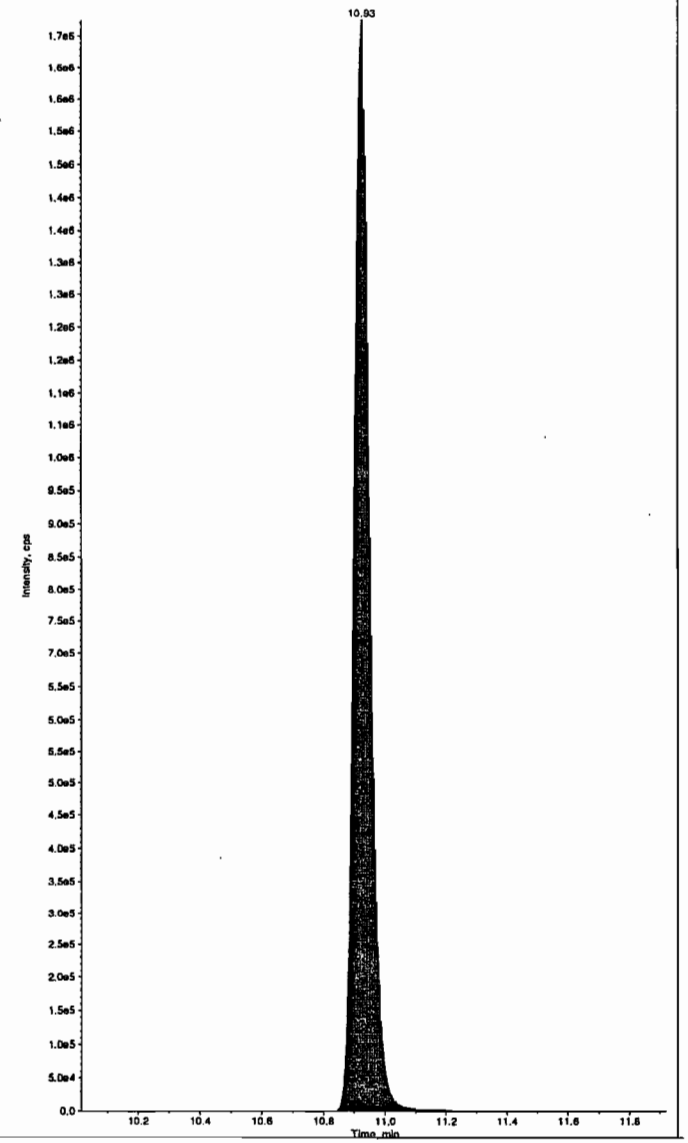


Sample Name: "1202041904" Sample ID: "952679|2|LER" File: "EXS02250050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 505. ng/mL
Acq. Date: 2/25/2010
Acq. Time: 9:20:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.30e+006 counts
Height: 1673622.437 cps
Start Time: 10.8 min
End Time: 11.3 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
952679	See Below		

Potentially affected work order(s)(SDG): 246721(10-1709),246837(10-1747),246841(10-1748),246843(10-1749),246846(10-1750),246847(10-1751)

Application Issues:

Samples analyzed outside of Standard Operating Procedure

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The following samples were analyzed outside of the Standard Operating Procedure for more the ten samples between CCVs: 246721001, 246721002, 246837001, 246837002, 246837003, 1202041901(MB), 1202041902(LCS), 1202041903(MS) and 1202041904(MSD).	1. Due to an analyst oversight during sample sequencing, more than ten samples were analyzed between CCVs. The bracketing CCVs met acceptance criteria, therefore, the data is considered unaffected. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
2. The Matrix Spike (1202041903) did not meet spike recovery limits for Tetryl at 29.1%. The recovery limits are 36-124%.	2. While the Matrix Spike Duplicate met recovery limits, the spike recovery was biased low. Since similar recoveries were observed, the noted exception is attributed to sample matrix interference. The Laboratory Control Sample met acceptance criteria, therefore, the data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
3. The MS/MSD pair (1202041903/4) did not meet RPD acceptance limits for Tetryl at 30.4%. The acceptance limits are 0-30%.	3. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.

Originator's Name:

Michael Penny 06-MAR-10

Data Validator/Group Leader:

Herbert Maier 07-MAR-10

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1747

Sample Analysis

Sample ID	Client ID
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987
246837005	RE15-10-7988
246837006	RE15-10-7989
1202042554	Method Blank (MB) **ICP**
1202042559	Laboratory Control Sample (LCS)
1202042556	246837001(RE15-10-7992L) Serial Dilution (SD)
1202042555	246837001(RE15-10-7992D) Sample Duplicate (DUP)
1202042557	246837001(RE15-10-7992S) Matrix Spike (MS)
1202042558	246837001(RE15-10-7992SD) Matrix Spike Duplicate (MSD)
1202042560	Method Blank (MB) **ICP-MS**
1202042565	Laboratory Control Sample (LCS)
1202042562	246837001(RE15-10-7992L) Serial Dilution (SD)
1202042561	246837001(RE15-10-7992D) Sample Duplicate (DUP)
1202042563	246837001(RE15-10-7992S) Matrix Spike (MS)
1202042564	246837001(RE15-10-7992SD) Matrix Spike Duplicate (MSD)
1202053830	Method Blank (MB) **CVAA**
1202053831	Laboratory Control Sample (LCS)

1202053834	246881001(RE46-10-12715L) Serial Dilution (SD)
1202053832	246881001(RE46-10-12715D) Sample Duplicate (DUP)
1202053833	246881001(RE46-10-12715S) Matrix Spike (MS)
1202053835	246881001(RE46-10-12715SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	952945, 952947, 963319 and 957797
Prep Batch :	952944, 952946, 963318 and 957796
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

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

Calibration Information

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

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 246837001 (RE15-10-7992) and 246881001 (RE46-10-12715).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, magnesium and nickel, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of aluminum, as indicated by the "N" qualifier.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of antimony, cadmium, chromium, copper, vanadium and nickel, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of vanadium, as indicated by the "E" qualifier.

Technical Information

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

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 796916 and 802729. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Kristen Parson **Date:** 3/11/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837001 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7992 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1830000	ug/Kg	N	7440	21900	21900	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-36-0	Antimony	1290	ug/Kg	*	361	1090	1090	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-38-2	Arsenic	0.757	mg/kg	J	0.215	1.08	1.08	2	MS	BAJ	03/08/10 18:03	100308-3	952947
7440-39-3	Barium	21300	ug/Kg		109	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-41-7	Beryllium	0.371	mg/kg		0.0215	0.108	0.108	2	MS	BAJ	03/08/10 18:03	100308-3	952947
7440-43-9	Cadmium	886	ug/Kg	*	109	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-70-2	Calcium	399000	ug/Kg		8750	27300	27300	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-47-3	Chromium	8690	ug/Kg	*	164	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-48-4	Cobalt	5190	ug/Kg		164	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-50-8	Copper	6080	ug/Kg	*	328	1090	1090	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7439-89-6	Iron	9330000	ug/Kg		8750	27300	27300	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7439-92-1	Lead	5550	ug/Kg		273	1090	1090	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7439-95-4	Magnesium	352000	ug/Kg	N	9300	32800	32800	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7439-96-5	Manganese	272000	ug/Kg		219	1090	1090	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7439-97-6	Mercury	19.6	ug/kg		4.35	12.8	12.8	1	AV	JXL1	02/26/10 11:08	022610S1-4	957797
7440-02-0	Nickel	17	mg/kg	*N	0.105	0.42	0.42	2	MS	PRB	03/10/10 20:36	100310-2	963319
7440-09-7	Potassium	408000	ug/Kg		7000	27300	27300	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7782-49-2	Selenium	1.08	mg/kg	U	0.538	1.08	1.08	2	MS	BAJ	03/08/10 18:03	100308-3	952947
7440-22-4	Silver	501	ug/Kg	J	109	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-23-5	Sodium	214000	ug/Kg		7660	27300	27300	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-28-0	Thallium	0.215	mg/kg	U	0.0646	0.215	0.215	2	MS	BAJ	03/08/10 18:03	100308-3	952947
7440-61-1	Uranium	0.548	mg/kg		0.0139	0.042	0.042	2	MS	PRB	03/10/10 20:36	100310-2	963319
7440-62-2	Vanadium	5660	ug/Kg	*E	109	547	547	1	P	JWJ	02/27/10 19:37	022710B-1	952945
7440-66-6	Zinc	46800	ug/Kg		361	1090	1090	1	P	JWJ	02/27/10 19:37	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.503	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.511	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.516	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.524	g	50	mL	03/10/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837002 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7991 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 71

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3450000	ug/Kg	N	8780	25800	25800	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-36-0	Antimony	1290	ug/Kg	U*	426	1290	1290	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-38-2	Arsenic	1.62	mg/kg		0.281	1.41	1.41	2	MS	BAJ	03/08/10 18:21	100308-3	952947
7440-39-3	Barium	44300	ug/Kg		129	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-41-7	Beryllium	0.512	mg/kg		0.0281	0.141	0.141	2	MS	BAJ	03/08/10 18:21	100308-3	952947
7440-43-9	Cadmium	436	ug/Kg	J*	129	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-70-2	Calcium	1170000	ug/Kg		10300	32300	32300	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-47-3	Chromium	3690	ug/Kg	*	194	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-48-4	Cobalt	12900	ug/Kg		194	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-50-8	Copper	6890	ug/Kg	*	388	1290	1290	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7439-89-6	Iron	11400000	ug/Kg		10300	32300	32300	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7439-92-1	Lead	19300	ug/Kg		323	1290	1290	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7439-95-4	Magnesium	559000	ug/Kg	N	11000	38800	38800	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7439-96-5	Manganese	369000	ug/Kg		258	1290	1290	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7439-97-6	Mercury	21.5	ug/kg		5.67	16.7	16.7	1	AV	JXL1	02/26/10 11:10	022610S1-4	957797
7440-02-0	Nickel	3.23	mg/kg	*N	0.132	0.528	0.528	2	MS	PRB	03/10/10 20:58	100310-2	963319
7440-09-7	Potassium	864000	ug/Kg		8270	32300	32300	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7782-49-2	Selenium	1.41	mg/kg	U	0.703	1.41	1.41	2	MS	BAJ	03/08/10 18:21	100308-3	952947
7440-22-4	Silver	798	ug/Kg		129	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-23-5	Sodium	430000	ug/Kg		9040	32300	32300	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-28-0	Thallium	0.281	mg/kg	U	0.0843	0.281	0.281	2	MS	BAJ	03/08/10 18:21	100308-3	952947
7440-61-1	Uranium	2.8	mg/kg		0.0174	0.0528	0.0528	2	MS	PRB	03/10/10 20:58	100310-2	963319
7440-62-2	Vanadium	6190	ug/Kg	*E	129	646	646	1	P	JWJ	02/27/10 20:02	022710B-1	952945
7440-66-6	Zinc	46400	ug/Kg		426	1290	1290	1	P	JWJ	02/27/10 20:02	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.545	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.501	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.507	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.533	g	50	mL	03/10/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837003 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7990 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 92

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1940000	ug/Kg	N	7330	21600	21600	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-36-0	Antimony	1080	ug/Kg	U*	356	1080	1080	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-38-2	Arsenic	0.839	mg/kg	J	0.217	1.08	1.08	2	MS	BAJ	03/08/10 18:32	100308-3	952947
7440-39-3	Barium	30500	ug/Kg		108	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-41-7	Beryllium	0.283	mg/kg		0.0217	0.108	0.108	2	MS	BAJ	03/08/10 18:32	100308-3	952947
7440-43-9	Cadmium	210	ug/Kg	J*	108	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-70-2	Calcium	543000	ug/Kg		8630	27000	27000	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-47-3	Chromium	5270	ug/Kg	*	162	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-48-4	Cobalt	4040	ug/Kg		162	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-50-8	Copper	4570	ug/Kg	*	323	1080	1080	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7439-89-6	Iron	8710000	ug/Kg		8630	27000	27000	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7439-92-1	Lead	5860	ug/Kg		270	1080	1080	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7439-95-4	Magnesium	370000	ug/Kg	N	9170	32300	32300	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7439-96-5	Manganese	290000	ug/Kg		216	1080	1080	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7439-97-6	Mercury	11.7	ug/kg	J	4.14	12.2	12.2	1	AV	JXL1	02/26/10 11:12	022610S1-4	957797
7440-02-0	Nickel	11.3	mg/kg	*N	0.103	0.413	0.413	2	MS	PRB	03/10/10 21:00	100310-2	963319
7440-09-7	Potassium	400000	ug/Kg		6900	27000	27000	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7782-49-2	Selenium	1.08	mg/kg	U	0.542	1.08	1.08	2	MS	BAJ	03/08/10 18:32	100308-3	952947
7440-22-4	Silver	147	ug/Kg	J	108	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-23-5	Sodium	169000	ug/Kg		7550	27000	27000	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-28-0	Thallium	0.217	mg/kg	U	0.0651	0.217	0.217	2	MS	BAJ	03/08/10 18:32	100308-3	952947
7440-61-1	Uranium	1.47	mg/kg		0.0136	0.0413	0.0413	2	MS	PRB	03/10/10 21:00	100310-2	963319
7440-62-2	Vanadium	6710	ug/Kg	*E	108	539	539	1	P	JWJ	02/27/10 20:06	022710B-1	952945
7440-66-6	Zinc	37500	ug/Kg		356	1080	1080	1	P	JWJ	02/27/10 20:06	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.504	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.501	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.535	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.526	g	50	mL	03/10/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837004 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7987 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 66

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5640000	ug/Kg	N	9320	27400	27400	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-36-0	Antimony	1370	ug/Kg	U*	452	1370	1370	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-38-2	Arsenic	1.85	mg/kg		0.279	1.4	1.4	2	MS	BAJ	03/08/10 18:36	100308-3	952947
7440-39-3	Barium	91700	ug/Kg		137	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-41-7	Beryllium	0.777	mg/kg		0.0279	0.14	0.14	2	MS	BAJ	03/08/10 18:36	100308-3	952947
7440-43-9	Cadmium	425	ug/Kg	J*	137	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-70-2	Calcium	2060000	ug/Kg		11000	34300	34300	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-47-3	Chromium	8220	ug/Kg	*	206	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-48-4	Cobalt	3690	ug/Kg		206	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-50-8	Copper	9880	ug/Kg	*	411	1370	1370	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7439-89-6	Iron	10200000	ug/Kg		11000	34300	34300	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7439-92-1	Lead	18900	ug/Kg		343	1370	1370	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7439-95-4	Magnesium	1200000	ug/Kg	N	11700	41100	41100	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7439-96-5	Manganese	298000	ug/Kg		274	1370	1370	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7439-97-6	Mercury	7.06	ug/kg	J	5.56	16.4	16.4	1	AV	JXL1	02/26/10 11:14	022610S1-4	957797
7440-02-0	Nickel	5.24	mg/kg	*N	0.14	0.562	0.562	2	MS	PRB	03/10/10 21:03	100310-2	963319
7440-09-7	Potassium	1150000	ug/Kg		8780	34300	34300	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7782-49-2	Selenium	1.4	mg/kg	U	0.698	1.4	1.4	2	MS	BAJ	03/08/10 18:36	100308-3	952947
7440-22-4	Silver	686	ug/Kg	U	137	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-23-5	Sodium	42100	ug/Kg		9600	34300	34300	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-28-0	Thallium	0.140	mg/kg	J	0.0838	0.279	0.279	2	MS	BAJ	03/08/10 18:36	100308-3	952947
7440-61-1	Uranium	13.7	mg/kg		0.0185	0.0562	0.0562	2	MS	PRB	03/10/10 21:03	100310-2	963319
7440-62-2	Vanadium	18700	ug/Kg	*E	137	686	686	1	P	JWJ	02/27/10 20:09	022710B-1	952945
7440-66-6	Zinc	29900	ug/Kg		452	1370	1370	1	P	JWJ	02/27/10 20:09	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.556	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.546	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.559	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.543	g	50	mL	03/10/10	AXG2

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837005 **BASIS:** Dry Weight **DATE COLLECTED** 08–FEB–10

CLIENT ID: RE15–10–7988 **LEVEL:** Low **DATE RECEIVED** 11–FEB–10

MATRIX: SOIL **%SOLIDS:** 90.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	4920000	ug/Kg	N	7480	22000	22000	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7440–36–0	Antimony	1100	ug/Kg	U*	363	1100	1100	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7440–38–2	Arsenic	1.23	mg/kg		0.219	1.1	1.1	2	MS	BAJ	03/08/10 18:39	100308–3	952947
7440–39–3	Barium	52200	ug/Kg		110	550	550	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7440–41–7	Beryllium	0.379	mg/kg		0.0219	0.11	0.11	2	MS	BAJ	03/08/10 18:39	100308–3	952947
7440–43–9	Cadmium	247	ug/Kg	J*	110	550	550	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7440–70–2	Calcium	1220000	ug/Kg		8800	27500	27500	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7440–47–3	Chromium	10500	ug/Kg	*	165	550	550	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7440–48–4	Cobalt	4410	ug/Kg		165	550	550	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7440–50–8	Copper	5560	ug/Kg	*	330	1100	1100	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7439–89–6	Iron	10700000	ug/Kg		8800	27500	27500	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7439–92–1	Lead	5850	ug/Kg		275	1100	1100	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7439–95–4	Magnesium	915000	ug/Kg	N	9350	33000	33000	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7439–96–5	Manganese	195000	ug/Kg		220	1100	1100	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7439–97–6	Mercury	9.93	ug/kg	J	4.17	12.3	12.3	1	AV	JXL1	02/26/10 11:16	022610S1–4	957797
7440–02–0	Nickel	12.3	mg/kg	*N	0.109	0.437	0.437	2	MS	PRB	03/10/10 21:05	100310–2	963319
7440–09–7	Potassium	819000	ug/Kg		7040	27500	27500	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7782–49–2	Selenium	1.1	mg/kg	U	0.549	1.1	1.1	2	MS	BAJ	03/08/10 18:39	100308–3	952947
7440–22–4	Silver	550	ug/Kg	U	110	550	550	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7440–23–5	Sodium	178000	ug/Kg		7700	27500	27500	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7440–28–0	Thallium	0.219	mg/kg	U	0.0658	0.219	0.219	2	MS	BAJ	03/08/10 18:39	100308–3	952947
7440–61–1	Uranium	0.905	mg/kg		0.0144	0.0437	0.0437	2	MS	PRB	03/10/10 21:05	100310–2	963319
7440–62–2	Vanadium	10200	ug/Kg	*E	110	550	550	1	P	JWJ	02/27/10 20:13	022710B–1	952945
7440–66–6	Zinc	38800	ug/Kg		363	1100	1100	1	P	JWJ	02/27/10 20:13	022710B–1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.501	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.502	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.539	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.504	g	50	mL	03/10/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246837006 **BASIS:** Dry Weight **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-7989 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: SOIL **%SOLIDS:** 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7090000	ug/Kg	N	8320	24500	24500	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-36-0	Antimony	1220	ug/Kg	U*	404	1220	1220	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-38-2	Arsenic	2.05	mg/kg		0.234	1.17	1.17	2	MS	BAJ	03/08/10 18:43	100308-3	952947
7440-39-3	Barium	88700	ug/Kg		122	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-41-7	Beryllium	0.627	mg/kg		0.0234	0.117	0.117	2	MS	BAJ	03/08/10 18:43	100308-3	952947
7440-43-9	Cadmium	402	ug/Kg	J*	122	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-70-2	Calcium	2030000	ug/Kg		9780	30600	30600	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-47-3	Chromium	6240	ug/Kg	*	183	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-48-4	Cobalt	5950	ug/Kg		183	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-50-8	Copper	12700	ug/Kg	*	367	1220	1220	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7439-89-6	Iron	10200000	ug/Kg		9780	30600	30600	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7439-92-1	Lead	19200	ug/Kg		306	1220	1220	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7439-95-4	Magnesium	1340000	ug/Kg	N	10400	36700	36700	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7439-96-5	Manganese	288000	ug/Kg		245	1220	1220	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7439-97-6	Mercury	10.8	ug/kg	J	5.06	14.9	14.9	1	AV	JXL1	02/26/10 11:18	022610S1-4	957797
7440-02-0	Nickel	5.41	mg/kg	*N	0.12	0.48	0.48	2	MS	PRB	03/10/10 21:07	100310-2	963319
7440-09-7	Potassium	1200000	ug/Kg		7830	30600	30600	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7782-49-2	Selenium	1.17	mg/kg	U	0.585	1.17	1.17	2	MS	BAJ	03/08/10 18:43	100308-3	952947
7440-22-4	Silver	356	ug/Kg	J	122	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-23-5	Sodium	69300	ug/Kg		8560	30600	30600	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-28-0	Thallium	0.103	mg/kg	J	0.0702	0.234	0.234	2	MS	BAJ	03/08/10 18:43	100308-3	952947
7440-61-1	Uranium	9.09	mg/kg		0.0158	0.048	0.048	2	MS	PRB	03/10/10 21:07	100310-2	963319
7440-62-2	Vanadium	17000	ug/Kg	*E	122	611	611	1	P	JWJ	02/27/10 20:17	022710B-1	952945
7440-66-6	Zinc	26700	ug/Kg		404	1220	1220	1	P	JWJ	02/27/10 20:17	022710B-1	952945

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952945	952944	SW846 3050B	0.557	g	50	mL	02/22/10	AXG2
952947	952946	SW846 3050B	0.582	g	50	mL	02/22/10	AXG2
957797	957796	SW846 7471A Prep	0.549	g	30	mL	02/25/10	TXB3
963319	963318	SW846 3050B	0.568	g	50	mL	03/10/10	AXG2

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.13	ug/L	5	ug/L	102.7	90.0 – 110.0	AV	26-FEB-10 10:10	022610S1-4
	Aluminum	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Antimony	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Barium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Cadmium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Calcium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Chromium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Cobalt	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Copper	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Iron	5290	ug/L	5000	ug/L	105.9	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Magnesium	5480	ug/L	5000	ug/L	109.6	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Manganese	531	ug/L	500	ug/L	106.3	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Potassium	2490	ug/L	2500	ug/L	99.7	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Silver	266	ug/L	250	ug/L	106.4	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Sodium	2540	ug/L	2500	ug/L	101.7	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Vanadium	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Zinc	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	27-FEB-10 14:24	022710B-1
	Arsenic	48.9	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	08-MAR-10 15:29	100308-3
	Beryllium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	08-MAR-10 15:29	100308-3
	Selenium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	08-MAR-10 15:29	100308-3
	Thallium	52.9	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	08-MAR-10 15:29	100308-3
	Nickel	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	10-MAR-10 20:15	100310-2
	Uranium	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	10-MAR-10 20:15	100310-2
CCV01										
	Mercury	5.11	ug/L	5	ug/L	102.3	80.0 – 120.0	AV	26-FEB-10 10:16	022610S1-4
	Aluminum	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	27-FEB-10 14:46	022710B-1
	Antimony	547	ug/L	500	ug/L	109.5	90.0 – 110.0	P	27-FEB-10 14:46	022710B-1
	Barium	531	ug/L	500	ug/L	106.3	90.0 – 110.0	P	27-FEB-10 14:46	022710B-1
	Cadmium	527	ug/L	500	ug/L	105.5	90.0 – 110.0	P	27-FEB-10 14:46	022710B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1747

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Chromium	550	ug/L	500	ug/L	110	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Cobalt	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Copper	537	ug/L	500	ug/L	107.5	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Iron	5410	ug/L	5000	ug/L	108.2	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Lead	548	ug/L	500	ug/L	109.6	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Magnesium	5490	ug/L	5000	ug/L	109.8	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Manganese	535	ug/L	500	ug/L	107.1	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Potassium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Silver	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Sodium	10600	ug/L	10000	ug/L	105.9	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Vanadium	532	ug/L	500	ug/L	106.3	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Zinc	534	ug/L	500	ug/L	106.8	90.0 – 110.0	P	27–FEB–10 14:46	022710B–1
	Arsenic	48.6	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	08–MAR–10 15:47	100308–3
	Beryllium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	08–MAR–10 15:47	100308–3
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	08–MAR–10 15:47	100308–3
	Thallium	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	08–MAR–10 15:47	100308–3
	Nickel	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	10–MAR–10 20:27	100310–2
	Uranium	48.8	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	10–MAR–10 20:27	100310–2
CCV02										
	Mercury	5.05	ug/L	5	ug/L	100.9	80.0 – 120.0	AV	26–FEB–10 10:40	022610S1–4
	Aluminum	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	27–FEB–10 15:02	022710B–1
	Antimony	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	27–FEB–10 15:02	022710B–1
	Barium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	27–FEB–10 15:02	022710B–1
	Cadmium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	27–FEB–10 15:02	022710B–1
	Calcium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	27–FEB–10 15:02	022710B–1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	27–FEB–10 15:02	022710B–1
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	27–FEB–10 15:02	022710B–1
	Copper	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	27–FEB–10 15:02	022710B–1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	27–FEB–10 15:02	022710B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	27-FEB-10 15:02	022710B-1
	Magnesium	5300	ug/L	5000	ug/L	106.1	90.0 - 110.0	P	27-FEB-10 15:02	022710B-1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	27-FEB-10 15:02	022710B-1
	Potassium	4970	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	27-FEB-10 15:02	022710B-1
	Silver	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	27-FEB-10 15:02	022710B-1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 - 110.0	P	27-FEB-10 15:02	022710B-1
	Vanadium	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	27-FEB-10 15:02	022710B-1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	27-FEB-10 15:02	022710B-1
	Arsenic	48.9	ug/L	50	ug/L	97.8	90.0 - 110.0	MS	08-MAR-10 16:20	100308-3
	Beryllium	52.6	ug/L	50	ug/L	105.2	90.0 - 110.0	MS	08-MAR-10 16:20	100308-3
	Selenium	50	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	08-MAR-10 16:20	100308-3
	Thallium	52.1	ug/L	50	ug/L	104.2	90.0 - 110.0	MS	08-MAR-10 16:20	100308-3
	Nickel	50.8	ug/L	50	ug/L	101.6	90.0 - 110.0	MS	10-MAR-10 20:53	100310-2
	Uranium	49.6	ug/L	50	ug/L	99.2	90.0 - 110.0	MS	10-MAR-10 20:53	100310-2
CCV03										
	Mercury	5.29	ug/L	5	ug/L	105.7	80.0 - 120.0	AV	26-FEB-10 11:04	022610S1-4
	Aluminum	5070	ug/L	5000	ug/L	101.3	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Antimony	470	ug/L	500	ug/L	94	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Barium	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Cadmium	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Calcium	5170	ug/L	5000	ug/L	103.5	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Chromium	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Copper	472	ug/L	500	ug/L	94.4	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Lead	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Manganese	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Potassium	4900	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Silver	474	ug/L	500	ug/L	94.7	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,MER536,OPTIMAI

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Vanadium	480	ug/L	500	ug/L	96.1	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Zinc	475	ug/L	500	ug/L	95.1	90.0 - 110.0	P	27-FEB-10 15:37	022710B-1
	Arsenic	48.3	ug/L	50	ug/L	96.6	90.0 - 110.0	MS	08-MAR-10 16:42	100308-3
	Beryllium	53.1	ug/L	50	ug/L	106.3	90.0 - 110.0	MS	08-MAR-10 16:42	100308-3
	Selenium	49	ug/L	50	ug/L	98	90.0 - 110.0	MS	08-MAR-10 16:42	100308-3
	Thallium	51.7	ug/L	50	ug/L	103.4	90.0 - 110.0	MS	08-MAR-10 16:42	100308-3
	Nickel	51.2	ug/L	50	ug/L	102.4	90.0 - 110.0	MS	10-MAR-10 21:17	100310-2
	Uranium	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	10-MAR-10 21:17	100310-2
CCV04										
	Mercury	5.46	ug/L	5	ug/L	109.2	80.0 - 120.0	AV	26-FEB-10 11:28	022610S1-4
	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Antimony	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Barium	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Calcium	5150	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Cobalt	505	ug/L	500	ug/L	101	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Copper	500	ug/L	500	ug/L	100	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Iron	5150	ug/L	5000	ug/L	103	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Lead	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Magnesium	5290	ug/L	5000	ug/L	105.7	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Manganese	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Potassium	5000	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Silver	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Vanadium	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	27-FEB-10 16:20	022710B-1
	Arsenic	48.2	ug/L	50	ug/L	96.4	90.0 - 110.0	MS	08-MAR-10 17:15	100308-3
	Beryllium	53.5	ug/L	50	ug/L	107	90.0 - 110.0	MS	08-MAR-10 17:15	100308-3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1747

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	49.4	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	08–MAR–10 17:15	100308–3
	Thallium	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	08–MAR–10 17:15	100308–3
CCV05										
	Mercury	4.88	ug/L	5	ug/L	97.7	80.0 – 120.0	AV	26–FEB–10 11:52	022610S1–4
	Aluminum	5400	ug/L	5000	ug/L	108.1	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Antimony	462	ug/L	500	ug/L	92.3	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Barium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Cadmium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Calcium	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Chromium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Cobalt	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Copper	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Iron	5380	ug/L	5000	ug/L	107.5	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Lead	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Magnesium	5440	ug/L	5000	ug/L	108.9	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Potassium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Sodium	10500	ug/L	10000	ug/L	104.8	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Vanadium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	27–FEB–10 17:03	022710B–1
	Arsenic	48.2	ug/L	50	ug/L	96.3	90.0 – 110.0	MS	08–MAR–10 17:48	100308–3
	Beryllium	54.5	ug/L	50	ug/L	109	90.0 – 110.0	MS	08–MAR–10 17:48	100308–3
	Selenium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	08–MAR–10 17:48	100308–3
	Thallium	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	08–MAR–10 17:48	100308–3
CCV06										
	Aluminum	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1747

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: 1CPMS3,ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Iron	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Magnesium	5250	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Manganese	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Potassium	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Silver	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Vanadium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Zinc	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	27–FEB–10 17:39	022710B–1
	Arsenic	48.3	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	08–MAR–10 18:25	100308–3
	Beryllium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	08–MAR–10 18:25	100308–3
	Selenium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	08–MAR–10 18:25	100308–3
	Thallium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	08–MAR–10 18:25	100308–3
CCV07										
	Aluminum	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Antimony	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Cadmium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Calcium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Copper	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Iron	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Lead	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1
	Manganese	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	27–FEB–10 18:14	022710B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	27-FEB-10 18:14	022710B-1
	Silver	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	27-FEB-10 18:14	022710B-1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 - 110.0	P	27-FEB-10 18:14	022710B-1
	Vanadium	495	ug/L	500	ug/L	99	90.0 - 110.0	P	27-FEB-10 18:14	022710B-1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	27-FEB-10 18:14	022710B-1
	Arsenic	47.9	ug/L	50	ug/L	95.8	90.0 - 110.0	MS	08-MAR-10 18:58	100308-3
	Beryllium	53.1	ug/L	50	ug/L	106.2	90.0 - 110.0	MS	08-MAR-10 18:58	100308-3
	Selenium	49.1	ug/L	50	ug/L	98.2	90.0 - 110.0	MS	08-MAR-10 18:58	100308-3
	Thallium	50.8	ug/L	50	ug/L	101.5	90.0 - 110.0	MS	08-MAR-10 18:58	100308-3
CCV08										
	Aluminum	5230	ug/L	5000	ug/L	104.6	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Antimony	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Barium	511	ug/L	500	ug/L	102.1	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Cadmium	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Calcium	5270	ug/L	5000	ug/L	105.3	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Chromium	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Cobalt	510	ug/L	500	ug/L	102	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Copper	508	ug/L	500	ug/L	101.5	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Lead	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Magnesium	5280	ug/L	5000	ug/L	105.7	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Manganese	521	ug/L	500	ug/L	104.1	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Silver	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Sodium	10100	ug/L	10000	ug/L	101.2	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Vanadium	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
	Zinc	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	27-FEB-10 18:50	022710B-1
CCV09										
	Aluminum	5030	ug/L	5000	ug/L	100.6	90.0 - 110.0	P	27-FEB-10 19:23	022710B-1
	Antimony	469	ug/L	500	ug/L	93.7	90.0 - 110.0	P	27-FEB-10 19:23	022710B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Calcium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Iron	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Lead	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Potassium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Silver	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Sodium	9840	ug/L	10000	ug/L	98.4	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Vanadium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	27-FEB-10 19:23	022710B-1
CCV10										
	Aluminum	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Antimony	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Barium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Chromium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Copper	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Magnesium	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1
	Silver	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	27-FEB-10 19:55	022710B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 - 110.0	P	27-FEB-10 19:55	022710B-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	27-FEB-10 19:55	022710B-1
	Zinc	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	27-FEB-10 19:55	022710B-1
CCV11										
	Aluminum	5270	ug/L	5000	ug/L	105.5	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Antimony	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Barium	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Calcium	5230	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Cobalt	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Copper	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Iron	5260	ug/L	5000	ug/L	105.3	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Lead	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Magnesium	5340	ug/L	5000	ug/L	106.8	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Silver	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Sodium	10200	ug/L	10000	ug/L	102.1	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1
	Zinc	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	27-FEB-10 20:28	022710B-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1747

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS3,ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.191	ug/L	.2	ug/L	95.4	70.0 – 130.0	AV	26–FEB–10 10:14	022610S1–4
	Thallium	1.21	ug/L	1	ug/L	121	70.0 – 130.0	MS	08–MAR–10 15:37	100308–3
	Beryllium	.566	ug/L	.5	ug/L	113.2	70.0 – 130.0	MS	08–MAR–10 15:37	100308–3
	Arsenic	5.8	ug/L	5	ug/L	116.1	70.0 – 130.0	MS	08–MAR–10 15:37	100308–3
	Selenium	5.37	ug/L	5	ug/L	107.3	70.0 – 130.0	MS	08–MAR–10 15:37	100308–3
	Nickel	2.29	ug/L	2	ug/L	114.7	70.0 – 130.0	MS	10–MAR–10 20:20	100310–2
	Uranium	.238	ug/L	.2	ug/L	119	70.0 – 130.0	MS	10–MAR–10 20:20	100310–2
PQL01										
	Aluminum	190	ug/L	200	ug/L	95.1	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Iron	124	ug/L	100	ug/L	123.8	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Lead	10.6	ug/L	10	ug/L	106.4	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Magnesium	330	ug/L	300	ug/L	110.1	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Manganese	10.2	ug/L	10	ug/L	102	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Potassium	129	ug/L	150	ug/L	86.3	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Silver	5.02	ug/L	5	ug/L	100.4	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Sodium	309	ug/L	300	ug/L	102.8	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Antimony	9.65	ug/L	10	ug/L	96.5	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Barium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Cadmium	4.96	ug/L	5	ug/L	99.1	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Chromium	4.82	ug/L	5	ug/L	96.4	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Cobalt	4.6	ug/L	5	ug/L	91.9	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Copper	9.83	ug/L	10	ug/L	98.3	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Vanadium	5.21	ug/L	5	ug/L	104.3	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Zinc	9.97	ug/L	10	ug/L	99.7	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1
	Calcium	199	ug/L	200	ug/L	99.7	70.0 – 130.0	P	27–FEB–10 14:31	022710B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1747

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	–0.113	+/–.2	J	0.068	0.2	SOL	AV	26–FEB–10 10:12	022610S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	27–FEB–10 14:27	022710B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 14:27	022710B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 14:27	022710B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 14:27	022710B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 14:27	022710B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	27–FEB–10 14:27	022710B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	27–FEB–10 14:27	022710B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	27–FEB–10 14:27	022710B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 14:27	022710B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	27–FEB–10 14:27	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 14:27	022710B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	27–FEB–10 14:27	022710B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	27–FEB–10 14:27	022710B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 14:27	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 14:27	022710B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 14:27	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 14:27	022710B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–MAR–10 15:33	100308–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAR–10 15:33	100308–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–MAR–10 15:33	100308–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	08–MAR–10 15:33	100308–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	10–MAR–10 20:17	100310–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	10–MAR–10 20:17	100310–2
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	26–FEB–10 10:18	022610S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	27–FEB–10 14:50	022710B–1
	Antimony	6.75	+/–10	J	3.3	10.0	SOL	P	27–FEB–10 14:50	022710B–1
	Barium	1.48	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 14:50	022710B–1
	Cadmium	1.57	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 14:50	022710B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 14:50	022710B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1747

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.87	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 14:50	022710B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	27–FEB–10 14:50	022710B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	27–FEB–10 14:50	022710B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 14:50	022710B–1
	Lead	3.02	+/–10	J	2.5	10.0	SOL	P	27–FEB–10 14:50	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 14:50	022710B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	27–FEB–10 14:50	022710B–1
	Potassium	78.9	+/–250	J	64.0	250	SOL	P	27–FEB–10 14:50	022710B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 14:50	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 14:50	022710B–1
	Vanadium	1.54	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 14:50	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 14:50	022710B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–MAR–10 15:51	100308–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAR–10 15:51	100308–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–MAR–10 15:51	100308–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	08–MAR–10 15:51	100308–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	10–MAR–10 20:29	100310–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	10–MAR–10 20:29	100310–2
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	26–FEB–10 10:42	022610S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	27–FEB–10 15:06	022710B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 15:06	022710B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 15:06	022710B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 15:06	022710B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 15:06	022710B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	27–FEB–10 15:06	022710B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	27–FEB–10 15:06	022710B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	27–FEB–10 15:06	022710B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 15:06	022710B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	27–FEB–10 15:06	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 15:06	022710B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1747

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	27–FEB–10 15:06	022710B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	27–FEB–10 15:06	022710B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 15:06	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 15:06	022710B–1
	Vanadium	1.09	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 15:06	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 15:06	022710B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–MAR–10 16:24	100308–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAR–10 16:24	100308–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–MAR–10 16:24	100308–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	08–MAR–10 16:24	100308–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	10–MAR–10 20:56	100310–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	10–MAR–10 20:56	100310–2
CCB03										
	Mercury	–0.068	+/–.2	J	0.068	0.2	SOL	AV	26–FEB–10 11:06	022610S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	27–FEB–10 15:41	022710B–1
	Antimony	4.9	+/–10	J	3.3	10.0	SOL	P	27–FEB–10 15:41	022710B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 15:41	022710B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 15:41	022710B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 15:41	022710B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	27–FEB–10 15:41	022710B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	27–FEB–10 15:41	022710B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	27–FEB–10 15:41	022710B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 15:41	022710B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	27–FEB–10 15:41	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 15:41	022710B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	27–FEB–10 15:41	022710B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	27–FEB–10 15:41	022710B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 15:41	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 15:41	022710B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 15:41	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 15:41	022710B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1747

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–MAR–10 16:46	100308–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAR–10 16:46	100308–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–MAR–10 16:46	100308–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	08–MAR–10 16:46	100308–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	10–MAR–10 21:19	100310–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	10–MAR–10 21:19	100310–2
CCB04										
	Mercury	–0.083	+/–.2	J	0.068	0.2	SOL	AV	26–FEB–10 11:30	022610S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	27–FEB–10 16:23	022710B–1
	Antimony	6.4	+/–10	J	3.3	10.0	SOL	P	27–FEB–10 16:23	022710B–1
	Barium	2.61	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 16:23	022710B–1
	Cadmium	2.62	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 16:23	022710B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 16:23	022710B–1
	Chromium	2.8	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 16:23	022710B–1
	Cobalt	2.41	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 16:23	022710B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	27–FEB–10 16:23	022710B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 16:23	022710B–1
	Lead	3.74	+/–10	J	2.5	10.0	SOL	P	27–FEB–10 16:23	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 16:23	022710B–1
	Manganese	2.9	+/–10	J	2.0	10.0	SOL	P	27–FEB–10 16:23	022710B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	27–FEB–10 16:23	022710B–1
	Silver	1.45	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 16:23	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 16:23	022710B–1
	Vanadium	2.36	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 16:23	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 16:23	022710B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–MAR–10 17:19	100308–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAR–10 17:19	100308–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–MAR–10 17:19	100308–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	08–MAR–10 17:19	100308–3
CCB05										
	Mercury	–0.174	+/–.2	J	0.068	0.2	SOL	AV	26–FEB–10 11:54	022610S1–4

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	27-FEB-10 17:07	022710B-1
	Antimony	4.52	+/-10	J	3.3	10.0	SOL	P	27-FEB-10 17:07	022710B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	27-FEB-10 17:07	022710B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	27-FEB-10 17:07	022710B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	27-FEB-10 17:07	022710B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	27-FEB-10 17:07	022710B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	27-FEB-10 17:07	022710B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	27-FEB-10 17:07	022710B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	27-FEB-10 17:07	022710B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	27-FEB-10 17:07	022710B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	27-FEB-10 17:07	022710B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	27-FEB-10 17:07	022710B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	27-FEB-10 17:07	022710B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	27-FEB-10 17:07	022710B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	27-FEB-10 17:07	022710B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	27-FEB-10 17:07	022710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	27-FEB-10 17:07	022710B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	08-MAR-10 17:51	100308-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	08-MAR-10 17:51	100308-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	08-MAR-10 17:51	100308-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	08-MAR-10 17:51	100308-3
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	27-FEB-10 17:42	022710B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	27-FEB-10 17:42	022710B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	27-FEB-10 17:42	022710B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	27-FEB-10 17:42	022710B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	27-FEB-10 17:42	022710B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	27-FEB-10 17:42	022710B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	27-FEB-10 17:42	022710B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	27-FEB-10 17:42	022710B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	27-FEB-10 17:42	022710B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1747

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	27–FEB–10 17:42	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 17:42	022710B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	27–FEB–10 17:42	022710B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	27–FEB–10 17:42	022710B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 17:42	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 17:42	022710B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 17:42	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 17:42	022710B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–MAR–10 18:28	100308–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAR–10 18:28	100308–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–MAR–10 18:28	100308–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	08–MAR–10 18:28	100308–3
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	27–FEB–10 18:17	022710B–1
	Antimony	3.37	+/–10	J	3.3	10.0	SOL	P	27–FEB–10 18:17	022710B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 18:17	022710B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 18:17	022710B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 18:17	022710B–1
	Chromium	1.5	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 18:17	022710B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	27–FEB–10 18:17	022710B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	27–FEB–10 18:17	022710B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 18:17	022710B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	27–FEB–10 18:17	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 18:17	022710B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	27–FEB–10 18:17	022710B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	27–FEB–10 18:17	022710B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 18:17	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 18:17	022710B–1
	Vanadium	1.31	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 18:17	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 18:17	022710B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–MAR–10 19:01	100308–3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1747

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAR–10 19:01	100308–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–MAR–10 19:01	100308–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	08–MAR–10 19:01	100308–3
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	27–FEB–10 18:54	022710B–1
	Antimony	4.72	+/–10	J	3.3	10.0	SOL	P	27–FEB–10 18:54	022710B–1
	Barium	1.79	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 18:54	022710B–1
	Cadmium	1.68	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 18:54	022710B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 18:54	022710B–1
	Chromium	2.23	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 18:54	022710B–1
	Cobalt	1.87	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 18:54	022710B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	27–FEB–10 18:54	022710B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 18:54	022710B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	27–FEB–10 18:54	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 18:54	022710B–1
	Manganese	2.28	+/–10	J	2.0	10.0	SOL	P	27–FEB–10 18:54	022710B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	27–FEB–10 18:54	022710B–1
	Silver	1.28	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 18:54	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 18:54	022710B–1
	Vanadium	1.65	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 18:54	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 18:54	022710B–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	27–FEB–10 19:27	022710B–1
	Antimony	3.55	+/–10	J	3.3	10.0	SOL	P	27–FEB–10 19:27	022710B–1
	Barium	1.93	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 19:27	022710B–1
	Cadmium	1.66	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 19:27	022710B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 19:27	022710B–1
	Chromium	2.11	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 19:27	022710B–1
	Cobalt	1.63	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 19:27	022710B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	27–FEB–10 19:27	022710B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 19:27	022710B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1747

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	27–FEB–10 19:27	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 19:27	022710B–1
	Manganese	2.22	+/–10	J	2.0	10.0	SOL	P	27–FEB–10 19:27	022710B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	27–FEB–10 19:27	022710B–1
	Silver	1.09	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 19:27	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 19:27	022710B–1
	Vanadium	2.02	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 19:27	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 19:27	022710B–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	27–FEB–10 19:59	022710B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 19:59	022710B–1
	Barium	1.73	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 19:59	022710B–1
	Cadmium	1.79	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 19:59	022710B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 19:59	022710B–1
	Chromium	2.32	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 19:59	022710B–1
	Cobalt	1.57	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 19:59	022710B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	27–FEB–10 19:59	022710B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 19:59	022710B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	27–FEB–10 19:59	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 19:59	022710B–1
	Manganese	2.03	+/–10	J	2.0	10.0	SOL	P	27–FEB–10 19:59	022710B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	27–FEB–10 19:59	022710B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 19:59	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 19:59	022710B–1
	Vanadium	1.72	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 19:59	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 19:59	022710B–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	27–FEB–10 20:31	022710B–1
	Antimony	4.27	+/–10	J	3.3	10.0	SOL	P	27–FEB–10 20:31	022710B–1
	Barium	1.87	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 20:31	022710B–1
	Cadmium	1.77	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 20:31	022710B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1747

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 20:31	022710B–1
	Chromium	2.23	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 20:31	022710B–1
	Cobalt	1.88	+/–5	J	1.5	5.0	SOL	P	27–FEB–10 20:31	022710B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	27–FEB–10 20:31	022710B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	27–FEB–10 20:31	022710B–1
	Lead	2.72	+/–10	J	2.5	10.0	SOL	P	27–FEB–10 20:31	022710B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	27–FEB–10 20:31	022710B–1
	Manganese	2.19	+/–10	J	2.0	10.0	SOL	P	27–FEB–10 20:31	022710B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	27–FEB–10 20:31	022710B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	27–FEB–10 20:31	022710B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	27–FEB–10 20:31	022710B–1
	Vanadium	2.14	+/–5	J	1.0	5.0	SOL	P	27–FEB–10 20:31	022710B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	27–FEB–10 20:31	022710B–1

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10-1747

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202042554								
	Aluminum	6490	ug/Kg	+/-19100	U	P	6490	19100
	Antimony	315	ug/Kg	+/-954	U	P	315	954
	Barium	95.4	ug/Kg	+/-477	U	P	95.4	477
	Calcium	7630	ug/Kg	+/-23900	U	P	7630	23900
	Copper	286	ug/Kg	+/-954	U	P	286	954
	Cobalt	143	ug/Kg	+/-477	U	P	143	477
	Chromium	143	ug/Kg	+/-477	U	P	143	477
	Cadmium	95.4	ug/Kg	+/-477	U	P	95.4	477
	Iron	7630	ug/Kg	+/-23900	U	P	7630	23900
	Zinc	315	ug/Kg	+/-954	U	P	315	954
	Vanadium	95.4	ug/Kg	+/-477	U	P	95.4	477
	Sodium	6680	ug/Kg	+/-23900	U	P	6680	23900
	Silver	95.4	ug/Kg	+/-477	U	P	95.4	477
	Potassium	6110	ug/Kg	+/-23900	U	P	6110	23900
	Manganese	191	ug/Kg	+/-954	U	P	191	954
	Magnesium	8110	ug/Kg	+/-28600	U	P	8110	28600
	Lead	239	ug/Kg	+/-954	U	P	239	954
1202042560								
	Arsenic	0.2	mg/kg	+/-1	U	MS	0.2	1
	Beryllium	0.02	mg/kg	+/-0.1	U	MS	0.02	0.1
	Nickel	0.098	mg/kg	+/-0.392	U	MS	0.098	0.392
	Thallium	0.06	mg/kg	+/-0.2	U	MS	0.06	0.2
	Uranium	0.0129	mg/kg	+/-0.0392	U	MS	0.0129	0.0392
	Selenium	0.5	mg/kg	+/-1	U	MS	0.5	1
1202053830								
	Mercury	3.82	ug/kg	+/-11.2	U	AV	3.82	11.2

METALS
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Interference Check Sample

SDG No: 10-1747

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	547000	ug/L	500000	ug/L	109	80.0 - 120.0	27-FEB-10 14:34	022710B-1
	Antimony	-3.42	ug/L					27-FEB-10 14:34	022710B-1
	Barium	7.6	ug/L					27-FEB-10 14:34	022710B-1
	Cadmium	6.59	ug/L					27-FEB-10 14:34	022710B-1
	Calcium	510000	ug/L	500000	ug/L	102	80.0 - 120.0	27-FEB-10 14:34	022710B-1
	Chromium	-1.93	ug/L					27-FEB-10 14:34	022710B-1
	Cobalt	3.23	ug/L					27-FEB-10 14:34	022710B-1
	Copper	-0.684	ug/L					27-FEB-10 14:34	022710B-1
	Iron	193000	ug/L	200000	ug/L	96.6	80.0 - 120.0	27-FEB-10 14:34	022710B-1
	Lead	6.79	ug/L					27-FEB-10 14:34	022710B-1
	Magnesium	514000	ug/L	500000	ug/L	103	80.0 - 120.0	27-FEB-10 14:34	022710B-1
	Manganese	-0.816	ug/L					27-FEB-10 14:34	022710B-1
	Potassium	-54.9	ug/L					27-FEB-10 14:34	022710B-1
	Silver	-0.0033	ug/L					27-FEB-10 14:34	022710B-1
	Sodium	21.6	ug/L					27-FEB-10 14:34	022710B-1
	Vanadium	3.83	ug/L					27-FEB-10 14:34	022710B-1
	Zinc	-0.081	ug/L					27-FEB-10 14:34	022710B-1
ICSAB01									
	Aluminum	527000	ug/L	500000	ug/L	105	80.0 - 120.0	27-FEB-10 14:37	022710B-1
	Antimony	530	ug/L	500	ug/L	106	80.0 - 120.0	27-FEB-10 14:37	022710B-1
	Barium	497	ug/L	500	ug/L	99.3	80.0 - 120.0	27-FEB-10 14:37	022710B-1
	Cadmium	472	ug/L	500	ug/L	94.5	80.0 - 120.0	27-FEB-10 14:37	022710B-1
	Calcium	493000	ug/L	500000	ug/L	98.5	80.0 - 120.0	27-FEB-10 14:37	022710B-1
	Chromium	484	ug/L	500	ug/L	96.8	80.0 - 120.0	27-FEB-10 14:37	022710B-1
	Cobalt	446	ug/L	500	ug/L	89.2	80.0 - 120.0	27-FEB-10 14:37	022710B-1
	Copper	546	ug/L	500	ug/L	109	80.0 - 120.0	27-FEB-10 14:37	022710B-1
	Iron	191000	ug/L	200000	ug/L	95.4	80.0 - 120.0	27-FEB-10 14:37	022710B-1
	Lead	494	ug/L	500	ug/L	98.7	80.0 - 120.0	27-FEB-10 14:37	022710B-1
	Magnesium	506000	ug/L	500000	ug/L	101	80.0 - 120.0	27-FEB-10 14:37	022710B-1

METALS
–4–
Interference Check Sample

SDG No: 10–1747

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	480	ug/L	500	ug/L	96	80.0 – 120.0	27–FEB–10 14:37	022710B–1
	Potassium	5190	ug/L	5000	ug/L	104	80.0 – 120.0	27–FEB–10 14:37	022710B–1
	Silver	260	ug/L	250	ug/L	104	80.0 – 120.0	27–FEB–10 14:37	022710B–1
	Sodium	5270	ug/L	5000	ug/L	105	80.0 – 120.0	27–FEB–10 14:37	022710B–1
	Vanadium	518	ug/L	500	ug/L	104	80.0 – 120.0	27–FEB–10 14:37	022710B–1
	Zinc	472	ug/L	500	ug/L	94.4	80.0 – 120.0	27–FEB–10 14:37	022710B–1

METALS
–4–
Interference Check Sample

SDG No: 10–1747

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Nickel	3.47	ug/L					10–MAR–10 20:22	100310–2
	Uranium	–0.034	ug/L					10–MAR–10 20:22	100310–2
ICSAB01									
	Nickel	23.0	ug/L	23.31	ug/L	98.9	80.0 – 120.0	10–MAR–10 20:24	100310–2
	Uranium	23.7	ug/L	20	ug/L	118	80.0 – 120.0	10–MAR–10 20:24	100310–2

METALS
–4–
Interference Check Sample

SDG No: 10–1747

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.384	ug/L					08–MAR–10 15:40	100308–3
	Beryllium	0.096	ug/L					08–MAR–10 15:40	100308–3
	Selenium	–1.33	ug/L					08–MAR–10 15:40	100308–3
	Thallium	0.007	ug/L					08–MAR–10 15:40	100308–3
ICSAB01									
	Arsenic	20.3	ug/L	20	ug/L	101	80.0 – 120.0	08–MAR–10 15:44	100308–3
	Beryllium	18.7	ug/L	20	ug/L	93.4	80.0 – 120.0	08–MAR–10 15:44	100308–3
	Selenium	18.7	ug/L	20	ug/L	93.4	80.0 – 120.0	08–MAR–10 15:44	100308–3
	Thallium	20.7	ug/L	20	ug/L	103	80.0 – 120.0	08–MAR–10 15:44	100308–3

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1747 **Client ID** RE15–10–7992S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 246837001 **Spike ID:** 1202042557

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Silver	ug/Kg	75–125	54500		501	J	55000	98		P
Sodium	ug/Kg	75–125	788000		214000		550000	104		P
Vanadium	ug/Kg	75–125	60500		5660		55000	99.7		P
Zinc	ug/Kg	75–125	98500		46800		55000	93.9		P
Aluminum	ug/Kg	75–125	3510000		1830000		550000	305	N	P
Antimony	ug/Kg	75–125	51900		1290		55000	92		P
Barium	ug/Kg	75–125	74700		21300		55000	97.1		P
Cadmium	ug/Kg	75–125	55300		886		55000	98.8		P
Calcium	ug/Kg	75–125	1010000		399000		550000	110		P
Chromium	ug/Kg	75–125	61400		8690		55000	95.9		P
Cobalt	ug/Kg	75–125	57700		5190		55000	95.5		P
Copper	ug/Kg	75–125	62800		6080		55000	103		P
Iron	ug/Kg		9780000		9330000		550000	81.7	N/A	P
Lead	ug/Kg	75–125	60900		5550		55000	101		P
Magnesium	ug/Kg	75–125	1050000		352000		550000	127	N	P
Manganese	ug/Kg		310000		272000		55000	68.1	N/A	P
Potassium	ug/Kg	75–125	1050000		408000		550000	117		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1747 **Client ID** RE15–10–7992SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 246837001 **Spike ID:** 1202042558

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Lead	ug/Kg	75–125	58900		5550		52500	102		P
Magnesium	ug/Kg	75–125	1000000		352000		525000	124		P
Manganese	ug/Kg		337000		272000		52500	124	N/A	P
Potassium	ug/Kg	75–125	1000000		408000		525000	113		P
Silver	ug/Kg	75–125	51800		501	J	52500	97.7		P
Sodium	ug/Kg	75–125	750000		214000		525000	102		P
Vanadium	ug/Kg	75–125	57700		5660		52500	99.1		P
Zinc	ug/Kg	75–125	94700		46800		52500	91.3		P
Aluminum	ug/Kg	75–125	3330000		1830000		525000	285	N	P
Antimony	ug/Kg	75–125	49700		1290		52500	92.1		P
Barium	ug/Kg	75–125	73900		21300		52500	100		P
Cadmium	ug/Kg	75–125	52600		886		52500	98.5		P
Calcium	ug/Kg	75–125	950000		399000		525000	105		P
Chromium	ug/Kg	75–125	58600		8690		52500	95		P
Cobalt	ug/Kg	75–125	55200		5190		52500	95.3		P
Copper	ug/Kg	75–125	59500		6080		52500	102		P
Iron	ug/Kg		9460000		9330000		525000	25.1	N/A	P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1747 **Client ID:** RE15–10–7992S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 246837001 **Spike ID:** 1202042563

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	7.85		0.757	J	8.58	82.6		MS
Beryllium	mg/kg	75–125	5.23		0.371		5.36	90.6		MS
Nickel	mg/kg	75–125	25.9		17		5.41	166	N	MS
Selenium	mg/kg	75–125	1.78		0.538	U	2.15	79.2		MS
Thallium	mg/kg	75–125	9.38		0.0646	U	10.7	86.9		MS
Uranium	mg/kg	75–125	6.17		0.548		5.41	104		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1747 **Client ID** RE15–10–7992SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 246837001 **Spike ID:** 1202042564

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	8.58		0.757	J	8.63	90.7		MS
Beryllium	mg/kg	75–125	5.76		0.371		5.39	99.9		MS
Nickel	mg/kg	75–125	23.2		17		5.28	118		MS
Selenium	mg/kg	75–125	1.92		0.538	U	2.16	85.2		MS
Thallium	mg/kg	75–125	10.4		0.0646	U	10.8	96		MS
Uranium	mg/kg	75–125	5.61		0.548		5.28	95.9		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1747 **Client ID:** RE46–10–12715S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 246881001 **Spike ID:** 1202053833

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	174		17		139	113		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1747 **Client ID:** RE46–10–12715SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 246881001 **Spike ID:** 1202053835

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	171		17		134	115		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1747

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7992D

Sample ID: 246837001 **Duplicate ID:** 1202042555 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	1830000		1590000		13.9		P
Antimony	ug/Kg	+/–1080	1290		357	U	352	*	P
Barium	ug/Kg	+/–20%	21300		18700		12.8		P
Cadmium	ug/Kg	+/–542	886		185	J	131	*	P
Calcium	ug/Kg	+/–20%	399000		350000		13.1		P
Chromium	ug/Kg	+/–20%	8690		5050		53.1	*	P
Cobalt	ug/Kg	+/–20%	5190		4290		19.1		P
Copper	ug/Kg	+/–1080	6080		3900		43.6	*	P
Iron	ug/Kg	+/–20%	9330000		8450000		9.85		P
Lead	ug/Kg	+/–1080	5550		4680		16.9		P
Magnesium	ug/Kg	+/–20%	352000		292000		18.6		P
Manganese	ug/Kg	+/–20%	272000		261000		4.34		P
Potassium	ug/Kg	+/–20%	408000		373000		9.07		P
Silver	ug/Kg	+/–542	501	J	141	J	112		P
Sodium	ug/Kg	+/–20%	214000		212000		1.05		P
Vanadium	ug/Kg	+/–20%	5660		4180		30	*	P
Zinc	ug/Kg	+/–20%	46800		39000		18.1		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1747

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7992SD

Sample ID: 1202042557 **Duplicate ID:** 1202042558 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	3510000		3330000		5.23		P
Antimony	ug/Kg	+/–20	51900		49700		4.43		P
Barium	ug/Kg	+/–20	74700		73900		1.06		P
Cadmium	ug/Kg	+/–20	55300		52600		4.97		P
Calcium	ug/Kg	+/–20	1010000		950000		5.75		P
Chromium	ug/Kg	+/–20	61400		58600		4.76		P
Cobalt	ug/Kg	+/–20	57700		55200		4.38		P
Copper	ug/Kg	+/–20	62800		59500		5.39		P
Iron	ug/Kg	+/–20	9780000		9460000		3.3		P
Lead	ug/Kg	+/–20	60900		58900		3.41		P
Magnesium	ug/Kg	+/–20	1050000		1000000		4.79		P
Manganese	ug/Kg	+/–20	310000		337000		8.52		P
Potassium	ug/Kg	+/–20	1050000		1000000		4.94		P
Silver	ug/Kg	+/–20	54500		51800		5.03		P
Sodium	ug/Kg	+/–20	788000		750000		4.91		P
Vanadium	ug/Kg	+/–20	60500		57700		4.82		P
Zinc	ug/Kg	+/–20	98500		94700		3.88		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1747

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7992D

Sample ID: 246837001 **Duplicate ID:** 1202042561 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.05	0.757	J	0.713	J	6.01		MS
Beryllium	mg/kg	+/–.105	0.371		0.357		3.94		MS
Nickel	mg/kg	+/–20%	17		21.2		22.1	*	MS
Selenium	mg/kg		0.538	U	0.527	U			MS
Thallium	mg/kg		0.0646	U	0.0632	U			MS
Uranium	mg/kg	+/–20%	0.548		0.637		14.9		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1747

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7992SD

Sample ID: 1202042563 **Duplicate ID:** 1202042564 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	7.85		8.58		8.95		MS
Beryllium	mg/kg	+/–20	5.23		5.76		9.65		MS
Nickel	mg/kg	+/–20	25.9		23.2		11.2		MS
Selenium	mg/kg	+/–20	1.78		1.92		7.52		MS
Thallium	mg/kg	+/–20	9.38		10.4		10.4		MS
Uranium	mg/kg	+/–20	6.17		5.61		9.42		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1747

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12715D

Sample ID: 246881001 **Duplicate ID:** 1202053832 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–14.7	17		23.3		31.5		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1747

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12715SD

Sample ID: 1202053833 **Duplicate ID:** 1202053835 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	174		171		1.95		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1747

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202042559								
	Aluminum	ug/Kg	10500000	9380000		89.4	56-144	P
	Antimony	ug/Kg	173000	148000		85.3	71-130	P
	Barium	ug/Kg	198000	204000		103	80-120	P
	Cadmium	ug/Kg	60700	61900		102	81-120	P
	Calcium	ug/Kg	9870000	10500000		106	83-117	P
	Chromium	ug/Kg	236000	248000		105	80-120	P
	Cobalt	ug/Kg	91200	94400		103	81-120	P
	Copper	ug/Kg	174000	195000		112	81-118	P
	Iron	ug/Kg	18000000	19200000		107	51-149	P
	Lead	ug/Kg	86000	89300		104	79-121	P
	Magnesium	ug/Kg	4000000	3990000		99.8	79-122	P
	Manganese	ug/Kg	558000	564000		101	81-119	P
	Potassium	ug/Kg	4300000	4200000		97.7	74-127	P
	Silver	ug/Kg	30100	33000		110	66-134	P
	Sodium	ug/Kg	1020000	1050000		103	74-127	P
	Vanadium	ug/Kg	115000	131000		114	79-121	P
	Zinc	ug/Kg	594000	609000		102	80-121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1747

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

SDG NO. 10–1747

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202042565								
	Arsenic	mg/kg	104	107		103	78–123	MS
	Beryllium	mg/kg	77.6	85.4		110	84–116	MS
	Nickel	mg/kg	134	152		114	78–123	MS
	Selenium	mg/kg	286	302		106	77–123	MS
	Thallium	mg/kg	121	139		115	78–122	MS
	Uranium	mg/kg	2.13	1.84		86.5	73–127	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1747

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202053831								
	Mercury	ug/kg	5150	6240		121	71.6-128.3	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1747 **Client ID** RE15–10–7992L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246837001 **Serial Dilution ID:** 1202042556

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	16700		17000		1.5		10	P
Antimony	11.8		16.5	U	100			P
Barium	195		195		0		10	P
Cadmium	8.1		15.9	J	95.7			P
Calcium	3650		3680		.685			P
Chromium	79.5		73		8.18		10	P
Cobalt	47.5		54		13.7			P
Copper	55.6		52		6.47			P
Iron	85300		87000		1.99		10	P
Lead	50.7		58.5		15.4			P
Magnesium	3220		3340		3.73			P
Manganese	2490		2570		3.21		10	P
Potassium	3730		3870		3.62		10	P
Silver	4.58	J	9.8	J	114			P
Sodium	1960		1910		2.81			P
Vanadium	51.7		57.5		11.2	E	10	P
Zinc	428		394		7.94		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1747 **Client ID** RE15–10–7992L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246837001 **Serial Dilution ID:** 1202042562

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	3.52	J	5	U	100			MS
Beryllium	1.72		1.79	J	3.78			MS
Nickel	80.7		84.5		4.71		10	MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS
Uranium	2.61		2.45		6.13			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1747 **Client ID** RE46–10–12715L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246881001 **Serial Dilution ID:** 1202053834

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.242		.34	U	100			AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-1747 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 952944							
1202042554	MB for batch 952944	MB	S	22-FEB-10	.524g	50mL	
1202042559	LCS for batch 952944	LCS	S	22-FEB-10	.511g	50mL	
1202042557	RE15-10-7992S	MS	S	22-FEB-10	.5g	50mL	
1202042558	RE15-10-7992SD	MSD	S	22-FEB-10	.524g	50mL	
1202042555	RE15-10-7992D	DUP	S	22-FEB-10	.508g	50mL	
246837001	RE15-10-7992	SAMPLE	S	22-FEB-10	.503g	50mL	
246837002	RE15-10-7991	SAMPLE	S	22-FEB-10	.545g	50mL	
246837003	RE15-10-7990	SAMPLE	S	22-FEB-10	.504g	50mL	
246837004	RE15-10-7987	SAMPLE	S	22-FEB-10	.556g	50mL	
246837005	RE15-10-7988	SAMPLE	S	22-FEB-10	.501g	50mL	
246837006	RE15-10-7989	SAMPLE	S	22-FEB-10	.557g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1747 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 952946							
1202042560	MB for batch 952946	MB	S	22-FEB-10	.5g	50mL	
1202042565	LCS for batch 952946	LCS	S	22-FEB-10	.513g	50mL	
1202042563	RE15-10-7992S	MS	S	22-FEB-10	.513g	50mL	
1202042564	RE15-10-7992SD	MSD	S	22-FEB-10	.51g	50mL	
1202042561	RE15-10-7992D	DUP	S	22-FEB-10	.522g	50mL	
246837001	RE15-10-7992	SAMPLE	S	22-FEB-10	.511g	50mL	
246837002	RE15-10-7991	SAMPLE	S	22-FEB-10	.501g	50mL	
246837003	RE15-10-7990	SAMPLE	S	22-FEB-10	.501g	50mL	
246837004	RE15-10-7987	SAMPLE	S	22-FEB-10	.546g	50mL	
246837005	RE15-10-7988	SAMPLE	S	22-FEB-10	.502g	50mL	
246837006	RE15-10-7989	SAMPLE	S	22-FEB-10	.582g	50mL	
Batch Number 963318							
1202042560	MB for batch 952946	MB	S	10-MAR-10	.51g	50mL	
1202042565	LCS for batch 952946	LCS	S	10-MAR-10	.511g	50mL	
1202042563	RE15-10-7992S	MS	S	10-MAR-10	.509g	50mL	
1202042564	RE15-10-7992SD	MSD	S	10-MAR-10	.521g	50mL	
1202042561	RE15-10-7992D	DUP	S	10-MAR-10	.51g	50mL	
246837001	RE15-10-7992	SAMPLE	S	10-MAR-10	.524g	50mL	
246837002	RE15-10-7991	SAMPLE	S	10-MAR-10	.533g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1747 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
246837003	RE15-10-7990	SAMPLE	S	10-MAR-10	.526g	50mL	
246837004	RE15-10-7987	SAMPLE	S	10-MAR-10	.543g	50mL	
246837005	RE15-10-7988	SAMPLE	S	10-MAR-10	.504g	50mL	
246837006	RE15-10-7989	SAMPLE	S	10-MAR-10	.568g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1747 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	957796						
1202053830	MB for batch 957796	MB	S	25-FEB-10	.534g	30mL	
1202053831	LCS for batch 957796	LCS	S	25-FEB-10	.201g	30mL	
1202053833	RE46-10-12715S	MS	S	25-FEB-10	.533g	30mL	
1202053835	RE46-10-12715SD	MSD	S	25-FEB-10	.554g	30mL	
1202053832	RE46-10-12715D	DUP	S	25-FEB-10	.502g	30mL	
246837001	RE15-10-7992	SAMPLE	S	25-FEB-10	.516g	30mL	
246837002	RE15-10-7991	SAMPLE	S	25-FEB-10	.507g	30mL	
246837003	RE15-10-7990	SAMPLE	S	25-FEB-10	.535g	30mL	
246837004	RE15-10-7987	SAMPLE	S	25-FEB-10	.559g	30mL	
246837005	RE15-10-7988	SAMPLE	S	25-FEB-10	.539g	30mL	
246837006	RE15-10-7989	SAMPLE	S	25-FEB-10	.549g	30mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 08-MAR-10 **End Date:** 08-MAR-10

Client Sdg: 10-1747
Method MS
Data File: 100308-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	15:19			X		X													X			X			
S10	1	15:22			X		X													X			X			
S100	1	15:26			X		X													X			X			
ICV01	1	15:29			X		X													X			X			
ICB01	1	15:33			X		X													X			X			
CRDL01	1	15:37			X		X													X			X			
ICSA01	1	15:40			X		X													X			X			
ICSAB01	1	15:44			X		X													X			X			
CCV01	1	15:47			X		X													X			X			
CCB01	1	15:51			X		X													X			X			
ZZZZZZ	2	15:55																								
ZZZZZZ	40	15:58																								
ZZZZZZ	2	16:02																								
ZZZZZZ	2	16:06																								
ZZZZZZ	2	16:09																								
ZZZZZZ	2	16:13																								
ZZZZZZ	10	16:17																								
CCV02	1	16:20			X		X													X			X			
CCB02	1	16:24			X		X													X			X			
ZZZZZZ	2	16:28																								
ZZZZZZ	2	16:31																								
ZZZZZZ	2	16:35																								
ZZZZZZ	2	16:38																								
CCV03	1	16:42			X		X													X			X			
CCB03	1	16:46			X		X													X			X			
ZZZZZZ	2	16:49																								
ZZZZZZ	40	16:53																								
ZZZZZZ	2	16:57																								
ZZZZZZ	2	17:00																								
ZZZZZZ	2	17:04																								
ZZZZZZ	2	17:08																								
ZZZZZZ	10	17:11																								
CCV04	1	17:15			X		X													X			X			
CCB04	1	17:19			X		X													X			X			
ZZZZZZ	2	17:22																								
ZZZZZZ	2	17:26																								
ZZZZZZ	2	17:30																								
ZZZZZZ	2	17:33																								
ZZZZZZ	2	17:37																								
ZZZZZZ	2	17:41																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	2	17:44																								
CCV05	1	17:48			X		X												X			X			
CCB05	1	17:51			X		X												X			X			
1202042560	2	17:55			X		X												X			X			
1202042565	40	17:59			X		X												X			X			
246837001	2	18:03			X		X												X			X			
1202042561	2	18:06			X		X												X			X			
1202042563	2	18:10			X		X												X			X			
1202042564	2	18:14			X		X												X			X			
1202042562	10	18:17			X		X												X			X			
246837002	2	18:21			X		X												X			X			
CCV06	1	18:25			X		X												X			X			
CCB06	1	18:28			X		X												X			X			
246837003	2	18:32			X		X												X			X			
246837004	2	18:36			X		X												X			X			
246837005	2	18:39			X		X												X			X			
246837006	2	18:43			X		X												X			X			
ZZZZZZ	2	18:47																							
ZZZZZZ	2	18:50																							
ZZZZZZ	2	18:54																							
CCV07	1	18:58			X		X												X			X			
CCB07	1	19:01			X		X												X			X			

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 26–FEB–10 **End Date:** 26–FEB–10

Client Sdg: 10–1747
Method AV
Data File: 022610S1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:58															X									
S0.2	1	10:00															X									
S0.5	1	10:02															X									
S2.0	1	10:04															X									
S5.0	1	10:06															X									
S10	1	10:08															X									
ICV01	1	10:10															X									
ICB01	1	10:12															X									
CRDL01	1	10:14															X									
CCV01	1	10:16															X									
CCB01	1	10:18															X									
ZZZZZZ	1	10:20																								
ZZZZZZ	10	10:22																								
ZZZZZZ	1	10:24																								
ZZZZZZ	1	10:26																								
ZZZZZZ	1	10:28																								
ZZZZZZ	1	10:30																								
ZZZZZZ	1	10:32																								
ZZZZZZ	5	10:34																								
ZZZZZZ	1	10:36																								
ZZZZZZ	1	10:38																								
CCV02	1	10:40															X									
CCB02	1	10:42															X									
ZZZZZZ	1	10:44																								
ZZZZZZ	1	10:46																								
ZZZZZZ	1	10:48																								
ZZZZZZ	1	10:50																								
ZZZZZZ	1	10:52																								
ZZZZZZ	1	10:54																								
ZZZZZZ	1	10:56																								
ZZZZZZ	1	10:58																								
1202053830	1	11:00															X									
1202053831	10	11:02															X									
CCV03	1	11:04															X									
CCB03	1	11:06															X									
246837001	1	11:08															X									
246837002	1	11:10															X									
246837003	1	11:12															X									
246837004	1	11:14															X									
246837005	1	11:16															X									

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
246837006	1	11:18														X									
ZZZZZZ	1	11:20																							
1202053832	1	11:22														X									
1202053833	1	11:24														X									
1202053835	1	11:26														X									
CCV04	1	11:28														X									
CCB04	1	11:30														X									
1202053834	5	11:32														X									
ZZZZZZ	1	11:34																							
ZZZZZZ	1	11:36																							
ZZZZZZ	1	11:38																							
ZZZZZZ	1	11:40																							
ZZZZZZ	1	11:42																							
ZZZZZZ	1	11:44																							
ZZZZZZ	1	11:46																							
ZZZZZZ	1	11:48																							
ZZZZZZ	1	11:50																							
CCV05	1	11:52														X									
CCB05	1	11:54														X									

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 10–MAR–10 **End Date:** 10–MAR–10

Client Sdg: 10–1747
Method MS
Data File: 100310–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	20:08																X						X		
S10	1	20:11																X						X		
S100	1	20:13																X						X		
ICV01	1	20:15																X						X		
ICB01	1	20:17																X						X		
CRDL01	1	20:20																X						X		
ICSA01	1	20:22																X						X		
ICSAB01	1	20:24																X						X		
CCV01	1	20:27																X						X		
CCB01	1	20:29																X						X		
1202042560	2	20:31																X						X		
1202042565	40	20:33																X						X		
246837001	2	20:36																X						X		
1202042561	2	20:38																X						X		
ZZZZZZ	2	20:40																								
1202042563	2	20:46																X						X		
1202042564	2	20:49																X						X		
1202042562	10	20:51																X						X		
CCV02	1	20:53																X						X		
CCB02	1	20:56																X						X		
246837002	2	20:58																X						X		
246837003	2	21:00																X						X		
246837004	2	21:03																X						X		
246837005	2	21:05																X						X		
246837006	2	21:07																X						X		
ZZZZZZ	2	21:10																								
ZZZZZZ	2	21:12																								
ZZZZZZ	2	21:14																								
CCV03	1	21:17																X						X		
CCB03	1	21:19																X						X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 27–FEB–10 **End Date:** 27–FEB–10

Client Sdg: 10–1747
Method P
Data File: 022710B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	14:08		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	14:11	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	14:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	14:18	X						X				X		X							X				
ICV01	1	14:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	14:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	14:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	14:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	14:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	14:40	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	14:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	14:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	14:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	15:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	15:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV03	1	15:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	15:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	15:44																								
ZZZZZZ	1	15:48																								
ZZZZZZ	1	15:51																								
ZZZZZZ	1	15:55																								
ZZZZZZ	1	15:58																								
ZZZZZZ	1	16:02																								
ZZZZZZ	5	16:05																								
ZZZZZZ	1	16:09																								
ZZZZZZ	1	16:12																								
ZZZZZZ	1	16:16																								
CCV04	1	16:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	16:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	16:27																								
ZZZZZZ	1	16:31																								
ZZZZZZ	1	16:34																								
ZZZZZZ	1	16:38																								
ZZZZZZ	1	16:42																								
ZZZZZZ	1	16:45																								
ZZZZZZ	1	16:49																								
ZZZZZZ	1	16:52																								
ZZZZZZ	1	16:56																								
ZZZZZZ	1	17:00																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCV05	1	17:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	17:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV06	1	17:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	17:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:46																								
ZZZZZZ	1	17:50																								
ZZZZZZ	1	17:52																								
ZZZZZZ	1	17:56																								
ZZZZZZ	1	18:00																								
ZZZZZZ	1	18:03																								
ZZZZZZ	5	18:06																								
ZZZZZZ	1	18:10																								
CCV07	1	18:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	18:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:21																								
ZZZZZZ	1	18:25																								
ZZZZZZ	1	18:28																								
ZZZZZZ	1	18:32																								
ZZZZZZ	1	18:36																								
ZZZZZZ	1	18:39																								
ZZZZZZ	1	18:43																								
ZZZZZZ	1	18:47																								
CCV08	1	18:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB08	1	18:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:57																								
ZZZZZZ	1	19:01																								
ZZZZZZ	1	19:05																								
ZZZZZZ	1	19:08																								
ZZZZZZ	1	19:12																								
ZZZZZZ	1	19:16																								
ZZZZZZ	1	19:19																								
CCV09	1	19:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	19:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202042554	1	19:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202042559	1	19:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246837001	1	19:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202042555	1	19:40	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202042557	1	19:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202042558	1	19:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202042556	5	19:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
CCV10	1	19:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	19:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246837002	1	20:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246837003	1	20:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246837004	1	20:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246837005	1	20:13	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246837006	1	20:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:20																								
ZZZZZZ	1	20:24																								
CCV11	1	20:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	20:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1747

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1747

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1747

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1747
Contract: LANL01004
Instrument: OPTIMA1
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1747

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1747

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
-12-
Linear Ranges

SDG NO. 10-1747

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

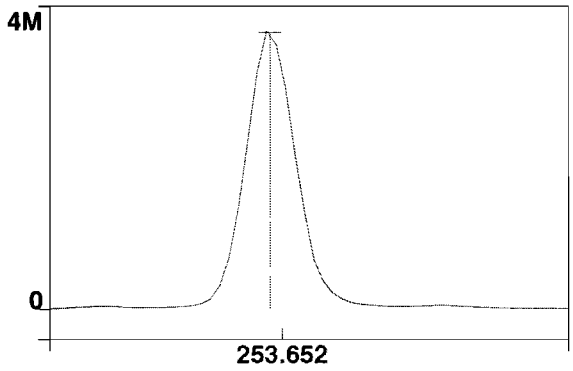
Raw Data

Method: Hg_ReAlign
Result: 031110

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1



Intensity: 3650976.5 cps
Conc:

1

Reprocessing Begun
Logged In Analyst: optima Technique: ICP Continuous

Results Data Set (original): 022710A
Results Library (original): c:\pe\optima1\Results\Results.mdb
Results Data Set (reprocessed): 022710B
Results Library (reprocessed): c:\pe\optima1\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 8
Sample ID: S0 Date Collected: 2/27/2010 14:04:49
Analyst: Data Type: Reprocessed on 2/27/2010 15:11:16
Logged In Analyst (Original) : optima
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1594325.1	1594325.1	100.12	%	14:06:45
1	Sc RADIAL	99808.7	99808.7	101	%	14:05:23
1	Y 371.029	1113363.7	1113363.7	100.06	%	14:06:45
1	Ag 328.068†	198.0	197.8	[0.00]	µg/L	14:06:50
1	Al 396.153Radial†	-154.9	-153.5	[0.00]	µg/L	14:05:23
1	As 188.979†	1.6	1.6	[0.00]	µg/L	14:07:11
1	B 249.677†	1351.2	1349.6	[0.00]	µg/L	14:06:50
1	Ba 233.527†	-30.9	-30.9	[0.00]	µg/L	14:07:11
1	Be 313.107†	-2267.9	-2265.2	[0.00]	µg/L	14:06:50
1	Ca 317.933Radial†	362.5	359.1	[0.00]	µg/L	14:05:43
1	Cd 226.502†	-145.9	-145.8	[0.00]	µg/L	14:07:11
1	Co 228.616†	16.1	16.1	[0.00]	µg/L	14:07:11
1	Cr 267.716†	81.3	81.2	[0.00]	µg/L	14:07:11
1	Cu 324.752†	2648.4	2645.2	[0.00]	µg/L	14:06:50
1	Fe 238.204 Radial†	24.7	24.5	[0.00]	µg/L	14:05:43
1	K 766.490 Radial†	191.8	190.0	[0.00]	µg/L	14:05:23
1	Mg 279.077 IEC†	6.5	6.5	[0.00]	µg/L	14:05:43
1	Mn 257.610†	-555.7	-555.0	[0.00]	µg/L	14:07:11
1	Mo 202.031†	3.2	3.2	[0.00]	µg/L	14:07:11
1	Na 589.592 Radial†	247.7	245.4	[0.00]	µg/L	14:05:23
1	Ni 231.604†	293.6	293.2	[0.00]	µg/L	14:07:11
1	P 214.914†	27.2	27.2	[0.00]	µg/L	14:07:11
1	Pb 220.353†	38.0	37.9	[0.00]	µg/L	14:07:11
1	S 181.975 Axial†	11.3	11.3	[0.00]	µg/L	14:07:11
1	Sb 206.836†	20.1	20.1	[0.00]	µg/L	14:07:11
1	Se 196.026†	15.4	15.4	[0.00]	µg/L	14:07:11
1	SiO2†	1364.4	1362.7	[0.00]	µg/L	14:06:50
1	Si 251.611†	346.0	345.6	[0.00]	µg/L	14:07:11
1	Sn 189.927†	4.4	4.4	[0.00]	µg/L	14:07:11
1	Sr 421.552†	137.3	136.0	[0.00]	µg/L	14:05:23
1	Ti 334.940†	-2.5	-2.5	[0.00]	µg/L	14:06:50
1	Tl 190.801†	-29.6	-29.6	[0.00]	µg/L	14:07:11
1	U 409.014†	159.8	159.6	[0.00]	µg/L	14:06:50
1	V 292.402†	-170.7	-170.5	[0.00]	µg/L	14:06:50
1	Zn 213.857†	523.8	523.2	[0.00]	µg/L	14:07:11
2	Sc 361.383	1590663.1	1590663.1	99.890	%	14:07:16
2	Sc RADIAL	98568.0	98568.0	99.7	%	14:05:49
2	Y 371.029	1111677.5	1111677.5	99.913	%	14:07:16
2	Ag 328.068†	261.2	261.5	[0.00]	µg/L	14:07:22
2	Al 396.153Radial†	-186.6	-187.2	[0.00]	µg/L	14:05:49
2	As 188.979†	1.5	1.5	[0.00]	µg/L	14:07:43
2	B 249.677†	1339.2	1340.7	[0.00]	µg/L	14:07:22
2	Ba 233.527†	-22.4	-22.4	[0.00]	µg/L	14:07:43
2	Be 313.107†	-2229.8	-2232.3	[0.00]	µg/L	14:07:22
2	Ca 317.933Radial†	365.5	366.6	[0.00]	µg/L	14:06:09
2	Cd 226.502†	-142.4	-142.5	[0.00]	µg/L	14:07:43
2	Co 228.616†	16.0	16.0	[0.00]	µg/L	14:07:43
2	Cr 267.716†	71.1	71.2	[0.00]	µg/L	14:07:43
2	Cu 324.752†	2653.5	2656.4	[0.00]	µg/L	14:07:22

2	Fe 238.204 Radial†	27.4	27.5	[0.00]	µg/L	14:06:09
2	K 766.490 Radial†	269.8	270.6	[0.00]	µg/L	14:05:49
2	Mg 279.077 IEC†	9.5	9.5	[0.00]	µg/L	14:06:09
2	Mn 257.610†	-571.6	-572.2	[0.00]	µg/L	14:07:43
2	Mo 202.031†	6.3	6.3	[0.00]	µg/L	14:07:43
2	Na 589.592 Radial†	212.2	212.8	[0.00]	µg/L	14:05:49
2	Ni 231.604†	281.2	281.5	[0.00]	µg/L	14:07:43
2	P 214.914†	23.1	23.1	[0.00]	µg/L	14:07:43
2	Pb 220.353†	35.8	35.8	[0.00]	µg/L	14:07:43
2	S 181.975 Axial†	13.1	13.2	[0.00]	µg/L	14:07:43
2	Sb 206.836†	22.9	22.9	[0.00]	µg/L	14:07:43
2	Se 196.026†	13.2	13.2	[0.00]	µg/L	14:07:43
2	SiO2†	1371.6	1373.1	[0.00]	µg/L	14:07:22
2	Si 251.611†	353.6	354.0	[0.00]	µg/L	14:07:43
2	Sn 189.927†	7.7	7.7	[0.00]	µg/L	14:07:43
2	Sr 421.552†	159.8	160.3	[0.00]	µg/L	14:05:49
2	Ti 334.940†	-1.9	-1.9	[0.00]	µg/L	14:07:22
2	Tl 190.801†	-21.4	-21.4	[0.00]	µg/L	14:07:43
2	U 409.014†	78.5	78.6	[0.00]	µg/L	14:07:22
2	V 292.402†	-185.9	-186.1	[0.00]	µg/L	14:07:22
2	Zn 213.857†	531.5	532.1	[0.00]	µg/L	14:07:43
3	Sc 361.383	1592233.0	1592233.0	99.989	%	14:07:48
3	Sc RADIAL	98256.6	98256.6	99.4	%	14:06:15
3	Y 371.029	1112901.2	1112901.2	100.02	%	14:07:48
3	Ag 328.068†	206.1	206.1	[0.00]	µg/L	14:07:54
3	Al 396.153Radial†	-177.0	-178.1	[0.00]	µg/L	14:06:15
3	As 188.979†	1.9	1.9	[0.00]	µg/L	14:08:14
3	B 249.677†	1324.4	1324.5	[0.00]	µg/L	14:07:54
3	Ba 233.527†	-29.8	-29.8	[0.00]	µg/L	14:08:14
3	Be 313.107†	-2174.4	-2174.7	[0.00]	µg/L	14:07:54
3	Ca 317.933Radial†	360.2	362.4	[0.00]	µg/L	14:06:35
3	Cd 226.502†	-137.4	-137.4	[0.00]	µg/L	14:08:14
3	Co 228.616†	9.6	9.6	[0.00]	µg/L	14:08:14
3	Cr 267.716†	84.7	84.8	[0.00]	µg/L	14:08:14
3	Cu 324.752†	2683.3	2683.6	[0.00]	µg/L	14:07:54
3	Fe 238.204 Radial†	24.1	24.3	[0.00]	µg/L	14:06:35
3	K 766.490 Radial†	218.1	219.4	[0.00]	µg/L	14:06:15
3	Mg 279.077 IEC†	8.9	9.0	[0.00]	µg/L	14:06:35
3	Mn 257.610†	-562.1	-562.2	[0.00]	µg/L	14:08:14
3	Mo 202.031†	4.0	4.0	[0.00]	µg/L	14:08:14
3	Na 589.592 Radial†	279.4	281.2	[0.00]	µg/L	14:06:15
3	Ni 231.604†	294.3	294.4	[0.00]	µg/L	14:08:14
3	P 214.914†	19.4	19.4	[0.00]	µg/L	14:08:14
3	Pb 220.353†	49.1	49.1	[0.00]	µg/L	14:08:14
3	S 181.975 Axial†	16.9	16.9	[0.00]	µg/L	14:08:14
3	Sb 206.836†	19.2	19.2	[0.00]	µg/L	14:08:14
3	Se 196.026†	16.7	16.7	[0.00]	µg/L	14:08:14
3	SiO2†	1381.2	1381.4	[0.00]	µg/L	14:07:54
3	Si 251.611†	367.6	367.6	[0.00]	µg/L	14:08:14
3	Sn 189.927†	13.2	13.2	[0.00]	µg/L	14:08:14
3	Sr 421.552†	141.0	141.9	[0.00]	µg/L	14:06:15
3	Ti 334.940†	45.7	45.7	[0.00]	µg/L	14:07:54
3	Tl 190.801†	-27.8	-27.8	[0.00]	µg/L	14:08:14
3	U 409.014†	106.0	106.0	[0.00]	µg/L	14:07:54
3	V 292.402†	-143.2	-143.2	[0.00]	µg/L	14:07:54
3	Zn 213.857†	529.2	529.2	[0.00]	µg/L	14:08:14

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1592407.1	1837.19	0.12%	100.00	%
Sc RADIAL	98877.8	821.09	0.83%	100	%
Y 371.029	1112647.5	871.27	0.08%	100.00	%
Ag 328.068†	221.8	34.64	15.62%	[0.00]	µg/L
Al 396.153Radial†	-172.9	17.44	10.09%	[0.00]	µg/L
As 188.979†	1.6	0.21	12.83%	[0.00]	µg/L
B 249.677†	1338.3	12.72	0.95%	[0.00]	µg/L
Ba 233.527†	-27.7	4.62	16.67%	[0.00]	µg/L
Be 313.107†	-2224.0	45.80	2.06%	[0.00]	µg/L
Ca 317.933Radial†	362.7	3.76	1.04%	[0.00]	µg/L

Cd 226.502†	-141.9	4.19	2.95%	[0.00]	µg/L
Co 228.616†	13.9	3.69	26.55%	[0.00]	µg/L
Cr 267.716†	79.0	7.03	8.89%	[0.00]	µg/L
Cu 324.752†	2661.7	19.74	0.74%	[0.00]	µg/L
Fe 238.204 Radial†	25.4	1.81	7.12%	[0.00]	µg/L
K 766.490 Radial†	226.7	40.82	18.01%	[0.00]	µg/L
Mg 279.077 IEC†	8.3	1.63	19.61%	[0.00]	µg/L
Mn 257.610†	-563.1	8.63	1.53%	[0.00]	µg/L
Mo 202.031†	4.5	1.65	36.52%	[0.00]	µg/L
Na 589.592 Radial†	246.5	34.17	13.86%	[0.00]	µg/L
Ni 231.604†	289.7	7.10	2.45%	[0.00]	µg/L
P 214.914†	23.2	3.86	16.63%	[0.00]	µg/L
Pb 220.353†	40.9	7.13	17.41%	[0.00]	µg/L
S 181.975 Axial†	13.8	2.83	20.55%	[0.00]	µg/L
Sb 206.836†	20.8	1.93	9.28%	[0.00]	µg/L
Se 196.026†	15.1	1.79	11.85%	[0.00]	µg/L
SiO2†	1372.4	9.35	0.68%	[0.00]	µg/L
Si 251.611†	355.7	11.13	3.13%	[0.00]	µg/L
Sn 189.927†	8.4	4.42	52.32%	[0.00]	µg/L
Sr 421.552†	146.1	12.68	8.68%	[0.00]	µg/L
Ti 334.940†	13.8	27.64	200.97%	[0.00]	µg/L
Tl 190.801†	-26.3	4.29	16.34%	[0.00]	µg/L
U 409.014†	114.7	41.18	35.90%	[0.00]	µg/L
V 292.402†	-166.6	21.73	13.04%	[0.00]	µg/L
Zn 213.857†	528.1	4.54	0.86%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/27/2010 14:08:23
Data Type: Reprocessed on 2/27/2010 15:11:58

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1595168.5	1595168.5	100.17	%	14:09:20
1	Sc RADIAL	101311.9	101311.9	102	%	14:08:59
1	Y 371.029	1117068.2	1117068.2	100.40	%	14:09:20
1	Ag 328.068†	11851.9	11609.6	[100]	µg/L	14:09:26
1	As 188.979†	58.3	56.6	[100]	µg/L	14:09:46
1	B 249.677†	3194.3	1850.4	[100]	µg/L	14:09:26
1	Ba 233.527†	3858.8	3879.8	[100]	µg/L	14:09:26
1	Be 313.107†	134123.2	136115.0	[100]	µg/L	14:09:20
1	Cd 226.502†	3256.1	3392.4	[100]	µg/L	14:09:26
1	Co 228.616†	1928.6	1911.4	[100]	µg/L	14:09:46
1	Cr 267.716†	3973.3	3887.4	[100]	µg/L	14:09:26
1	Cu 324.752†	16875.9	14185.0	[100]	µg/L	14:09:26
1	K 766.490 Radial†	1977.8	1703.6	[1000]	µg/L	14:08:59
1	Mn 257.610†	27259.7	27775.7	[100]	µg/L	14:09:26
1	Mo 202.031†	896.0	890.0	[100]	µg/L	14:09:46
1	Ni 231.604†	1780.3	1487.5	[100]	µg/L	14:09:46
1	P 214.914†	237.6	213.9	[500]	µg/L	14:09:46
1	Pb 220.353†	358.1	316.5	[100]	µg/L	14:09:46
1	S 181.975 Axial†	67.0	53.1	[200]	µg/L	14:09:46
1	Sb 206.836†	106.0	85.0	[100]	µg/L	14:09:46
1	Se 196.026†	87.2	72.0	[100]	µg/L	14:09:46
1	SiO2†	6108.2	4725.2	[1069.5]	µg/L	14:09:26
1	Si 251.611†	6287.4	5920.8	[500]	µg/L	14:09:26
1	Sn 189.927†	225.5	216.7	[100]	µg/L	14:09:46
1	Sr 421.552†	20395.5	19759.4	[100]	µg/L	14:08:59
1	Ti 334.940†	36746.1	36668.7	[100]	µg/L	14:09:26
1	Tl 190.801†	64.0	90.2	[100]	µg/L	14:09:46
1	U 409.014†	1364.8	1247.8	[100]	µg/L	14:09:26
1	V 292.402†	7691.2	7844.5	[100]	µg/L	14:09:26
1	Zn 213.857†	4251.3	3715.8	[100]	µg/L	14:09:26
2	Sc 361.383	1599518.0	1599518.0	100.45	%	14:09:53
2	Sc RADIAL	100980.5	100980.5	102	%	14:09:04
2	Y 371.029	1118064.4	1118064.4	100.49	%	14:09:53
2	Ag 328.068†	11618.0	11344.6	[100]	µg/L	14:09:58
2	As 188.979†	58.5	56.6	[100]	µg/L	14:10:19
2	B 249.677†	3160.5	1808.2	[100]	µg/L	14:09:58
2	Ba 233.527†	3804.7	3815.5	[100]	µg/L	14:09:58
2	Be 313.107†	134001.4	135629.8	[100]	µg/L	14:09:53
2	Cd 226.502†	3234.8	3362.3	[100]	µg/L	14:09:58
2	Co 228.616†	1920.5	1898.0	[100]	µg/L	14:10:19
2	Cr 267.716†	3934.4	3837.9	[100]	µg/L	14:09:58
2	Cu 324.752†	16610.9	13875.4	[100]	µg/L	14:09:58
2	K 766.490 Radial†	1983.8	1715.8	[1000]	µg/L	14:09:04
2	Mn 257.610†	26848.6	27292.4	[100]	µg/L	14:09:58
2	Mo 202.031†	893.1	884.6	[100]	µg/L	14:10:19
2	Ni 231.604†	1771.7	1474.1	[100]	µg/L	14:10:19
2	P 214.914†	234.7	210.4	[500]	µg/L	14:10:19
2	Pb 220.353†	358.9	316.3	[100]	µg/L	14:10:19
2	S 181.975 Axial†	65.2	51.1	[200]	µg/L	14:10:19
2	Sb 206.836†	110.5	89.2	[100]	µg/L	14:10:19
2	Se 196.026†	98.2	82.7	[100]	µg/L	14:10:19
2	SiO2†	6038.0	4638.8	[1069.5]	µg/L	14:09:58
2	Si 251.611†	6270.1	5886.5	[500]	µg/L	14:09:58
2	Sn 189.927†	223.7	214.3	[100]	µg/L	14:10:19
2	Sr 421.552†	20619.8	20044.3	[100]	µg/L	14:09:04
2	Ti 334.940†	36439.7	36263.9	[100]	µg/L	14:09:58
2	Tl 190.801†	57.8	83.8	[100]	µg/L	14:10:19
2	U 409.014†	1294.7	1174.2	[100]	µg/L	14:09:58

2	V 292.402†	7596.5	7729.3	[100]	µg/L	14:09:58
2	Zn 213.857†	4230.1	3683.2	[100]	µg/L	14:09:58
3	Sc 361.383	1589272.5	1589272.5	99.803	%	14:10:25
3	Sc RADIAL	100577.3	100577.3	102	%	14:09:10
3	Y 371.029	1113107.6	1113107.6	100.04	%	14:10:25
3	Ag 328.068†	11676.2	11477.4	[100]	µg/L	14:10:31
3	As 188.979†	59.5	58.0	[100]	µg/L	14:10:51
3	B 249.677†	3149.4	1817.3	[100]	µg/L	14:10:31
3	Ba 233.527†	3824.4	3859.7	[100]	µg/L	14:10:31
3	Be 313.107†	133645.3	136132.9	[100]	µg/L	14:10:25
3	Cd 226.502†	3236.2	3384.5	[100]	µg/L	14:10:31
3	Co 228.616†	1913.8	1903.7	[100]	µg/L	14:10:51
3	Cr 267.716†	3921.9	3850.6	[100]	µg/L	14:10:31
3	Cu 324.752†	16730.4	14101.7	[100]	µg/L	14:10:31
3	K 766.490 Radial†	1973.1	1713.1	[1000]	µg/L	14:09:10
3	Mn 257.610†	26890.4	27506.6	[100]	µg/L	14:10:31
3	Mo 202.031†	883.3	880.6	[100]	µg/L	14:10:51
3	Ni 231.604†	1751.2	1464.9	[100]	µg/L	14:10:51
3	P 214.914†	237.7	214.9	[500]	µg/L	14:10:51
3	Pb 220.353†	361.9	321.7	[100]	µg/L	14:10:51
3	S 181.975 Axial†	68.8	55.1	[200]	µg/L	14:10:51
3	Sb 206.836†	109.0	88.5	[100]	µg/L	14:10:51
3	Se 196.026†	89.4	74.5	[100]	µg/L	14:10:51
3	SiO2†	6112.2	4751.8	[1069.5]	µg/L	14:10:31
3	Si 251.611†	6269.4	5926.1	[500]	µg/L	14:10:31
3	Sn 189.927†	231.1	223.1	[100]	µg/L	14:10:51
3	Sr 421.552†	20558.2	20064.7	[100]	µg/L	14:09:10
3	Ti 334.940†	36456.5	36514.7	[100]	µg/L	14:10:31
3	Tl 190.801†	58.6	84.9	[100]	µg/L	14:10:51
3	U 409.014†	1305.2	1193.0	[100]	µg/L	14:10:31
3	V 292.402†	7607.0	7788.7	[100]	µg/L	14:10:31
3	Zn 213.857†	4237.9	3718.2	[100]	µg/L	14:10:31

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1594653.0	5142.19	0.32%	100.14	%
Sc RADIAL	100956.6	367.87	0.36%	102	%
Y 371.029	1116080.1	2622.01	0.23%	100.31	%
Ag 328.068†	11477.2	132.50	1.15%	[100]	µg/L
As 188.979†	57.1	0.81	1.43%	[100]	µg/L
B 249.677†	1825.3	22.23	1.22%	[100]	µg/L
Ba 233.527†	3851.7	32.89	0.85%	[100]	µg/L
Be 313.107†	135959.2	285.47	0.21%	[100]	µg/L
Cd 226.502†	3379.7	15.58	0.46%	[100]	µg/L
Co 228.616†	1904.4	6.72	0.35%	[100]	µg/L
Cr 267.716†	3858.6	25.73	0.67%	[100]	µg/L
Cu 324.752†	14054.0	160.21	1.14%	[100]	µg/L
K 766.490 Radial†	1710.8	6.39	0.37%	[1000]	µg/L
Mn 257.610†	27524.9	242.18	0.88%	[100]	µg/L
Mo 202.031†	885.1	4.72	0.53%	[100]	µg/L
Ni 231.604†	1475.5	11.36	0.77%	[100]	µg/L
P 214.914†	213.1	2.36	1.11%	[500]	µg/L
Pb 220.353†	318.2	3.03	0.95%	[100]	µg/L
S 181.975 Axial†	53.1	2.02	3.80%	[200]	µg/L
Sb 206.836†	87.6	2.25	2.57%	[100]	µg/L
Se 196.026†	76.4	5.58	7.30%	[100]	µg/L
SiO2†	4705.3	59.10	1.26%	[1069.5]	µg/L
Si 251.611†	5911.1	21.48	0.36%	[500]	µg/L
Sn 189.927†	218.0	4.58	2.10%	[100]	µg/L
Sr 421.552†	19956.1	170.67	0.86%	[100]	µg/L
Ti 334.940†	36482.4	204.31	0.56%	[100]	µg/L
Tl 190.801†	86.3	3.41	3.95%	[100]	µg/L
U 409.014†	1205.0	38.22	3.17%	[100]	µg/L
V 292.402†	7787.5	57.60	0.74%	[100]	µg/L
Zn 213.857†	3705.7	19.56	0.53%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/27/2010 14:11:01
Data Type: Reprocessed on 2/27/2010 15:12:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1585775.8	1585775.8	99.584	%	14:12:56
1	Sc RADIAL	101164.9	101164.9	102	%	14:11:33
1	Y 371.029	1104364.9	1104364.9	99.256	%	14:12:56
1	Ag 328.068†	55116.5	55125.2	[500]	µg/L	14:13:02
1	Al 396.153Radial†	9430.5	9390.2	[5000]	µg/L	14:11:33
1	As 188.979†	269.7	269.1	[500]	µg/L	14:13:22
1	B 249.677†	10220.4	8924.8	[500]	µg/L	14:13:02
1	Ba 233.527†	18506.1	18611.2	[500]	µg/L	14:13:02
1	Be 313.107†	653996.4	658955.2	[500]	µg/L	14:12:56
1	Ca 317.933Radial†	14337.7	13650.8	[5000]	µg/L	14:11:33
1	Cd 226.502†	16036.7	16245.7	[500]	µg/L	14:13:02
1	Co 228.616†	9317.7	9342.8	[500]	µg/L	14:13:02
1	Cr 267.716†	18499.7	18498.0	[500]	µg/L	14:13:02
1	Cu 324.752†	69611.1	67240.5	[500]	µg/L	14:13:02
1	K 766.490 Radial†	8690.6	8267.5	[5000]	µg/L	14:11:33
1	Mg 279.077 IEC†	450.8	432.3	[5000]	µg/L	14:11:54
1	Mn 257.610†	130138.8	131246.1	[500]	µg/L	14:13:02
1	Mo 202.031†	4210.0	4223.1	[500]	µg/L	14:13:22
1	Ni 231.604†	7293.2	7034.0	[500]	µg/L	14:13:22
1	P 214.914†	1049.9	1031.1	[2500]	µg/L	14:13:22
1	Pb 220.353†	1566.1	1531.7	[500]	µg/L	14:13:22
1	S 181.975 Axial†	258.4	245.7	[1000]	µg/L	14:13:22
1	Sb 206.836†	455.6	436.7	[500]	µg/L	14:13:22
1	Se 196.026†	395.5	382.0	[500]	µg/L	14:13:22
1	SiO2†	24679.0	23409.8	[5347.5]	µg/L	14:13:02
1	Si 251.611†	29508.4	29276.1	[2500]	µg/L	14:13:02
1	Sn 189.927†	1051.6	1047.5	[500]	µg/L	14:13:22
1	Sr 421.552†	100289.1	97875.7	[500]	µg/L	14:11:33
1	Ti 334.940†	177000.8	177727.2	[500]	µg/L	14:12:56
1	Tl 190.801†	384.2	412.1	[500]	µg/L	14:13:22
1	U 409.014†	5330.9	5238.5	[500]	µg/L	14:13:02
1	V 292.402†	37561.2	37884.9	[500]	µg/L	14:13:02
1	Zn 213.857†	18374.8	17923.5	[500]	µg/L	14:13:02
2	Sc 361.383	1595067.4	1595067.4	100.17	%	14:13:28
2	Sc RADIAL	100204.5	100204.5	101	%	14:11:59
2	Y 371.029	1111113.8	1111113.8	99.862	%	14:13:28
2	Ag 328.068†	55080.0	54766.4	[500]	µg/L	14:13:34
2	Al 396.153Radial†	9322.5	9372.0	[5000]	µg/L	14:11:59
2	As 188.979†	265.9	263.8	[500]	µg/L	14:13:54
2	B 249.677†	10215.9	8860.6	[500]	µg/L	14:13:34
2	Ba 233.527†	18443.2	18440.2	[500]	µg/L	14:13:34
2	Be 313.107†	656124.4	657254.2	[500]	µg/L	14:13:28
2	Ca 317.933Radial†	14081.8	13532.7	[5000]	µg/L	14:11:59
2	Cd 226.502†	15999.0	16114.2	[500]	µg/L	14:13:34
2	Co 228.616†	9279.5	9250.1	[500]	µg/L	14:13:34
2	Cr 267.716†	18511.4	18401.5	[500]	µg/L	14:13:34
2	Cu 324.752†	69321.3	66544.0	[500]	µg/L	14:13:34
2	K 766.490 Radial†	8655.9	8314.6	[5000]	µg/L	14:11:59
2	Mg 279.077 IEC†	447.8	433.5	[5000]	µg/L	14:12:20
2	Mn 257.610†	129766.9	130113.6	[500]	µg/L	14:13:34
2	Mo 202.031†	4168.8	4157.3	[500]	µg/L	14:13:54
2	Ni 231.604†	7226.6	6924.9	[500]	µg/L	14:13:54
2	P 214.914†	1048.3	1023.3	[2500]	µg/L	14:13:54
2	Pb 220.353†	1562.0	1518.4	[500]	µg/L	14:13:54
2	S 181.975 Axial†	260.3	246.1	[1000]	µg/L	14:13:54
2	Sb 206.836†	449.6	428.1	[500]	µg/L	14:13:54
2	Se 196.026†	393.2	377.5	[500]	µg/L	14:13:54
2	SiO2†	24685.9	23272.3	[5347.5]	µg/L	14:13:34

2	Si 251.611†	29465.4	29060.5	[2500]	µg/L	14:13:34
2	Sn 189.927†	1035.5	1025.3	[500]	µg/L	14:13:54
2	Sr 421.552†	99000.1	97543.2	[500]	µg/L	14:11:59
2	Ti 334.940†	177084.2	176775.1	[500]	µg/L	14:13:28
2	Tl 190.801†	381.5	407.2	[500]	µg/L	14:13:54
2	U 409.014†	5298.3	5174.8	[500]	µg/L	14:13:34
2	V 292.402†	37503.2	37607.3	[500]	µg/L	14:13:34
2	Zn 213.857†	18381.1	17822.3	[500]	µg/L	14:13:34
3	Sc 361.383	1591261.1	1591261.1	99.928	%	14:14:00
3	Sc RADIAL	100619.4	100619.4	102	%	14:12:25
3	Y 371.029	1109042.1	1109042.1	99.676	%	14:14:00
3	Ag 328.068†	51634.1	51449.5	[500]	µg/L	14:14:06
3	Al 396.153Radial†	9259.6	9272.2	[5000]	µg/L	14:12:25
3	As 188.979†	229.5	228.0	[500]	µg/L	14:14:26
3	B 249.677†	9605.7	8274.3	[500]	µg/L	14:14:06
3	Ba 233.527†	16780.8	16820.6	[500]	µg/L	14:14:06
3	Be 313.107†	606993.9	609655.1	[500]	µg/L	14:14:00
3	Ca 317.933Radial†	14025.9	13420.4	[5000]	µg/L	14:12:25
3	Cd 226.502†	14435.8	14588.1	[500]	µg/L	14:14:06
3	Co 228.616†	8312.4	8304.4	[500]	µg/L	14:14:06
3	Cr 267.716†	16117.3	16049.9	[500]	µg/L	14:14:06
3	Cu 324.752†	62746.7	60130.2	[500]	µg/L	14:14:06
3	K 766.490 Radial†	8625.8	8249.9	[5000]	µg/L	14:12:25
3	Mg 279.077 IEC†	455.5	439.3	[5000]	µg/L	14:12:46
3	Mn 257.610†	116553.6	117200.7	[500]	µg/L	14:14:06
3	Mo 202.031†	3482.9	3480.9	[500]	µg/L	14:14:26
3	Ni 231.604†	6059.0	5773.6	[500]	µg/L	14:14:26
3	P 214.914†	889.8	867.2	[2500]	µg/L	14:14:26
3	Pb 220.353†	1348.0	1308.0	[500]	µg/L	14:14:26
3	S 181.975 Axial†	231.7	218.1	[1000]	µg/L	14:14:26
3	Sb 206.836†	388.1	367.7	[500]	µg/L	14:14:26
3	Se 196.026†	351.0	336.2	[500]	µg/L	14:14:26
3	SiO2†	22888.0	21532.1	[5347.5]	µg/L	14:14:06
3	Si 251.611†	27176.8	26840.6	[2500]	µg/L	14:14:06
3	Sn 189.927†	858.2	850.4	[500]	µg/L	14:14:26
3	Sr 421.552†	98977.1	97117.8	[500]	µg/L	14:12:25
3	Ti 334.940†	162981.1	163084.7	[500]	µg/L	14:14:00
3	Tl 190.801†	345.2	371.7	[500]	µg/L	14:14:26
3	U 409.014†	4701.1	4589.8	[500]	µg/L	14:14:06
3	V 292.402†	33469.8	33660.5	[500]	µg/L	14:14:06
3	Zn 213.857†	16572.6	16056.4	[500]	µg/L	14:14:06

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1590701.4	4670.99	0.29%	99.893	%
Sc RADIAL	100662.9	481.69	0.48%	102	%
Y 371.029	1108173.6	3457.24	0.31%	99.598	%
Ag 328.068†	53780.4	2026.54	3.77%	[500]	µg/L
Al 396.153Radial†	9344.8	63.52	0.68%	[5000]	µg/L
As 188.979†	253.7	22.37	8.82%	[500]	µg/L
B 249.677†	8686.6	358.48	4.13%	[500]	µg/L
Ba 233.527†	17957.3	988.14	5.50%	[500]	µg/L
Be 313.107†	641954.8	27985.31	4.36%	[500]	µg/L
Ca 317.933Radial†	13534.6	115.19	0.85%	[5000]	µg/L
Cd 226.502†	15649.3	921.43	5.89%	[500]	µg/L
Co 228.616†	8965.8	574.61	6.41%	[500]	µg/L
Cr 267.716†	17649.8	1386.42	7.86%	[500]	µg/L
Cu 324.752†	64638.2	3919.59	6.06%	[500]	µg/L
K 766.490 Radial†	8277.3	33.49	0.40%	[5000]	µg/L
Mg 279.077 IEC†	435.0	3.76	0.87%	[5000]	µg/L
Mn 257.610†	126186.8	7802.77	6.18%	[500]	µg/L
Mo 202.031†	3953.8	410.82	10.39%	[500]	µg/L
Ni 231.604†	6577.5	698.29	10.62%	[500]	µg/L
P 214.914†	973.8	92.47	9.50%	[2500]	µg/L
Pb 220.353†	1452.7	125.49	8.64%	[500]	µg/L
S 181.975 Axial†	236.6	16.05	6.78%	[1000]	µg/L
Sb 206.836†	410.8	37.62	9.16%	[500]	µg/L
Se 196.026†	365.2	25.25	6.91%	[500]	µg/L
SiO2†	22738.1	1046.66	4.60%	[5347.5]	µg/L

Si 251.611†	28392.4	1348.19	4.75%	[2500]	µg/L
Sn 189.927†	974.4	107.97	11.08%	[500]	µg/L
Sr 421.552†	97512.2	379.90	0.39%	[500]	µg/L
Ti 334.940†	172529.0	8192.85	4.75%	[500]	µg/L
Tl 190.801†	397.0	22.04	5.55%	[500]	µg/L
U 409.014†	5001.0	357.54	7.15%	[500]	µg/L
V 292.402†	36384.2	2362.87	6.49%	[500]	µg/L
Zn 213.857†	17267.4	1049.99	6.08%	[500]	µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/27/2010 14:14:36
Data Type: Reprocessed on 2/27/2010 15:13:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1622975.7	1622975.7	101.92	%	14:16:34
1	Sc RADIAL	101767.6	101767.6	103	%	14:15:10
1	Y 371.029	1129175.6	1129175.6	101.49	%	14:16:34
1	Ag 328.068†	114399.9	112023.4	[1000]	µg/L	14:16:40
1	Al 396.153Radial†	19646.7	19261.8	[10000]	µg/L	14:15:10
1	As 188.979†	546.6	534.7	[1000]	µg/L	14:17:01
1	B 249.677†	19799.6	18088.4	[1000]	µg/L	14:16:40
1	Ba 233.527†	38047.3	37358.4	[1000]	µg/L	14:16:40
1	Be 313.107†	1362771.3	1339327.7	[1000]	µg/L	14:16:34
1	Ca 317.933Radial†	28877.1	27694.4	[10000]	µg/L	14:15:10
1	Cd 226.502†	33019.0	32539.0	[1000]	µg/L	14:16:40
1	Co 228.616†	18919.6	18549.4	[1000]	µg/L	14:16:40
1	Cr 267.716†	38145.9	37348.4	[1000]	µg/L	14:16:40
1	Cu 324.752†	140580.1	135270.6	[1000]	µg/L	14:16:40
1	Fe 238.204 Radial†	1185.3	1126.2	[10000]	µg/L	14:15:30
1	K 766.490 Radial†	17627.7	16900.5	[10000]	µg/L	14:15:10
1	Mg 279.077 IEC†	925.0	890.4	[10000]	µg/L	14:15:30
1	Mn 257.610†	267237.4	262767.1	[1000]	µg/L	14:16:40
1	Mo 202.031†	8765.9	8596.3	[1000]	µg/L	14:17:01
1	Na 589.592 Radial†	25234.7	24271.6	[10000]	µg/L	14:15:10
1	Ni 231.604†	14661.1	14095.3	[1000]	µg/L	14:17:01
1	P 214.914†	2170.9	2106.8	[5000]	µg/L	14:17:01
1	Pb 220.353†	3193.6	3092.5	[1000]	µg/L	14:17:01
1	S 181.975 Axial†	531.6	507.7	[2000]	µg/L	14:17:01
1	Sb 206.836†	944.3	905.7	[1000]	µg/L	14:17:01
1	Se 196.026†	811.2	780.8	[1000]	µg/L	14:17:01
1	SiO2†	49052.4	46756.1	[10695]	µg/L	14:16:40
1	Si 251.611†	59930.1	58445.6	[5000]	µg/L	14:16:40
1	Sn 189.927†	2195.7	2145.9	[1000]	µg/L	14:17:01
1	Sr 421.552†	203911.7	197975.3	[1000]	µg/L	14:15:10
1	Ti 334.940†	369786.9	362808.2	[1000]	µg/L	14:16:34
1	Tl 190.801†	817.8	828.7	[1000]	µg/L	14:17:01
1	U 409.014†	10983.0	10661.4	[1000]	µg/L	14:16:40
1	V 292.402†	77647.3	76351.4	[1000]	µg/L	14:16:40
1	Zn 213.857†	36963.1	35738.7	[1000]	µg/L	14:16:40
2	Sc 361.383	1611015.4	1611015.4	101.17	%	14:17:08
2	Sc RADIAL	102105.9	102105.9	103	%	14:15:36
2	Y 371.029	1120725.8	1120725.8	100.73	%	14:17:08
2	Ag 328.068†	114039.3	112500.3	[1000]	µg/L	14:17:14
2	Al 396.153Radial†	19661.5	19212.8	[10000]	µg/L	14:15:36
2	As 188.979†	542.6	534.7	[1000]	µg/L	14:17:34
2	B 249.677†	19665.0	18099.6	[1000]	µg/L	14:17:14
2	Ba 233.527†	37922.2	37511.9	[1000]	µg/L	14:17:14
2	Be 313.107†	1348669.9	1335315.9	[1000]	µg/L	14:17:08
2	Ca 317.933Radial†	29076.4	27794.4	[10000]	µg/L	14:15:36
2	Cd 226.502†	32889.0	32651.0	[1000]	µg/L	14:17:14
2	Co 228.616†	18908.2	18675.9	[1000]	µg/L	14:17:14
2	Cr 267.716†	37899.0	37382.2	[1000]	µg/L	14:17:14
2	Cu 324.752†	140022.7	135743.7	[1000]	µg/L	14:17:14
2	Fe 238.204 Radial†	1190.8	1127.7	[10000]	µg/L	14:15:56
2	K 766.490 Radial†	17741.9	16954.3	[10000]	µg/L	14:15:36
2	Mg 279.077 IEC†	917.5	880.1	[10000]	µg/L	14:15:56
2	Mn 257.610†	266305.1	263792.2	[1000]	µg/L	14:17:14
2	Mo 202.031†	8634.0	8529.8	[1000]	µg/L	14:17:34
2	Na 589.592 Radial†	25419.6	24369.5	[10000]	µg/L	14:15:36
2	Ni 231.604†	14455.6	13998.9	[1000]	µg/L	14:17:34
2	P 214.914†	2134.0	2086.1	[5000]	µg/L	14:17:34
2	Pb 220.353†	3172.9	3095.3	[1000]	µg/L	14:17:34

2	S 181.975 Axial†	521.3	501.4	[2000]	µg/L	14:17:34
2	Sb 206.836†	932.5	901.0	[1000]	µg/L	14:17:34
2	Se 196.026†	801.0	776.6	[1000]	µg/L	14:17:34
2	SiO2†	49112.9	47173.2	[10695]	µg/L	14:17:14
2	Si 251.611†	59991.0	58942.4	[5000]	µg/L	14:17:14
2	Sn 189.927†	2160.4	2127.0	[1000]	µg/L	14:17:34
2	Sr 421.552†	205027.3	198399.2	[1000]	µg/L	14:15:36
2	Ti 334.940†	365832.4	361593.0	[1000]	µg/L	14:17:08
2	Tl 190.801†	817.6	834.4	[1000]	µg/L	14:17:34
2	U 409.014†	10839.2	10599.2	[1000]	µg/L	14:17:14
2	V 292.402†	77563.5	76834.2	[1000]	µg/L	14:17:14
2	Zn 213.857†	36855.1	35901.2	[1000]	µg/L	14:17:14
3	Sc 361.383	1613977.0	1613977.0	101.35	%	14:17:41
3	Sc RADIAL	102521.8	102521.8	104	%	14:16:02
3	Y 371.029	1124957.5	1124957.5	101.11	%	14:17:41
3	Ag 328.068†	106516.8	104871.5	[1000]	µg/L	14:17:47
3	Al 396.153Radial†	19484.1	18964.5	[10000]	µg/L	14:16:02
3	As 188.979†	443.4	435.8	[1000]	µg/L	14:18:07
3	B 249.677†	18319.1	16736.0	[1000]	µg/L	14:17:47
3	Ba 233.527†	34072.6	33645.0	[1000]	µg/L	14:17:47
3	Be 313.107†	1244902.9	1230489.5	[1000]	µg/L	14:17:41
3	Ca 317.933Radial†	28766.9	27381.7	[10000]	µg/L	14:16:02
3	Cd 226.502†	29485.3	29233.2	[1000]	µg/L	14:17:47
3	Co 228.616†	16802.5	16564.0	[1000]	µg/L	14:17:47
3	Cr 267.716†	32704.9	32188.7	[1000]	µg/L	14:17:47
3	Cu 324.752†	124678.4	120350.5	[1000]	µg/L	14:17:47
3	Fe 238.204 Radial†	1188.4	1120.7	[10000]	µg/L	14:16:23
3	K 766.490 Radial†	17447.2	16600.4	[10000]	µg/L	14:16:02
3	Mg 279.077 IEC†	919.6	878.6	[10000]	µg/L	14:16:23
3	Mn 257.610†	235945.1	233354.9	[1000]	µg/L	14:17:47
3	Mo 202.031†	7008.2	6910.0	[1000]	µg/L	14:18:07
3	Na 589.592 Radial†	25334.5	24187.5	[10000]	µg/L	14:16:02
3	Ni 231.604†	11808.4	11360.9	[1000]	µg/L	14:18:07
3	P 214.914†	1788.9	1741.7	[5000]	µg/L	14:18:07
3	Pb 220.353†	2677.1	2600.4	[1000]	µg/L	14:18:07
3	S 181.975 Axial†	455.4	435.5	[2000]	µg/L	14:18:07
3	Sb 206.836†	777.2	746.0	[1000]	µg/L	14:18:07
3	Se 196.026†	692.1	667.7	[1000]	µg/L	14:18:07
3	SiO2†	45038.9	43064.6	[10695]	µg/L	14:17:47
3	Si 251.611†	54937.0	53847.1	[5000]	µg/L	14:17:47
3	Sn 189.927†	1720.5	1689.0	[1000]	µg/L	14:18:07
3	Sr 421.552†	203457.5	196079.6	[1000]	µg/L	14:16:02
3	Ti 334.940†	334834.2	330345.5	[1000]	µg/L	14:17:41
3	Tl 190.801†	703.0	719.8	[1000]	µg/L	14:18:07
3	U 409.014†	9513.2	9271.4	[1000]	µg/L	14:17:47
3	V 292.402†	67826.6	67086.8	[1000]	µg/L	14:17:47
3	Zn 213.857†	32794.2	31827.8	[1000]	µg/L	14:17:47

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1615989.4	6228.91	0.39%	101.48	%
Sc RADIAL	102131.8	377.80	0.37%	103	%
Y 371.029	1124953.0	4224.91	0.38%	101.11	%
Ag 328.068†	109798.4	4273.49	3.89%	[1000]	µg/L
Al 396.153Radial†	19146.4	159.41	0.83%	[10000]	µg/L
As 188.979†	501.8	57.09	11.38%	[1000]	µg/L
B 249.677†	17641.3	784.04	4.44%	[1000]	µg/L
Ba 233.527†	36171.7	2189.59	6.05%	[1000]	µg/L
Be 313.107†	1301711.0	61712.26	4.74%	[1000]	µg/L
Ca 317.933Radial†	27623.5	215.29	0.78%	[10000]	µg/L
Cd 226.502†	31474.4	1941.76	6.17%	[1000]	µg/L
Co 228.616†	17929.7	1184.47	6.61%	[1000]	µg/L
Cr 267.716†	35639.8	2988.75	8.39%	[1000]	µg/L
Cu 324.752†	130454.9	8753.92	6.71%	[1000]	µg/L
Fe 238.204 Radial†	1124.9	3.69	0.33%	[10000]	µg/L
K 766.490 Radial†	16818.4	190.69	1.13%	[10000]	µg/L
Mg 279.077 IEC†	883.0	6.41	0.73%	[10000]	µg/L
Mn 257.610†	253304.7	17284.65	6.82%	[1000]	µg/L
Mo 202.031†	8012.0	954.96	11.92%	[1000]	µg/L

Na 589.592 Radial†	24276.2	91.07	0.38%	[10000]	µg/L
Ni 231.604†	13151.7	1551.62	11.80%	[1000]	µg/L
P 214.914†	1978.2	205.05	10.37%	[5000]	µg/L
Pb 220.353†	2929.4	284.97	9.73%	[1000]	µg/L
S 181.975 Axial†	481.6	40.00	8.31%	[2000]	µg/L
Sb 206.836†	850.9	90.87	10.68%	[1000]	µg/L
Se 196.026†	741.7	64.10	8.64%	[1000]	µg/L
SiO2†	45664.6	2261.35	4.95%	[10695]	µg/L
Si 251.611†	57078.3	2809.37	4.92%	[5000]	µg/L
Sn 189.927†	1987.3	258.49	13.01%	[1000]	µg/L
Sr 421.552†	197484.7	1235.19	0.63%	[1000]	µg/L
Ti 334.940†	351582.3	18401.58	5.23%	[1000]	µg/L
Tl 190.801†	794.3	64.57	8.13%	[1000]	µg/L
U 409.014†	10177.3	785.19	7.72%	[1000]	µg/L
V 292.402†	73424.1	5493.62	7.48%	[1000]	µg/L
Zn 213.857†	34489.3	2306.31	6.69%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/27/2010 14:18:16
Data Type: Reprocessed on 2/27/2010 15:13:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1613912.7	1613912.7	101.35	%	14:20:13
1	Sc RADIAL	101510.1	101510.1	103	%	14:18:49
1	Y 371.029	1119790.5	1119790.5	100.64	%	14:20:13
1	Al 396.153Radial†	92884.4	90648.6	[50000]	µg/L	14:18:49
1	Ca 317.933Radial†	134042.4	130203.7	[50000]	µg/L	14:18:49
1	Fe 238.204 Radial†	2199.2	2116.7	[20000]	µg/L	14:19:09
1	Mg 279.077 IEC†	4251.9	4133.3	[50000]	µg/L	14:19:09
1	Na 589.592 Radial†	47408.5	45932.6	[20000]	µg/L	14:18:49
2	Sc 361.383	1614245.0	1614245.0	101.37	%	14:20:21
2	Sc RADIAL	101466.5	101466.5	103	%	14:19:15
2	Y 371.029	1117379.2	1117379.2	100.43	%	14:20:21
2	Al 396.153Radial†	92591.0	90401.7	[50000]	µg/L	14:19:15
2	Ca 317.933Radial†	133908.2	130129.0	[50000]	µg/L	14:19:15
2	Fe 238.204 Radial†	2198.9	2117.3	[20000]	µg/L	14:19:35
2	Mg 279.077 IEC†	4243.1	4126.5	[50000]	µg/L	14:19:35
2	Na 589.592 Radial†	47534.1	46074.9	[20000]	µg/L	14:19:15
3	Sc 361.383	1610400.7	1610400.7	101.13	%	14:20:29
3	Sc RADIAL	100907.4	100907.4	102	%	14:19:41
3	Y 371.029	1116479.3	1116479.3	100.34	%	14:20:29
3	Al 396.153Radial†	92654.8	90964.1	[50000]	µg/L	14:19:41
3	Ca 317.933Radial†	133514.0	130465.8	[50000]	µg/L	14:19:41
3	Fe 238.204 Radial†	2203.2	2133.4	[20000]	µg/L	14:20:01
3	Mg 279.077 IEC†	4259.5	4165.5	[50000]	µg/L	14:20:01
3	Na 589.592 Radial†	47342.7	46144.0	[20000]	µg/L	14:19:41

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1612852.8	2130.06	0.13%	101.28	%
Sc RADIAL	101294.7	336.11	0.33%	102	%
Y 371.029	1117883.0	1712.09	0.15%	100.47	%
Al 396.153Radial†	90671.5	281.89	0.31%	[50000]	µg/L
Ca 317.933Radial†	130266.2	176.88	0.14%	[50000]	µg/L
Fe 238.204 Radial†	2122.5	9.49	0.45%	[20000]	µg/L
Mg 279.077 IEC†	4141.7	20.81	0.50%	[50000]	µg/L
Na 589.592 Radial†	46050.5	107.78	0.23%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	109.4	0.00000	0.999957	
Al 396.153Radial	3	Lin Thru 0	0.0	1.818	0.00000	0.999939	
As 188.979	3	Lin Thru 0	0.0	0.5034	0.00000	0.999919	
B 249.677	3	Lin Thru 0	0.0	17.59	0.00000	0.999976	
Ba 233.527	3	Lin Thru 0	0.0	36.14	0.00000	0.999979	
Be 313.107	3	Lin Thru 0	0.0	1299	0.00000	0.999976	
Ca 317.933Radial	3	Lin Thru 0	0.0	2.612	0.00000	0.999928	
Cd 226.502	3	Lin Thru 0	0.0	31.46	0.00000	0.999975	
Co 228.616	3	Lin Thru 0	0.0	17.94	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	35.60	0.00000	0.999965	
Cu 324.752	3	Lin Thru 0	0.0	130.3	0.00000	0.999969	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1074	0.00000	0.999719	
K 766.490 Radial	3	Lin Thru 0	0.0	1.677	0.00000	0.999979	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0831	0.00000	0.999910	
Mn 257.610	3	Lin Thru 0	0.0	253.3	0.00000	0.999969	
Mo 202.031	3	Lin Thru 0	0.0	7.998	0.00000	0.999941	

Na 589.592 Radia	2	Lin Thru 0	0.0	2.328	0.00000	0.999769
Ni 231.604	3	Lin Thru 0	0.0	13.17	0.00000	0.999942
P 214.914	3	Lin Thru 0	0.0	0.3947	0.00000	0.999956
Pb 220.353	3	Lin Thru 0	0.0	2.927	0.00000	0.999964
S 181.975 Axial	3	Lin Thru 0	0.0	0.2402	0.00000	0.999931
Sb 206.836	3	Lin Thru 0	0.0	0.8453	0.00000	0.999900
Se 196.026	3	Lin Thru 0	0.0	0.7397	0.00000	0.999977
SiO2	3	Lin Thru 0	0.0	4.267	0.00000	0.999995
Si 251.611	3	Lin Thru 0	0.0	11.41	0.00000	0.999993
Sn 189.927	3	Lin Thru 0	0.0	1.981	0.00000	0.999930
Sr 421.552	3	Lin Thru 0	0.0	197.0	0.00000	0.999987
Ti 334.940	3	Lin Thru 0	0.0	350.4	0.00000	0.999966
Tl 190.801	3	Lin Thru 0	0.0	0.7948	0.00000	0.999970
U 409.014	3	Lin Thru 0	0.0	10.16	0.00000	0.999838
V 292.402	3	Lin Thru 0	0.0	73.33	0.00000	0.999978
Zn 213.857	3	Lin Thru 0	0.0	34.52	0.00000	0.999978

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/27/2010 14:24:10
Data Type: Reprocessed on 2/27/2010 15:15:04

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	1588593.0	1588593.0	99.760	%			14:26:09
1	Sc RADIAL	100748.1	100748.1	102	%			14:24:45
1	Y 371.029	1108907.8	1108907.8	99.664	%			14:26:09
1	Ag 328.068†	29626.2	29475.6	273.39	µg/L	273.39	ppb	14:26:15
1	Al 396.153Radial†	9685.8	9679.0	5312.4	µg/L	5312.4	ppb	14:24:45
1	As 188.979†	259.5	258.5	511.07	µg/L	511.07	ppb	14:26:35
1	B 249.677†	10706.2	9393.6	532.02	µg/L	532.02	ppb	14:26:15
1	Ba 233.527†	19090.5	19164.1	531.25	µg/L	531.25	ppb	14:26:15
1	Be 313.107†	350829.6	353895.9	272.32	µg/L	272.32	ppb	14:26:09
1	Ca 317.933Radial†	14322.0	13693.4	5242.0	µg/L	5242.0	ppb	14:24:45
1	Cd 226.502†	16423.6	16605.0	527.81	µg/L	527.81	ppb	14:26:15
1	Co 228.616†	9568.4	9577.5	533.34	µg/L	533.34	ppb	14:26:15
1	Cr 267.716†	18534.2	18499.7	520.05	µg/L	520.05	ppb	14:26:15
1	Cu 324.752†	71802.8	69313.4	532.94	µg/L	532.94	ppb	14:26:15
1	Fe 238.204 Radial†	602.6	565.9	5280.8	µg/L	5280.8	ppb	14:25:05
1	K 766.490 Radial†	4448.9	4139.6	2468.7	µg/L	2468.7	ppb	14:24:45
1	Mg 279.077 IEC†	474.7	457.6	5511.4	µg/L	5511.4	ppb	14:25:05
1	Mn 257.610†	136897.6	137789.4	543.93	µg/L	543.93	ppb	14:26:09
1	Mo 202.031†	4704.9	4711.6	589.31	µg/L	589.31	ppb	14:26:35
1	Na 589.592 Radial†	6233.8	5871.6	2522.7	µg/L	2522.7	ppb	14:24:45
1	Ni 231.604†	7606.1	7334.6	556.56	µg/L	556.56	ppb	14:26:15
1	P 214.914†	1100.6	1080.0	2686.3	µg/L	2686.3	ppb	14:26:35
1	Pb 220.353†	1601.7	1564.6	535.35	µg/L	535.35	ppb	14:26:35
1	S 181.975 Axial†	667.9	655.7	2730.2	µg/L	2730.2	ppb	14:26:35
1	Sb 206.836†	482.2	462.6	550.86	µg/L	550.86	ppb	14:26:35
1	Se 196.026†	2069.0	2058.9	2796.7	µg/L	2796.7	ppb	14:26:35
1	SiO2†	46682.0	45421.7	10644	µg/L	10644	ppb	14:26:15
1	Si 251.611†	56848.9	56629.6	4964.4	µg/L	4964.4	ppb	14:26:15
1	Sn 189.927†	1177.4	1171.8	591.84	µg/L	591.84	ppb	14:26:35
1	Sr 421.552†	105832.7	103721.9	526.47	µg/L	526.47	ppb	14:24:45
1	Ti 334.940†	181503.1	181925.1	518.85	µg/L	518.85	ppb	14:26:09
1	Tl 190.801†	409.6	436.8	554.93	µg/L	554.93	ppb	14:26:35
1	U 409.014†	5259.4	5157.3	506.69	µg/L	506.69	ppb	14:26:15
1	V 292.402†	39059.9	39320.3	542.68	µg/L	542.68	ppb	14:26:15
1	Zn 213.857†	19232.6	18750.6	539.32	µg/L	539.32	ppb	14:26:15
2	Sc 361.383	1605315.7	1605315.7	100.81	%			14:26:42
2	Sc RADIAL	100627.8	100627.8	102	%			14:25:11
2	Y 371.029	1119302.2	1119302.2	100.60	%			14:26:42
2	Ag 328.068†	29582.4	29122.7	270.14	µg/L	270.14	ppb	14:26:48
2	Al 396.153Radial†	9627.3	9632.8	5287.3	µg/L	5287.3	ppb	14:25:11
2	As 188.979†	259.8	256.1	506.23	µg/L	506.23	ppb	14:27:08
2	B 249.677†	10737.9	9313.2	527.43	µg/L	527.43	ppb	14:26:48
2	Ba 233.527†	19154.6	19028.3	527.49	µg/L	527.49	ppb	14:26:48
2	Be 313.107†	352701.3	352089.2	270.93	µg/L	270.93	ppb	14:26:42
2	Ca 317.933Radial†	14308.8	13697.3	5243.4	µg/L	5243.4	ppb	14:25:11
2	Cd 226.502†	16402.5	16412.5	521.68	µg/L	521.68	ppb	14:26:48
2	Co 228.616†	9642.7	9551.2	531.87	µg/L	531.87	ppb	14:26:48
2	Cr 267.716†	18515.6	18287.7	514.10	µg/L	514.10	ppb	14:26:48
2	Cu 324.752†	71900.3	68660.5	527.93	µg/L	527.93	ppb	14:26:48
2	Fe 238.204 Radial†	604.9	568.9	5308.5	µg/L	5308.5	ppb	14:25:31
2	K 766.490 Radial†	4456.5	4152.3	2476.3	µg/L	2476.3	ppb	14:25:11
2	Mg 279.077 IEC†	473.0	456.5	5498.4	µg/L	5498.4	ppb	14:25:31
2	Mn 257.610†	137415.7	136873.9	540.32	µg/L	540.32	ppb	14:26:42
2	Mo 202.031†	4637.8	4596.0	574.84	µg/L	574.84	ppb	14:27:08
2	Na 589.592 Radial†	6307.8	5951.6	2557.0	µg/L	2557.0	ppb	14:25:11
2	Ni 231.604†	7587.9	7237.2	549.16	µg/L	549.16	ppb	14:26:48
2	P 214.914†	1086.0	1054.1	2620.9	µg/L	2620.9	ppb	14:27:08
2	Pb 220.353†	1603.6	1549.8	530.27	µg/L	530.27	ppb	14:27:08

2	S 181.975 Axial†	659.6	640.5	2667.0 µg/L	2667.0 ppb	14:27:08
2	Sb 206.836†	477.3	452.7	539.05 µg/L	539.05 ppb	14:27:08
2	Se 196.026†	2045.9	2014.4	2736.7 µg/L	2736.7 ppb	14:27:08
2	SiO2†	46880.7	45131.3	10576 µg/L	10576 ppb	14:26:48
2	Si 251.611†	57104.5	56289.5	4934.5 µg/L	4934.5 ppb	14:26:48
2	Sn 189.927†	1164.4	1146.6	579.15 µg/L	579.15 ppb	14:27:08
2	Sr 421.552†	106139.7	104147.7	528.63 µg/L	528.63 ppb	14:25:11
2	Ti 334.940†	182230.4	180751.3	515.50 µg/L	515.50 ppb	14:26:42
2	Tl 190.801†	414.6	437.5	555.73 µg/L	555.73 ppb	14:27:08
2	U 409.014†	5201.2	5044.6	495.59 µg/L	495.59 ppb	14:26:48
2	V 292.402†	39197.2	39048.6	538.84 µg/L	538.84 ppb	14:26:48
2	Zn 213.857†	19294.3	18611.0	535.32 µg/L	535.32 ppb	14:26:48
3	Sc 361.383	1597483.6	1597483.6	100.32 %		14:27:15
3	Sc RADIAL	100955.2	100955.2	102 %		14:25:37
3	Y 371.029	1112859.7	1112859.7	100.02 %		14:27:15
3	Ag 328.068†	27770.2	27460.2	254.57 µg/L	254.57 ppb	14:27:21
3	Al 396.153Radial†	9734.2	9706.9	5330.1 µg/L	5330.1 ppb	14:25:37
3	As 188.979†	222.1	219.8	434.30 µg/L	434.30 ppb	14:27:41
3	B 249.677†	10097.8	8727.5	494.05 µg/L	494.05 ppb	14:27:21
3	Ba 233.527†	17527.8	17499.8	485.09 µg/L	485.09 ppb	14:27:21
3	Be 313.107†	329702.3	330878.6	254.61 µg/L	254.61 ppb	14:27:15
3	Ca 317.933Radial†	14500.4	13839.3	5297.8 µg/L	5297.8 ppb	14:25:37
3	Cd 226.502†	14917.1	15011.6	477.10 µg/L	477.10 ppb	14:27:21
3	Co 228.616†	8710.9	8669.3	482.69 µg/L	482.69 ppb	14:27:21
3	Cr 267.716†	16303.8	16173.0	454.65 µg/L	454.65 ppb	14:27:21
3	Cu 324.752†	65232.6	62363.5	479.60 µg/L	479.60 ppb	14:27:21
3	Fe 238.204 Radial†	605.5	567.6	5294.9 µg/L	5294.9 ppb	14:25:57
3	K 766.490 Radial†	4563.7	4243.1	2530.4 µg/L	2530.4 ppb	14:25:37
3	Mg 279.077 IEC†	469.1	451.1	5431.9 µg/L	5431.9 ppb	14:25:57
3	Mn 257.610†	129058.7	129211.7	510.07 µg/L	510.07 ppb	14:27:15
3	Mo 202.031†	3831.1	3814.4	477.12 µg/L	477.12 ppb	14:27:41
3	Na 589.592 Radial†	6313.3	5936.9	2550.7 µg/L	2550.7 ppb	14:25:37
3	Ni 231.604†	6927.5	6615.8	502.02 µg/L	502.02 ppb	14:27:21
3	P 214.914†	924.5	898.3	2229.9 µg/L	2229.9 ppb	14:27:41
3	Pb 220.353†	1369.5	1324.2	453.05 µg/L	453.05 ppb	14:27:41
3	S 181.975 Axial†	570.2	554.6	2309.4 µg/L	2309.4 ppb	14:27:41
3	Sb 206.836†	405.6	383.5	456.27 µg/L	456.27 ppb	14:27:41
3	Se 196.026†	1764.8	1744.1	2371.2 µg/L	2371.2 ppb	14:27:41
3	SiO2†	43459.9	41949.3	9830.5 µg/L	9830.5 ppb	14:27:21
3	Si 251.611†	52754.2	52230.8	4578.7 µg/L	4578.7 ppb	14:27:21
3	Sn 189.927†	951.9	940.4	475.07 µg/L	475.07 ppb	14:27:41
3	Sr 421.552†	106585.0	104245.6	529.13 µg/L	529.13 ppb	14:25:37
3	Ti 334.940†	169506.0	168953.6	481.84 µg/L	481.84 ppb	14:27:15
3	Tl 190.801†	364.7	389.8	495.34 µg/L	495.34 ppb	14:27:41
3	U 409.014†	4677.5	4547.9	446.68 µg/L	446.68 ppb	14:27:21
3	V 292.402†	34907.3	34963.0	482.18 µg/L	482.18 ppb	14:27:21
3	Zn 213.857†	17499.7	16916.0	486.50 µg/L	486.50 ppb	14:27:21

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1597130.8	100.30	%	0.525				0.52%
Sc RADIAL	100777.0	102	%	0.2				0.16%
Y 371.029	1113689.9	100.09	%	0.472				0.47%
Ag 328.068†	28686.2	266.03	µg/L	10.057	266.03	ppb	10.057	3.78%
QC value within limits for Ag 328.068 Recovery = 106.41%								
Al 396.153Radial†	9672.9	5309.9	µg/L	21.48	5309.9	ppb	21.48	0.40%
QC value within limits for Al 396.153Radial Recovery = 106.20%								
As 188.979†	244.8	483.87	µg/L	42.996	483.87	ppb	42.996	8.89%
QC value within limits for As 188.979 Recovery = 96.77%								
B 249.677†	9144.8	517.83	µg/L	20.729	517.83	ppb	20.729	4.00%
QC value within limits for B 249.677 Recovery = 103.57%								
Ba 233.527†	18564.0	514.61	µg/L	25.633	514.61	ppb	25.633	4.98%
QC value within limits for Ba 233.527 Recovery = 102.92%								
Be 313.107†	345621.2	265.95	µg/L	9.848	265.95	ppb	9.848	3.70%
QC value within limits for Be 313.107 Recovery = 106.38%								
Ca 317.933Radial†	13743.3	5261.1	µg/L	31.82	5261.1	ppb	31.82	0.60%
QC value within limits for Ca 317.933Radial Recovery = 105.22%								
Cd 226.502†	16009.7	508.86	µg/L	27.677	508.86	ppb	27.677	5.44%
QC value within limits for Cd 226.502 Recovery = 101.77%								

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Co 228.616†            9266.0      515.97 µg/L        28.829      515.97 ppb         28.829   5.59%
   QC value within limits for Co 228.616  Recovery = 103.19%
Cr 267.716†           17653.4      496.27 µg/L        36.163      496.27 ppb         36.163   7.29%
   QC value within limits for Cr 267.716  Recovery = 99.25%
Cu 324.752†           66779.2      513.49 µg/L        29.454      513.49 ppb         29.454   5.74%
   QC value within limits for Cu 324.752  Recovery = 102.70%
Fe 238.204 Radial†      567.5      5294.7 µg/L         13.84      5294.7 ppb          13.84   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.89%
K 766.490 Radial†      4178.4      2491.8 µg/L         33.64      2491.8 ppb          33.64   1.35%
   QC value within limits for K 766.490 Radial  Recovery = 99.67%
Mg 279.077 IEC†         455.0      5480.6 µg/L         42.65      5480.6 ppb          42.65   0.78%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.61%
Mn 257.610†          134625.0      531.44 µg/L        18.594      531.44 ppb         18.594   3.50%
   QC value within limits for Mn 257.610  Recovery = 106.29%
Mo 202.031†            4374.0      547.09 µg/L        61.023      547.09 ppb         61.023  11.15%
   QC value within limits for Mo 202.031  Recovery = 109.42%
Na 589.592 Radial†     5920.0      2543.5 µg/L         18.29      2543.5 ppb          18.29   0.72%
   QC value within limits for Na 589.592 Radial  Recovery = 101.74%
Ni 231.604†            7062.5      535.91 µg/L        29.586      535.91 ppb         29.586   5.52%
   QC value within limits for Ni 231.604  Recovery = 107.18%
P 214.914†             1010.8      2512.3 µg/L        246.81      2512.3 ppb         246.81   9.82%
   QC value within limits for P 214.914  Recovery = 100.49%
Pb 220.353†            1479.5      506.22 µg/L        46.123      506.22 ppb         46.123   9.11%
   QC value within limits for Pb 220.353  Recovery = 101.24%
S 181.975 Axial†        616.9      2568.9 µg/L        226.93      2568.9 ppb         226.93   8.83%
   QC value within limits for S 181.975 Axial  Recovery = 102.75%
Sb 206.836†             432.9      515.39 µg/L        51.545      515.39 ppb         51.545  10.00%
   QC value within limits for Sb 206.836  Recovery = 103.08%
Se 196.026†            1939.1      2634.9 µg/L        230.30      2634.9 ppb         230.30   8.74%
   QC value within limits for Se 196.026  Recovery = 105.40%
SiO2†                 44167.4       10350 µg/L         451.4       10350 ppb          451.4   4.36%
   QC value within limits for SiO2  Recovery = 96.78%
Si 251.611†           55050.0      4825.9 µg/L        214.55      4825.9 ppb         214.55   4.45%
   QC value within limits for Si 251.611  Recovery = 96.52%
Sn 189.927†            1086.3      548.69 µg/L        64.069      548.69 ppb         64.069  11.68%
   QC value within limits for Sn 189.927  Recovery = 109.74%
Sr 421.552†          104038.4      528.08 µg/L         1.413      528.08 ppb          1.413   0.27%
   QC value within limits for Sr 421.552  Recovery = 105.62%
Ti 334.940†          177210.0      505.40 µg/L        20.471      505.40 ppb         20.471   4.05%
   QC value within limits for Ti 334.940  Recovery = 101.08%
Tl 190.801†             421.4      535.33 µg/L        34.640      535.33 ppb         34.640   6.47%
   QC value within limits for Tl 190.801  Recovery = 107.07%
U 409.014†             4916.6      482.99 µg/L        31.927      482.99 ppb         31.927   6.61%
   QC value within limits for U 409.014  Recovery = 96.60%
V 292.402†            37777.3      521.23 µg/L        33.875      521.23 ppb         33.875   6.50%
   QC value within limits for V 292.402  Recovery = 104.25%
Zn 213.857†           18092.5      520.38 µg/L        29.407      520.38 ppb         29.407   5.65%
   QC value within limits for Zn 213.857  Recovery = 104.08%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/27/2010 14:27:51
Data Type: Reprocessed on 2/27/2010 15:16:09

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1569973.9	1569973.9	98.591	%			14:29:45
1	Sc RADIAL	98281.4	98281.4	99.4	%			14:28:23
1	Y 371.029	1098158.4	1098158.4	98.698	%			14:29:45
1	Ag 328.068†	234.5	16.1	0.1522	µg/L	0.1522	ppb	14:29:51
1	Al 396.153Radial†	-198.9	-27.1	-14.960	µg/L	-14.960	ppb	14:28:23
1	As 188.979†	1.7	0.0	0.0759	µg/L	0.0759	ppb	14:30:12
1	B 249.677†	1308.7	-10.8	-0.6381	µg/L	-0.6381	ppb	14:29:51
1	Ba 233.527†	-18.3	9.1	0.2535	µg/L	0.2535	ppb	14:30:12
1	Be 313.107†	-2139.3	54.2	0.0416	µg/L	0.0416	ppb	14:29:51
1	Ca 317.933Radial†	349.9	-10.6	-4.0765	µg/L	-4.0765	ppb	14:28:44
1	Cd 226.502†	-133.0	7.0	0.2191	µg/L	0.2191	ppb	14:30:12
1	Co 228.616†	15.0	1.3	0.0742	µg/L	0.0742	ppb	14:30:12
1	Cr 267.716†	84.7	6.8	0.1922	µg/L	0.1922	ppb	14:30:12
1	Cu 324.752†	2616.2	-8.1	-0.0543	µg/L	-0.0543	ppb	14:29:51
1	Fe 238.204 Radial†	29.9	4.6	42.816	µg/L	42.816	ppb	14:28:44
1	K 766.490 Radial†	191.9	-33.7	-20.071	µg/L	-20.071	ppb	14:28:23
1	Mg 279.077 IEC†	11.6	3.4	40.430	µg/L	40.430	ppb	14:28:44
1	Mn 257.610†	-494.4	61.6	0.2431	µg/L	0.2431	ppb	14:30:12
1	Mo 202.031†	14.8	10.5	1.3127	µg/L	1.3127	ppb	14:30:12
1	Na 589.592 Radial†	229.7	-15.4	-6.6204	µg/L	-6.6204	ppb	14:28:23
1	Ni 231.604†	302.7	17.3	1.3177	µg/L	1.3177	ppb	14:30:12
1	P 214.914†	25.1	2.2	5.5347	µg/L	5.5347	ppb	14:30:12
1	Pb 220.353†	38.9	-1.5	-0.4991	µg/L	-0.4991	ppb	14:30:12
1	S 181.975 Axial†	15.7	2.1	8.9525	µg/L	8.9525	ppb	14:30:12
1	Sb 206.836†	24.0	3.6	4.3132	µg/L	4.3132	ppb	14:30:12
1	Se 196.026†	25.8	11.0	15.040	µg/L	15.040	ppb	14:30:12
1	SiO2†	1384.8	32.1	7.5276	µg/L	7.5276	ppb	14:29:51
1	Si 251.611†	373.4	23.0	2.0126	µg/L	2.0126	ppb	14:30:12
1	Sn 189.927†	7.1	-1.3	-0.6331	µg/L	-0.6331	ppb	14:30:12
1	Sr 421.552†	133.0	-12.3	-0.0626	µg/L	-0.0626	ppb	14:28:23
1	Ti 334.940†	124.9	112.9	0.3190	µg/L	0.3190	ppb	14:29:51
1	Tl 190.801†	-26.8	-0.9	-1.0715	µg/L	-1.0715	ppb	14:30:12
1	U 409.014†	130.1	17.2	1.6891	µg/L	1.6891	ppb	14:29:51
1	V 292.402†	-144.8	19.8	0.2838	µg/L	0.2838	ppb	14:29:51
1	Zn 213.857†	526.8	6.2	0.1704	µg/L	0.1704	ppb	14:30:12
2	Sc 361.383	1566307.9	1566307.9	98.361	%			14:30:17
2	Sc RADIAL	98258.4	98258.4	99.4	%			14:28:49
2	Y 371.029	1093267.8	1093267.8	98.258	%			14:30:17
2	Ag 328.068†	278.6	61.4	0.5668	µg/L	0.5668	ppb	14:30:23
2	Al 396.153Radial†	-183.1	-11.3	-6.2623	µg/L	-6.2623	ppb	14:28:49
2	As 188.979†	4.5	2.9	5.8533	µg/L	5.8533	ppb	14:30:43
2	B 249.677†	1347.7	31.9	1.7902	µg/L	1.7902	ppb	14:30:23
2	Ba 233.527†	-13.5	14.0	0.3889	µg/L	0.3889	ppb	14:30:43
2	Be 313.107†	-2121.9	66.8	0.0513	µg/L	0.0513	ppb	14:30:23
2	Ca 317.933Radial†	342.1	-18.5	-7.0720	µg/L	-7.0720	ppb	14:29:10
2	Cd 226.502†	-124.9	15.0	0.4715	µg/L	0.4715	ppb	14:30:43
2	Co 228.616†	23.1	9.5	0.5310	µg/L	0.5310	ppb	14:30:43
2	Cr 267.716†	92.7	15.2	0.4268	µg/L	0.4268	ppb	14:30:43
2	Cu 324.752†	2608.8	-9.5	-0.0648	µg/L	-0.0648	ppb	14:30:23
2	Fe 238.204 Radial†	29.7	4.4	41.419	µg/L	41.419	ppb	14:29:10
2	K 766.490 Radial†	238.3	13.1	7.8358	µg/L	7.8358	ppb	14:28:49
2	Mg 279.077 IEC†	11.9	3.6	43.884	µg/L	43.884	ppb	14:29:10
2	Mn 257.610†	-466.9	88.4	0.3487	µg/L	0.3487	ppb	14:30:43
2	Mo 202.031†	13.4	9.1	1.1448	µg/L	1.1448	ppb	14:30:43
2	Na 589.592 Radial†	243.7	-1.3	-0.5421	µg/L	-0.5421	ppb	14:28:49
2	Ni 231.604†	286.5	1.6	0.1223	µg/L	0.1223	ppb	14:30:43
2	P 214.914†	22.9	0.1	0.2433	µg/L	0.2433	ppb	14:30:43
2	Pb 220.353†	46.5	6.3	2.1697	µg/L	2.1697	ppb	14:30:43

2	S 181.975 Axial†	17.5	4.0	16.704 µg/L	16.704 ppb	14:30:43
2	Sb 206.836†	19.3	-1.1	-1.3432 µg/L	-1.3432 ppb	14:30:43
2	Se 196.026†	16.8	2.0	2.7824 µg/L	2.7824 ppb	14:30:43
2	SiO2†	1381.5	32.1	7.5292 µg/L	7.5292 ppb	14:30:23
2	Si 251.611†	385.4	36.1	3.1654 µg/L	3.1654 ppb	14:30:43
2	Sn 189.927†	13.7	5.5	2.7545 µg/L	2.7545 ppb	14:30:43
2	Sr 421.552†	117.9	-27.5	-0.1395 µg/L	-0.1395 ppb	14:28:49
2	Ti 334.940†	154.6	143.4	0.4057 µg/L	0.4057 ppb	14:30:23
2	Tl 190.801†	-26.6	-0.8	-1.0215 µg/L	-1.0215 ppb	14:30:43
2	U 409.014†	69.0	-44.6	-4.3963 µg/L	-4.3963 ppb	14:30:23
2	V 292.402†	-140.7	23.6	0.3288 µg/L	0.3288 ppb	14:30:23
2	Zn 213.857†	536.2	17.0	0.4864 µg/L	0.4864 ppb	14:30:43
3	Sc 361.383	1572226.0	1572226.0	98.733 %		14:30:49
3	Sc RADIAL	97859.6	97859.6	99.0 %		14:29:15
3	Y 371.029	1098336.8	1098336.8	98.714 %		14:30:49
3	Ag 328.068†	217.0	-2.0	-0.0139 µg/L	-0.0139 ppb	14:30:54
3	Al 396.153Radial†	-148.7	22.7	12.461 µg/L	12.461 ppb	14:29:15
3	As 188.979†	-1.8	-3.4	-6.8277 µg/L	-6.8277 ppb	14:31:15
3	B 249.677†	1320.3	-1.0	-0.0859 µg/L	-0.0859 ppb	14:30:54
3	Ba 233.527†	-1.6	26.1	0.7213 µg/L	0.7213 ppb	14:31:15
3	Be 313.107†	-1894.1	305.6	0.2351 µg/L	0.2351 ppb	14:30:54
3	Ca 317.933Radial†	350.5	-8.6	-3.2752 µg/L	-3.2752 ppb	14:29:36
3	Cd 226.502†	-122.0	18.3	0.5773 µg/L	0.5773 ppb	14:31:15
3	Co 228.616†	20.1	6.4	0.3583 µg/L	0.3583 ppb	14:31:15
3	Cr 267.716†	107.7	30.1	0.8455 µg/L	0.8455 ppb	14:31:15
3	Cu 324.752†	2672.5	45.1	0.3568 µg/L	0.3568 ppb	14:30:54
3	Fe 238.204 Radial†	31.3	6.1	57.239 µg/L	57.239 ppb	14:29:36
3	K 766.490 Radial†	258.2	34.2	20.385 µg/L	20.385 ppb	14:29:15
3	Mg 279.077 IEC†	10.8	2.6	31.002 µg/L	31.002 ppb	14:29:36
3	Mn 257.610†	-421.7	136.0	0.5381 µg/L	0.5381 ppb	14:31:15
3	Mo 202.031†	16.3	12.0	1.5004 µg/L	1.5004 ppb	14:31:15
3	Na 589.592 Radial†	232.6	-11.4	-4.9182 µg/L	-4.9182 ppb	14:29:15
3	Ni 231.604†	307.8	22.1	1.6782 µg/L	1.6782 ppb	14:31:15
3	P 214.914†	20.0	-3.0	-7.5832 µg/L	-7.5832 ppb	14:31:15
3	Pb 220.353†	42.3	1.9	0.6451 µg/L	0.6451 ppb	14:31:15
3	S 181.975 Axial†	11.9	-1.8	-7.4598 µg/L	-7.4598 ppb	14:31:15
3	Sb 206.836†	23.2	2.7	3.2394 µg/L	3.2394 ppb	14:31:15
3	Se 196.026†	23.2	8.4	11.569 µg/L	11.569 ppb	14:31:15
3	SiO2†	1408.7	54.4	12.745 µg/L	12.745 ppb	14:30:54
3	Si 251.611†	410.5	60.0	5.2632 µg/L	5.2632 ppb	14:31:15
3	Sn 189.927†	9.5	1.1	0.5795 µg/L	0.5795 ppb	14:31:15
3	Sr 421.552†	142.0	-2.6	-0.0131 µg/L	-0.0131 ppb	14:29:15
3	Ti 334.940†	284.2	274.1	0.7799 µg/L	0.7799 ppb	14:30:54
3	Tl 190.801†	-23.1	2.8	3.5918 µg/L	3.5918 ppb	14:31:15
3	U 409.014†	80.8	-32.8	-3.2399 µg/L	-3.2399 ppb	14:30:54
3	V 292.402†	-168.2	-3.8	-0.0393 µg/L	-0.0393 ppb	14:30:54
3	Zn 213.857†	557.2	36.2	1.0363 µg/L	1.0363 ppb	14:31:15

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1569502.6	98.562	%	0.1876				0.19%
Sc RADIAL	98133.1	99.2	%	0.24				0.24%
Y 371.029	1096587.7	98.557	%	0.2585				0.26%
Ag 328.068†	25.2	0.2350	µg/L	0.29904	0.2350	ppb	0.29904	127.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.3	-2.9204	µg/L	14.01281	-2.9204	ppb	14.01281	479.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.2995	µg/L	6.34886	-0.2995	ppb	6.34886	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	6.7	0.3554	µg/L	1.27289	0.3554	ppb	1.27289	358.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.4	0.4546	µg/L	0.24068	0.4546	ppb	0.24068	52.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	142.2	0.1093	µg/L	0.10900	0.1093	ppb	0.10900	99.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-12.6	-4.8079	µg/L	2.00129	-4.8079	ppb	2.00129	41.62%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.4	0.4226	µg/L	0.18405	0.4226	ppb	0.18405	43.55%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                5.8      0.3211 µg/L       0.23066      0.3211 ppb        0.23066  71.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               17.4      0.4882 µg/L       0.33098      0.4882 ppb        0.33098  67.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                9.2      0.0792 µg/L       0.24045      0.0792 ppb        0.24045 303.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         5.1     47.158 µg/L        8.7584     47.158 ppb         8.7584  18.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          4.6      2.7166 µg/L      20.70831      2.7166 ppb       20.70831 762.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.2     38.439 µg/L        6.6677     38.439 ppb         6.6677  17.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               95.4      0.3766 µg/L       0.14946      0.3766 ppb        0.14946  39.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               10.5      1.3193 µg/L       0.17791      1.3193 ppb        0.17791  13.49%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -9.4     -4.0269 µg/L       3.13564     -4.0269 ppb        3.13564  77.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               13.7      1.0394 µg/L       0.81441      1.0394 ppb        0.81441  78.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.2     -0.6017 µg/L       6.59963     -0.6017 ppb        6.59963 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                2.2      0.7719 µg/L       1.33891      0.7719 ppb        1.33891 173.47%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.5      6.0655 µg/L      12.33775      6.0655 ppb       12.33775 203.41%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.7      2.0698 µg/L       3.00411      2.0698 ppb        3.00411 145.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.2      9.7972 µg/L       6.31797      9.7972 ppb        6.31797  64.49%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     39.5      9.2672 µg/L       3.01176      9.2672 ppb        3.01176  32.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               39.7      3.4804 µg/L       1.64803      3.4804 ppb        1.64803  47.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.8      0.9003 µg/L       1.71646      0.9003 ppb        1.71646 190.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -14.1     -0.0717 µg/L       0.06368     -0.0717 ppb        0.06368  88.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              176.8      0.5015 µg/L       0.24493      0.5015 ppb        0.24493  48.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.4      0.4996 µg/L       2.67804      0.4996 ppb        2.67804 536.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -20.1     -1.9824 µg/L       3.23171     -1.9824 ppb        3.23171 163.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                13.2      0.1911 µg/L       0.20083      0.1911 ppb        0.20083 105.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               19.8      0.5644 µg/L       0.43822      0.5644 ppb        0.43822  77.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/27/2010 14:31:24
Data Type: Reprocessed on 2/27/2010 15:17:27

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1574208.3	1574208.3	98.857	%			14:33:19
1	Sc RADIAL	98364.6	98364.6	99.5	%			14:31:57
1	Y 371.029	1102985.7	1102985.7	99.132	%			14:33:19
1	Ag 328.068†	735.5	522.2	4.8215	µg/L	4.8215	ppb	14:33:25
1	Al 396.153Radial†	173.9	347.8	191.09	µg/L	191.09	ppb	14:31:57
1	As 188.979†	16.0	14.6	28.919	µg/L	28.919	ppb	14:33:45
1	B 249.677†	2104.2	790.2	44.857	µg/L	44.857	ppb	14:33:25
1	Ba 233.527†	165.3	195.0	5.4048	µg/L	5.4048	ppb	14:33:45
1	Be 313.107†	4192.1	6464.6	4.9760	µg/L	4.9760	ppb	14:33:25
1	Ca 317.933Radial†	885.6	527.5	201.93	µg/L	201.93	ppb	14:32:17
1	Cd 226.502†	20.6	162.7	5.1632	µg/L	5.1632	ppb	14:33:45
1	Co 228.616†	102.0	89.3	4.9759	µg/L	4.9759	ppb	14:33:45
1	Cr 267.716†	255.6	179.5	5.0461	µg/L	5.0461	ppb	14:33:45
1	Cu 324.752†	3960.5	1344.6	10.345	µg/L	10.345	ppb	14:33:25
1	Fe 238.204 Radial†	39.6	14.4	133.98	µg/L	133.98	ppb	14:32:17
1	K 766.490 Radial†	398.0	173.4	103.43	µg/L	103.43	ppb	14:31:57
1	Mg 279.077 IEC†	35.7	27.5	331.61	µg/L	331.61	ppb	14:32:17
1	Mn 257.610†	2082.5	2669.7	10.525	µg/L	10.525	ppb	14:33:25
1	Mo 202.031†	90.8	87.3	10.925	µg/L	10.925	ppb	14:33:45
1	Na 589.592 Radial†	946.4	704.8	302.83	µg/L	302.83	ppb	14:31:57
1	Ni 231.604†	358.3	72.8	5.5229	µg/L	5.5229	ppb	14:33:45
1	P 214.914†	86.5	64.3	161.92	µg/L	161.92	ppb	14:33:45
1	Pb 220.353†	75.1	35.0	11.940	µg/L	11.940	ppb	14:33:45
1	S 181.975 Axial†	40.8	27.5	114.53	µg/L	114.53	ppb	14:33:45
1	Sb 206.836†	26.0	5.5	6.6369	µg/L	6.6369	ppb	14:33:45
1	Se 196.026†	43.2	28.6	38.860	µg/L	38.860	ppb	14:33:45
1	SiO2†	2236.9	890.3	208.64	µg/L	208.64	ppb	14:33:25
1	Si 251.611†	1425.8	1086.6	95.253	µg/L	95.253	ppb	14:33:45
1	Sn 189.927†	29.3	21.2	10.720	µg/L	10.720	ppb	14:33:45
1	Sr 421.552†	1141.0	1000.8	5.0800	µg/L	5.0800	ppb	14:31:57
1	Ti 334.940†	1818.5	1825.7	5.1876	µg/L	5.1876	ppb	14:33:25
1	Tl 190.801†	-10.1	16.1	20.304	µg/L	20.304	ppb	14:33:45
1	U 409.014†	548.1	439.7	43.261	µg/L	43.261	ppb	14:33:25
1	V 292.402†	245.7	415.1	5.8066	µg/L	5.8066	ppb	14:33:25
1	Zn 213.857†	884.0	366.1	10.540	µg/L	10.540	ppb	14:33:45
2	Sc 361.383	1588142.0	1588142.0	99.732	%			14:33:51
2	Sc RADIAL	99566.2	99566.2	101	%			14:32:23
2	Y 371.029	1109866.1	1109866.1	99.750	%			14:33:51
2	Ag 328.068†	813.8	594.2	5.4756	µg/L	5.4756	ppb	14:33:56
2	Al 396.153Radial†	159.5	331.3	182.04	µg/L	182.04	ppb	14:32:23
2	As 188.979†	15.7	14.1	28.040	µg/L	28.040	ppb	14:34:17
2	B 249.677†	2056.4	723.7	41.077	µg/L	41.077	ppb	14:33:56
2	Ba 233.527†	158.1	186.3	5.1631	µg/L	5.1631	ppb	14:34:17
2	Be 313.107†	4175.1	6410.3	4.9344	µg/L	4.9344	ppb	14:33:56
2	Ca 317.933Radial†	878.3	509.6	195.06	µg/L	195.06	ppb	14:32:43
2	Cd 226.502†	24.2	166.1	5.2728	µg/L	5.2728	ppb	14:34:17
2	Co 228.616†	96.8	83.2	4.6371	µg/L	4.6371	ppb	14:34:17
2	Cr 267.716†	254.9	176.5	4.9625	µg/L	4.9625	ppb	14:34:17
2	Cu 324.752†	3919.7	1268.5	9.7587	µg/L	9.7587	ppb	14:33:56
2	Fe 238.204 Radial†	39.3	13.6	126.41	µg/L	126.41	ppb	14:32:43
2	K 766.490 Radial†	470.1	240.2	143.23	µg/L	143.23	ppb	14:32:23
2	Mg 279.077 IEC†	36.1	27.6	331.86	µg/L	331.86	ppb	14:32:43
2	Mn 257.610†	2038.5	2607.1	10.278	µg/L	10.278	ppb	14:33:56
2	Mo 202.031†	89.2	84.9	10.622	µg/L	10.622	ppb	14:34:17
2	Na 589.592 Radial†	982.9	729.6	313.46	µg/L	313.46	ppb	14:32:23
2	Ni 231.604†	360.7	72.0	5.4665	µg/L	5.4665	ppb	14:34:17
2	P 214.914†	84.0	61.0	153.54	µg/L	153.54	ppb	14:34:17
2	Pb 220.353†	68.6	27.8	9.4761	µg/L	9.4761	ppb	14:34:17

2	S 181.975 Axial†	43.2	29.5	122.92 µg/L	122.92 ppb	14:34:17
2	Sb 206.836†	28.6	8.0	9.5366 µg/L	9.5366 ppb	14:34:17
2	Se 196.026†	39.9	24.9	33.892 µg/L	33.892 ppb	14:34:17
2	SiO2†	2243.2	876.8	205.46 µg/L	205.46 ppb	14:33:56
2	Si 251.611†	1425.5	1073.6	94.119 µg/L	94.119 ppb	14:34:17
2	Sn 189.927†	27.9	19.5	9.9041 µg/L	9.9041 ppb	14:34:17
2	Sr 421.552†	1164.8	1010.6	5.1297 µg/L	5.1297 ppb	14:32:23
2	Ti 334.940†	1693.2	1684.0	4.7830 µg/L	4.7830 ppb	14:33:56
2	Tl 190.801†	-10.2	16.1	20.349 µg/L	20.349 ppb	14:34:17
2	U 409.014†	602.6	489.5	48.166 µg/L	48.166 ppb	14:33:56
2	V 292.402†	208.4	375.6	5.2699 µg/L	5.2699 ppb	14:33:56
2	Zn 213.857†	884.9	359.1	10.340 µg/L	10.340 ppb	14:34:17
3	Sc 361.383	1586418.2	1586418.2	99.624 %		14:34:22
3	Sc RADIAL	98769.1	98769.1	99.9 %		14:32:49
3	Y 371.029	1111531.7	1111531.7	99.900 %		14:34:22
3	Ag 328.068†	735.8	516.8	4.7617 µg/L	4.7617 ppb	14:34:28
3	Al 396.153Radial†	186.0	359.1	197.37 µg/L	197.37 ppb	14:32:49
3	As 188.979†	15.5	13.9	27.619 µg/L	27.619 ppb	14:34:48
3	B 249.677†	2079.9	749.4	42.548 µg/L	42.548 ppb	14:34:28
3	Ba 233.527†	136.9	165.1	4.5770 µg/L	4.5770 ppb	14:34:48
3	Be 313.107†	3768.1	6006.3	4.6234 µg/L	4.6234 ppb	14:34:28
3	Ca 317.933Radial†	887.1	525.3	201.10 µg/L	201.10 ppb	14:33:09
3	Cd 226.502†	-2.2	139.7	4.4318 µg/L	4.4318 ppb	14:34:48
3	Co 228.616†	88.5	74.9	4.1761 µg/L	4.1761 ppb	14:34:48
3	Cr 267.716†	236.4	158.3	4.4491 µg/L	4.4491 ppb	14:34:48
3	Cu 324.752†	3867.3	1220.2	9.3850 µg/L	9.3850 ppb	14:34:28
3	Fe 238.204 Radial†	37.3	11.9	110.88 µg/L	110.88 ppb	14:33:09
3	K 766.490 Radial†	463.4	237.2	141.48 µg/L	141.48 ppb	14:32:49
3	Mg 279.077 IEC†	35.5	27.2	327.83 µg/L	327.83 ppb	14:33:09
3	Mn 257.610†	1917.6	2488.0	9.8069 µg/L	9.8069 ppb	14:34:28
3	Mo 202.031†	74.7	70.5	8.8180 µg/L	8.8180 ppb	14:34:48
3	Na 589.592 Radial†	965.1	719.7	309.20 µg/L	309.20 ppb	14:32:49
3	Ni 231.604†	340.3	51.8	3.9349 µg/L	3.9349 ppb	14:34:48
3	P 214.914†	72.8	49.8	125.41 µg/L	125.41 ppb	14:34:48
3	Pb 220.353†	71.5	30.8	10.512 µg/L	10.512 ppb	14:34:48
3	S 181.975 Axial†	34.1	20.5	85.162 µg/L	85.162 ppb	14:34:48
3	Sb 206.836†	31.4	10.7	12.771 µg/L	12.771 ppb	14:34:48
3	Se 196.026†	34.1	19.2	26.065 µg/L	26.065 ppb	14:34:48
3	SiO2†	2167.6	803.4	188.27 µg/L	188.27 ppb	14:34:28
3	Si 251.611†	1313.8	963.0	84.422 µg/L	84.422 ppb	14:34:48
3	Sn 189.927†	26.0	17.7	8.9641 µg/L	8.9641 ppb	14:34:48
3	Sr 421.552†	1101.8	956.9	4.8571 µg/L	4.8571 ppb	14:32:49
3	Ti 334.940†	1617.6	1609.9	4.5719 µg/L	4.5719 ppb	14:34:28
3	Tl 190.801†	-9.4	16.8	21.243 µg/L	21.243 ppb	14:34:48
3	U 409.014†	543.0	430.3	42.336 µg/L	42.336 ppb	14:34:28
3	V 292.402†	158.2	325.4	4.5636 µg/L	4.5636 ppb	14:34:28
3	Zn 213.857†	838.7	313.7	9.0317 µg/L	9.0317 ppb	14:34:48

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1582922.8	99.404	%	0.4770				0.48%
Sc RADIAL	98899.9	100	%	0.6				0.62%
Y 371.029	1108127.8	99.594	%	0.4072				0.41%
Ag 328.068†	544.4	5.0196	µg/L	0.39603	5.0196	ppb	0.39603	7.89%
QC value within limits for Ag 328.068 Recovery = 100.39%								
Al 396.153Radial†	346.1	190.17	µg/L	7.704	190.17	ppb	7.704	4.05%
QC value within limits for Al 396.153Radial Recovery = 95.08%								
As 188.979†	14.2	28.193	µg/L	0.6629	28.193	ppb	0.6629	2.35%
QC value within limits for As 188.979 Recovery = 93.98%								
B 249.677†	754.5	42.827	µg/L	1.9053	42.827	ppb	1.9053	4.45%
QC value within limits for B 249.677 Recovery = 85.65%								
Ba 233.527†	182.1	5.0483	µg/L	0.42570	5.0483	ppb	0.42570	8.43%
QC value within limits for Ba 233.527 Recovery = 100.97%								
Be 313.107†	6293.8	4.8446	µg/L	0.19270	4.8446	ppb	0.19270	3.98%
QC value within limits for Be 313.107 Recovery = 96.89%								
Ca 317.933Radial†	520.8	199.36	µg/L	3.748	199.36	ppb	3.748	1.88%
QC value within limits for Ca 317.933Radial Recovery = 99.68%								
Cd 226.502†	156.2	4.9559	µg/L	0.45721	4.9559	ppb	0.45721	9.23%
QC value within limits for Cd 226.502 Recovery = 99.12%								

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Co 228.616†                82.5      4.5964 µg/L       0.40147      4.5964 ppb        0.40147   8.73%
   QC value within limits for Co 228.616  Recovery = 91.93%
Cr 267.716†               171.4      4.8192 µg/L       0.32326      4.8192 ppb        0.32326   6.71%
   QC value within limits for Cr 267.716  Recovery = 96.38%
Cu 324.752†              1277.8      9.8294 µg/L       0.48366      9.8294 ppb        0.48366   4.92%
   QC value within limits for Cu 324.752  Recovery = 98.29%
Fe 238.204 Radial†         13.3      123.76 µg/L        11.778      123.76 ppb         11.778   9.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 123.76%
K 766.490 Radial†         216.9      129.38 µg/L        22.493      129.38 ppb         22.493  17.39%
   QC value within limits for K 766.490 Radial  Recovery = 86.25%
Mg 279.077 IEC†            27.5      330.43 µg/L         2.261      330.43 ppb          2.261   0.68%
   QC value within limits for Mg 279.077 IEC  Recovery = 110.14%
Mn 257.610†              2588.3      10.203 µg/L        0.3651      10.203 ppb         0.3651   3.58%
   QC value within limits for Mn 257.610  Recovery = 102.03%
Mo 202.031†                80.9      10.122 µg/L        1.1390      10.122 ppb         1.1390  11.25%
   QC value within limits for Mo 202.031  Recovery = 101.22%
Na 589.592 Radial†        718.0      308.50 µg/L         5.353      308.50 ppb          5.353   1.74%
   QC value within limits for Na 589.592 Radial  Recovery = 102.83%
Ni 231.604†                65.5      4.9748 µg/L       0.90101      4.9748 ppb        0.90101  18.11%
   QC value within limits for Ni 231.604  Recovery = 99.50%
P 214.914†                 58.4      146.96 µg/L        19.126      146.96 ppb         19.126  13.01%
   QC value within limits for P 214.914  Recovery = 97.97%
Pb 220.353†                31.2      10.643 µg/L        1.2369      10.643 ppb         1.2369  11.62%
   QC value within limits for Pb 220.353  Recovery = 106.43%
S 181.975 Axial†           25.8      107.54 µg/L        19.825      107.54 ppb         19.825  18.44%
   QC value within limits for S 181.975 Axial  Recovery = 107.54%
Sb 206.836†                 8.1      9.6483 µg/L       3.06880      9.6483 ppb        3.06880  31.81%
   QC value within limits for Sb 206.836  Recovery = 96.48%
Se 196.026†                24.2      32.939 µg/L        6.4505      32.939 ppb         6.4505  19.58%
   QC value within limits for Se 196.026  Recovery = 109.80%
SiO2†                     856.8      200.79 µg/L        10.960      200.79 ppb         10.960   5.46%
   QC value within limits for SiO2  Recovery = 94.27%
Si 251.611†              1041.1      91.264 µg/L        5.9529      91.264 ppb         5.9529   6.52%
   QC value within limits for Si 251.611  Recovery = 91.26%
Sn 189.927†                19.5      9.8626 µg/L       0.87846      9.8626 ppb        0.87846   8.91%
   QC value within limits for Sn 189.927  Recovery = 98.63%
Sr 421.552†               989.5      5.0223 µg/L       0.14516      5.0223 ppb        0.14516   2.89%
   QC value within limits for Sr 421.552  Recovery = 100.45%
Ti 334.940†              1706.6      4.8475 µg/L       0.31286      4.8475 ppb        0.31286   6.45%
   QC value within limits for Ti 334.940  Recovery = 96.95%
Tl 190.801†                16.3      20.632 µg/L        0.5294      20.632 ppb         0.5294   2.57%
   QC value within limits for Tl 190.801  Recovery = 103.16%
U 409.014†                453.2      44.588 µg/L        3.1336      44.588 ppb         3.1336   7.03%
   QC value within limits for U 409.014  Recovery = 89.18%
V 292.402†                372.0      5.2134 µg/L       0.62343      5.2134 ppb        0.62343  11.96%
   QC value within limits for V 292.402  Recovery = 104.27%
Zn 213.857†               346.3      9.9705 µg/L       0.81921      9.9705 ppb        0.81921   8.22%
   QC value within limits for Zn 213.857  Recovery = 99.71%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/27/2010 14:34:58
Data Type: Reprocessed on 2/27/2010 15:18:50

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	1477230.8	1477230.8	92.767	%			14:36:14
1	Sc RADIAL	94185.2	94185.2	95.3	%			14:35:40
1	Y 371.029	1032570.0	1032570.0	92.803	%			14:36:14
1	Ag 328.068†	-1343.5	-1670.0	-0.4598	µg/L	-0.4598	ppb	14:36:14
1	Al 396.153Radial†	944417.4	991643.6	545510	µg/L	545510	ppb	14:35:34
1	As 188.979†	25.5	25.9	-34.366	µg/L	-34.366	ppb	14:36:34
1	B 249.677†	2514.9	1372.7	-22.596	µg/L	-22.596	ppb	14:36:14
1	Ba 233.527†	225.2	270.5	7.4776	µg/L	7.4776	ppb	14:36:34
1	Be 313.107†	-2611.6	-591.2	-0.4640	µg/L	-0.4640	ppb	14:36:14
1	Ca 317.933Radial†	1266031.5	1328745.5	508650	µg/L	508650	ppb	14:35:34
1	Cd 226.502†	697.0	893.3	6.6036	µg/L	6.6036	ppb	14:36:34
1	Co 228.616†	65.9	57.1	3.1287	µg/L	3.1287	ppb	14:36:34
1	Cr 267.716†	34.4	-41.9	-1.1806	µg/L	-1.1806	ppb	14:36:34
1	Cu 324.752†	-2015.4	-4834.2	-0.8485	µg/L	-0.8485	ppb	14:36:14
1	Fe 238.204 Radial†	19750.8	20709.4	192830	µg/L	192830	ppb	14:35:40
1	K 766.490 Radial†	139.5	-80.2	-47.836	µg/L	-47.836	ppb	14:35:40
1	Mg 279.077 IEC†	40697.0	42716.3	513930	µg/L	513930	ppb	14:35:40
1	Mn 257.610†	4763.2	5697.7	-0.7434	µg/L	-0.7434	ppb	14:36:14
1	Mo 202.031†	-53.9	-62.6	-0.4985	µg/L	-0.4985	ppb	14:36:34
1	Na 589.592 Radial†	266.7	33.5	14.410	µg/L	14.410	ppb	14:35:40
1	Ni 231.604†	239.4	-31.6	0.1041	µg/L	0.1041	ppb	14:36:34
1	P 214.914†	63.9	45.6	119.22	µg/L	119.22	ppb	14:36:34
1	Pb 220.353†	-66.0	-112.1	5.8486	µg/L	5.8486	ppb	14:36:34
1	S 181.975 Axial†	-25.5	-41.3	-172.02	µg/L	-172.02	ppb	14:36:34
1	Sb 206.836†	23.0	4.1	-2.9317	µg/L	-2.9317	ppb	14:36:34
1	Se 196.026†	-138.9	-164.8	28.403	µg/L	28.403	ppb	14:36:34
1	SiO2†	1097.3	-189.5	-44.415	µg/L	-44.415	ppb	14:36:34
1	Si 251.611†	366.3	39.2	3.4345	µg/L	3.4345	ppb	14:36:34
1	Sn 189.927†	-91.6	-107.2	5.5302	µg/L	5.5302	ppb	14:36:34
1	Sr 421.552†	856.4	753.0	3.8219	µg/L	3.8219	ppb	14:35:40
1	Ti 334.940†	7536.3	8110.2	-9.3328	µg/L	-9.3328	ppb	14:36:14
1	Tl 190.801†	28.6	57.0	0.6371	µg/L	0.6371	ppb	14:36:34
1	U 409.014†	44.7	-66.6	-64.385	µg/L	-64.385	ppb	14:36:14
1	V 292.402†	-382.2	-245.4	3.6603	µg/L	3.6603	ppb	14:36:34
1	Zn 213.857†	1701.7	1306.2	-0.3992	µg/L	-0.3992	ppb	14:36:34
2	Sc 361.383	1463635.7	1463635.7	91.913	%			14:36:41
2	Sc RADIAL	94293.6	94293.6	95.4	%			14:35:51
2	Y 371.029	1022810.2	1022810.2	91.926	%			14:36:41
2	Ag 328.068†	-1272.6	-1606.4	0.1825	µg/L	0.1825	ppb	14:36:41
2	Al 396.153Radial†	946862.1	993067.1	546300	µg/L	546300	ppb	14:35:46
2	As 188.979†	28.3	29.2	-28.048	µg/L	-28.048	ppb	14:37:02
2	B 249.677†	2434.5	1310.4	-26.533	µg/L	-26.533	ppb	14:36:41
2	Ba 233.527†	225.4	272.9	7.5459	µg/L	7.5459	ppb	14:37:02
2	Be 313.107†	-2729.9	-746.1	-0.5836	µg/L	-0.5836	ppb	14:36:41
2	Ca 317.933Radial†	1271613.8	1333071.1	510310	µg/L	510310	ppb	14:35:46
2	Cd 226.502†	695.4	898.5	6.6840	µg/L	6.6840	ppb	14:37:02
2	Co 228.616†	66.0	57.9	3.1722	µg/L	3.1722	ppb	14:37:02
2	Cr 267.716†	14.8	-62.9	-1.7688	µg/L	-1.7688	ppb	14:37:02
2	Cu 324.752†	-1962.1	-4796.5	-0.4160	µg/L	-0.4160	ppb	14:36:41
2	Fe 238.204 Radial†	19851.2	20790.9	193590	µg/L	193590	ppb	14:35:51
2	K 766.490 Radial†	75.6	-147.4	-87.930	µg/L	-87.930	ppb	14:35:51
2	Mg 279.077 IEC†	40783.3	42757.7	514430	µg/L	514430	ppb	14:35:51
2	Mn 257.610†	4719.3	5697.6	-0.7322	µg/L	-0.7322	ppb	14:36:41
2	Mo 202.031†	-64.0	-74.1	-1.9137	µg/L	-1.9137	ppb	14:37:02
2	Na 589.592 Radial†	260.2	26.4	11.333	µg/L	11.333	ppb	14:35:51
2	Ni 231.604†	243.5	-24.7	0.6335	µg/L	0.6335	ppb	14:37:02
2	P 214.914†	66.3	48.9	127.23	µg/L	127.23	ppb	14:37:02
2	Pb 220.353†	-66.4	-113.2	5.5211	µg/L	5.5211	ppb	14:37:02

2	S 181.975 Axial†	-25.5	-41.6	-173.14	µg/L	-173.14	ppb	14:37:02
2	Sb 206.836†	26.6	8.2	1.8755	µg/L	1.8755	ppb	14:37:02
2	Se 196.026†	-141.5	-169.1	24.710	µg/L	24.710	ppb	14:37:02
2	SiO2†	1104.4	-170.8	-40.033	µg/L	-40.033	ppb	14:37:02
2	Si 251.611†	370.6	47.4	4.1585	µg/L	4.1585	ppb	14:37:02
2	Sn 189.927†	-86.5	-102.6	7.9162	µg/L	7.9162	ppb	14:37:02
2	Sr 421.552†	874.5	770.9	3.9130	µg/L	3.9130	ppb	14:35:51
2	Ti 334.940†	7672.6	8333.9	-8.7069	µg/L	-8.7069	ppb	14:36:41
2	Tl 190.801†	21.9	50.1	-8.3321	µg/L	-8.3321	ppb	14:37:02
2	U 409.014†	30.2	-81.8	-66.095	µg/L	-66.095	ppb	14:36:41
2	V 292.402†	-360.3	-225.3	3.9477	µg/L	3.9477	ppb	14:37:02
2	Zn 213.857†	1702.4	1324.1	0.0499	µg/L	0.0499	ppb	14:37:02
3	Sc 361.383	1472815.6	1472815.6	92.490	%			14:37:08
3	Sc RADIAL	94079.9	94079.9	95.1	%			14:36:03
3	Y 371.029	1028334.9	1028334.9	92.422	%			14:37:08
3	Ag 328.068†	-1266.4	-1591.0	0.2674	µg/L	0.2674	ppb	14:37:08
3	Al 396.153Radial†	948103.1	996627.2	548260	µg/L	548260	ppb	14:35:57
3	As 188.979†	43.8	45.8	4.7305	µg/L	4.7305	ppb	14:37:29
3	B 249.677†	2420.2	1278.4	-27.978	µg/L	-27.978	ppb	14:37:08
3	Ba 233.527†	234.3	281.0	7.7709	µg/L	7.7709	ppb	14:37:29
3	Be 313.107†	-2641.2	-631.6	-0.4953	µg/L	-0.4953	ppb	14:37:08
3	Ca 317.933Radial†	1272794.6	1337341.6	511950	µg/L	511950	ppb	14:35:57
3	Cd 226.502†	691.3	889.4	6.4735	µg/L	6.4735	ppb	14:37:29
3	Co 228.616†	69.9	61.6	3.3783	µg/L	3.3783	ppb	14:37:29
3	Cr 267.716†	-20.5	-101.2	-2.8460	µg/L	-2.8460	ppb	14:37:29
3	Cu 324.752†	-2002.9	-4827.2	-0.7865	µg/L	-0.7865	ppb	14:37:08
3	Fe 238.204 Radial†	19733.1	20714.0	192870	µg/L	192870	ppb	14:36:03
3	K 766.490 Radial†	169.4	-48.7	-29.018	µg/L	-29.018	ppb	14:36:03
3	Mg 279.077 IEC†	40660.3	42725.6	514050	µg/L	514050	ppb	14:36:03
3	Mn 257.610†	4696.5	5640.9	-0.9722	µg/L	-0.9722	ppb	14:37:08
3	Mo 202.031†	-60.5	-69.9	-1.4090	µg/L	-1.4090	ppb	14:37:29
3	Na 589.592 Radial†	321.0	90.9	39.035	µg/L	39.035	ppb	14:36:03
3	Ni 231.604†	230.7	-40.3	-0.5561	µg/L	-0.5561	ppb	14:37:29
3	P 214.914†	70.1	52.5	137.48	µg/L	137.48	ppb	14:37:29
3	Pb 220.353†	-57.8	-103.5	8.9889	µg/L	8.9889	ppb	14:37:29
3	S 181.975 Axial†	-22.0	-37.6	-156.64	µg/L	-156.64	ppb	14:37:29
3	Sb 206.836†	18.1	-1.2	-9.2097	µg/L	-9.2097	ppb	14:37:29
3	Se 196.026†	-121.8	-146.8	52.609	µg/L	52.609	ppb	14:37:29
3	SiO2†	1118.7	-162.9	-38.176	µg/L	-38.176	ppb	14:37:29
3	Si 251.611†	383.7	59.2	5.1855	µg/L	5.1855	ppb	14:37:29
3	Sn 189.927†	-97.3	-113.7	2.3115	µg/L	2.3115	ppb	14:37:29
3	Sr 421.552†	828.6	724.8	3.6789	µg/L	3.6789	ppb	14:36:03
3	Ti 334.940†	7587.1	8189.4	-9.0628	µg/L	-9.0628	ppb	14:37:08
3	Tl 190.801†	13.3	40.6	-20.659	µg/L	-20.659	ppb	14:37:29
3	U 409.014†	55.4	-54.8	-63.430	µg/L	-63.430	ppb	14:37:08
3	V 292.402†	-364.8	-227.9	3.8916	µg/L	3.8916	ppb	14:37:29
3	Zn 213.857†	1713.0	1323.9	0.1078	µg/L	0.1078	ppb	14:37:29

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1471227.3	92.390	%	0.4355				0.47%
Sc RADIAL	94186.2	95.3	%	0.11				0.11%
Y 371.029	1027905.0	92.384	%	0.4399				0.48%
Ag 328.068†	-1622.5	-0.0033	µg/L	0.39758	-0.0033	ppb	0.39758	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	993779.3	546690	µg/L	1412.1	546690	ppb	1412.1	0.26%
QC value within limits for Al 396.153Radial Recovery = 109.34%								
As 188.979†	33.6	-19.228	µg/L	20.9877	-19.228	ppb	20.9877	109.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1320.5	-25.702	µg/L	2.7854	-25.702	ppb	2.7854	10.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	274.8	7.5981	µg/L	0.15345	7.5981	ppb	0.15345	2.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-656.3	-0.5143	µg/L	0.06200	-0.5143	ppb	0.06200	12.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1333052.7	510300	µg/L	1645.3	510300	ppb	1645.3	0.32%
QC value within limits for Ca 317.933Radial Recovery = 102.06%								
Cd 226.502†	893.7	6.5870	µg/L	0.10626	6.5870	ppb	0.10626	1.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†              58.9      3.2264 µg/L       0.13334      3.2264 ppb        0.13334   4.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -68.7     -1.9318 µg/L       0.84456     -1.9318 ppb        0.84456  43.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -4819.3     -0.6836 µg/L       0.23386     -0.6836 ppb        0.23386  34.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    20738.1      193100 µg/L         426.1      193100 ppb          426.1   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.55%
K 766.490 Radial†       -92.1     -54.928 µg/L       30.0896     -54.928 ppb        30.0896  54.78%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       42733.2      514140 µg/L         260.6      514140 ppb          260.6   0.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.83%
Mn 257.610†            5678.7     -0.8159 µg/L       0.13544     -0.8159 ppb        0.13544  16.60%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -68.9     -1.2737 µg/L       0.71720     -1.2737 ppb        0.71720  56.31%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       50.3      21.593 µg/L       15.1835      21.593 ppb        15.1835  70.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -32.2      0.0605 µg/L       0.59597      0.0605 ppb        0.59597 984.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               49.0      127.98 µg/L         9.151      127.98 ppb          9.151   7.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -109.6      6.7862 µg/L       1.91460      6.7862 ppb        1.91460  28.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -40.2     -167.27 µg/L         9.218     -167.27 ppb          9.218   5.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.7     -3.4220 µg/L       5.55885     -3.4220 ppb        5.55885 162.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -160.2      35.241 µg/L       15.1543      35.241 ppb        15.1543  43.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                  -174.4     -40.875 µg/L        3.2038     -40.875 ppb         3.2038   7.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              48.6      4.2595 µg/L       0.87984      4.2595 ppb        0.87984  20.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -107.8      5.2526 µg/L       2.81265      5.2526 ppb        2.81265  53.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             749.6      3.8046 µg/L       0.11799      3.8046 ppb        0.11799   3.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            8211.2     -9.0342 µg/L       0.31390     -9.0342 ppb        0.31390   3.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              49.3     -9.4514 µg/L      10.69222     -9.4514 ppb       10.69222 113.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -67.7     -64.637 µg/L        1.3502     -64.637 ppb         1.3502   2.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -232.9      3.8332 µg/L       0.15236      3.8332 ppb        0.15236   3.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            1318.1     -0.0805 µg/L       0.27754     -0.0805 ppb        0.27754 344.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/27/2010 14:37:38
Data Type: Reprocessed on 2/27/2010 15:19:59

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1465984.1	1465984.1	92.061	%			14:38:52
1	Sc RADIAL	94724.6	94724.6	95.8	%			14:38:17
1	Y 371.029	1024209.4	1024209.4	92.052	%			14:38:52
1	Ag 328.068†	24591.7	26490.6	260.19	µg/L	260.19	ppb	14:39:12
1	Al 396.153Radial†	919265.6	959743.4	527960	µg/L	527960	ppb	14:38:12
1	As 188.979†	276.0	298.1	507.51	µg/L	507.51	ppb	14:39:12
1	B 249.677†	10741.9	10330.0	488.22	µg/L	488.22	ppb	14:38:52
1	Ba 233.527†	16471.5	17919.6	496.76	µg/L	496.76	ppb	14:39:12
1	Be 313.107†	287689.8	314723.5	242.15	µg/L	242.15	ppb	14:38:52
1	Ca 317.933Radial†	1234945.5	1288728.6	493340	µg/L	493340	ppb	14:38:12
1	Cd 226.502†	14167.7	15531.4	472.59	µg/L	472.59	ppb	14:39:12
1	Co 228.616†	7402.0	8026.4	446.79	µg/L	446.79	ppb	14:39:12
1	Cr 267.716†	15934.9	17230.0	484.37	µg/L	484.37	ppb	14:39:12
1	Cu 324.752†	63510.1	66325.3	544.94	µg/L	544.94	ppb	14:38:52
1	Fe 238.204 Radial†	19685.6	20523.2	191110	µg/L	191110	ppb	14:38:17
1	K 766.490 Radial†	8564.3	8713.2	5196.2	µg/L	5196.2	ppb	14:38:17
1	Mg 279.077 IEC†	40309.0	42068.0	506140	µg/L	506140	ppb	14:38:17
1	Mn 257.610†	116326.9	126921.8	478.27	µg/L	478.27	ppb	14:38:52
1	Mo 202.031†	3751.6	4070.6	516.22	µg/L	516.22	ppb	14:39:12
1	Na 589.592 Radial†	12003.4	12283.2	5277.3	µg/L	5277.3	ppb	14:38:17
1	Ni 231.604†	5930.2	6151.9	469.24	µg/L	469.24	ppb	14:39:12
1	P 214.914†	1010.1	1074.0	2671.3	µg/L	2671.3	ppb	14:39:12
1	Pb 220.353†	1244.3	1310.7	490.72	µg/L	490.72	ppb	14:39:12
1	S 181.975 Axial†	566.4	601.4	2504.4	µg/L	2504.4	ppb	14:39:12
1	Sb 206.836†	440.0	457.2	536.28	µg/L	536.28	ppb	14:39:12
1	Se 196.026†	1545.2	1663.4	2500.6	µg/L	2500.6	ppb	14:39:12
1	SiO2†	43635.1	46025.6	10786	µg/L	10786	ppb	14:38:52
1	Si 251.611†	53663.7	57935.8	5078.9	µg/L	5078.9	ppb	14:38:52
1	Sn 189.927†	863.6	929.6	527.80	µg/L	527.80	ppb	14:39:12
1	Sr 421.552†	93692.5	97654.3	495.67	µg/L	495.67	ppb	14:38:17
1	Ti 334.940†	170621.5	185321.8	496.79	µg/L	496.79	ppb	14:38:52
1	Tl 190.801†	356.6	413.7	457.44	µg/L	457.44	ppb	14:39:12
1	U 409.014†	4456.4	4725.9	408.61	µg/L	408.61	ppb	14:38:52
1	V 292.402†	34029.1	37130.3	518.89	µg/L	518.89	ppb	14:39:12
1	Zn 213.857†	16765.3	17683.0	471.60	µg/L	471.60	ppb	14:39:12
2	Sc 361.383	1461387.0	1461387.0	91.772	%			14:39:19
2	Sc RADIAL	95211.5	95211.5	96.3	%			14:38:29
2	Y 371.029	1021200.8	1021200.8	91.781	%			14:39:19
2	Ag 328.068†	24663.5	26653.0	261.69	µg/L	261.69	ppb	14:39:40
2	Al 396.153Radial†	920114.9	955717.9	525740	µg/L	525740	ppb	14:38:23
2	As 188.979†	275.2	298.3	508.22	µg/L	508.22	ppb	14:39:40
2	B 249.677†	10771.0	10398.4	492.11	µg/L	492.11	ppb	14:39:19
2	Ba 233.527†	16508.7	18016.5	499.45	µg/L	499.45	ppb	14:39:40
2	Be 313.107†	289516.9	317697.4	244.44	µg/L	244.44	ppb	14:39:19
2	Ca 317.933Radial†	1232969.6	1280083.8	490030	µg/L	490030	ppb	14:38:23
2	Cd 226.502†	14214.9	15631.2	475.76	µg/L	475.76	ppb	14:39:40
2	Co 228.616†	7409.1	8059.4	448.62	µg/L	448.62	ppb	14:39:40
2	Cr 267.716†	15968.3	17320.9	486.92	µg/L	486.92	ppb	14:39:40
2	Cu 324.752†	63719.6	66770.6	548.36	µg/L	548.36	ppb	14:39:19
2	Fe 238.204 Radial†	19788.0	20524.6	191120	µg/L	191120	ppb	14:38:29
2	K 766.490 Radial†	8576.6	8680.2	5176.5	µg/L	5176.5	ppb	14:38:29
2	Mg 279.077 IEC†	40593.0	42147.7	507100	µg/L	507100	ppb	14:38:29
2	Mn 257.610†	117064.3	128122.7	482.95	µg/L	482.95	ppb	14:39:19
2	Mo 202.031†	3764.5	4097.5	519.58	µg/L	519.58	ppb	14:39:40
2	Na 589.592 Radial†	12057.2	12275.0	5273.8	µg/L	5273.8	ppb	14:38:29
2	Ni 231.604†	5940.2	6183.0	471.60	µg/L	471.60	ppb	14:39:40
2	P 214.914†	1021.3	1089.6	2710.1	µg/L	2710.1	ppb	14:39:40
2	Pb 220.353†	1254.8	1326.4	495.90	µg/L	495.90	ppb	14:39:40

2	S 181.975 Axial†	584.3	622.9	2593.8 µg/L	2593.8 ppb		14:39:40
2	Sb 206.836†	430.9	448.7	526.36 µg/L	526.36 ppb		14:39:40
2	Se 196.026†	1545.9	1669.4	2508.4 µg/L	2508.4 ppb		14:39:40
2	SiO2†	43965.3	46534.6	10905 µg/L	10905 ppb		14:39:19
2	Si 251.611†	53967.8	58450.6	5124.0 µg/L	5124.0 ppb		14:39:19
2	Sn 189.927†	874.4	944.4	535.37 µg/L	535.37 ppb		14:39:40
2	Sr 421.552†	94182.5	97663.0	495.72 µg/L	495.72 ppb		14:38:29
2	Ti 334.940†	171816.1	187206.5	502.04 µg/L	502.04 ppb		14:39:19
2	Tl 190.801†	350.3	408.0	451.05 µg/L	451.05 ppb		14:39:40
2	U 409.014†	4547.7	4840.7	420.11 µg/L	420.11 ppb		14:39:19
2	V 292.402†	34050.6	37270.0	520.84 µg/L	520.84 ppb		14:39:40
2	Zn 213.857†	16810.2	17789.2	474.61 µg/L	474.61 ppb		14:39:40
3	Sc 361.383	1474854.2	1474854.2	92.618 %			14:39:46
3	Sc RADIAL	95333.9	95333.9	96.4 %			14:38:40
3	Y 371.029	1031112.6	1031112.6	92.672 %			14:39:46
3	Ag 328.068†	24597.7	26336.5	258.67 µg/L	258.67 ppb		14:40:07
3	Al 396.153Radial†	925556.0	960134.7	528170 µg/L	528170 ppb		14:38:34
3	As 188.979†	279.0	299.6	510.57 µg/L	510.57 ppb		14:40:07
3	B 249.677†	10755.2	10274.2	485.66 µg/L	485.66 ppb		14:39:46
3	Ba 233.527†	16460.4	17800.1	493.45 µg/L	493.45 ppb		14:40:07
3	Be 313.107†	290008.3	315347.3	242.63 µg/L	242.63 ppb		14:39:46
3	Ca 317.933Radial†	1245100.1	1291021.5	494210 µg/L	494210 ppb		14:38:34
3	Cd 226.502†	14143.9	15413.2	468.97 µg/L	468.97 ppb		14:40:07
3	Co 228.616†	7385.2	7960.0	443.08 µg/L	443.08 ppb		14:40:07
3	Cr 267.716†	15913.3	17102.6	480.78 µg/L	480.78 ppb		14:40:07
3	Cu 324.752†	63943.0	66377.8	545.12 µg/L	545.12 ppb		14:39:46
3	Fe 238.204 Radial†	19689.8	20396.3	189920 µg/L	189920 ppb		14:38:40
3	K 766.490 Radial†	8608.5	8701.8	5189.4 µg/L	5189.4 ppb		14:38:40
3	Mg 279.077 IEC†	40359.2	41851.2	503530 µg/L	503530 ppb		14:38:40
3	Mn 257.610†	117198.6	127103.0	479.09 µg/L	479.09 ppb		14:39:46
3	Mo 202.031†	3764.4	4059.9	514.84 µg/L	514.84 ppb		14:40:07
3	Na 589.592 Radial†	12034.2	12235.1	5256.7 µg/L	5256.7 ppb		14:38:40
3	Ni 231.604†	5935.9	6119.4	466.76 µg/L	466.76 ppb		14:40:07
3	P 214.914†	1012.5	1069.9	2661.9 µg/L	2661.9 ppb		14:40:07
3	Pb 220.353†	1260.5	1320.1	493.92 µg/L	493.92 ppb		14:40:07
3	S 181.975 Axial†	565.4	596.7	2484.5 µg/L	2484.5 ppb		14:40:07
3	Sb 206.836†	436.2	450.2	528.01 µg/L	528.01 ppb		14:40:07
3	Se 196.026†	1542.0	1649.8	2480.1 µg/L	2480.1 ppb		14:40:07
3	SiO2†	44033.8	46171.1	10820 µg/L	10820 ppb		14:39:46
3	Si 251.611†	54049.5	58001.7	5084.6 µg/L	5084.6 ppb		14:39:46
3	Sn 189.927†	861.1	921.3	523.38 µg/L	523.38 ppb		14:40:07
3	Sr 421.552†	93839.4	97181.6	493.28 µg/L	493.28 ppb		14:38:40
3	Ti 334.940†	171905.3	185593.3	497.78 µg/L	497.78 ppb		14:39:46
3	Tl 190.801†	347.8	401.8	442.20 µg/L	442.20 ppb		14:40:07
3	U 409.014†	4453.1	4693.3	405.51 µg/L	405.51 ppb		14:39:46
3	V 292.402†	33983.2	36858.4	515.11 µg/L	515.11 ppb		14:40:07
3	Zn 213.857†	16780.0	17589.3	469.10 µg/L	469.10 ppb		14:40:07

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1467408.4	92.150	%	0.4299				0.47%
Sc RADIAL	95090.0	96.2	%	0.33				0.34%
Y 371.029	1025507.6	92.168	%	0.4567				0.50%
Ag 328.068†	26493.4	260.19	µg/L	1.511	260.19	ppb	1.511	0.58%
QC value within limits for Ag 328.068 Recovery = 104.07%								
Al 396.153Radial†	958532.0	527290	µg/L	1345.0	527290	ppb	1345.0	0.26%
QC value within limits for Al 396.153Radial Recovery = 105.46%								
As 188.979†	298.7	508.77	µg/L	1.605	508.77	ppb	1.605	0.32%
QC value within limits for As 188.979 Recovery = 101.75%								
B 249.677†	10334.2	488.67	µg/L	3.245	488.67	ppb	3.245	0.66%
QC value within limits for B 249.677 Recovery = 97.73%								
Ba 233.527†	17912.1	496.55	µg/L	3.005	496.55	ppb	3.005	0.61%
QC value within limits for Ba 233.527 Recovery = 99.31%								
Be 313.107†	315922.8	243.07	µg/L	1.206	243.07	ppb	1.206	0.50%
QC value within limits for Be 313.107 Recovery = 97.23%								
Ca 317.933Radial†	1286611.3	492530	µg/L	2208.1	492530	ppb	2208.1	0.45%
QC value within limits for Ca 317.933Radial Recovery = 98.51%								
Cd 226.502†	15525.3	472.44	µg/L	3.403	472.44	ppb	3.403	0.72%
QC value within limits for Cd 226.502 Recovery = 94.49%								

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Co 228.616†            8015.3      446.16 µg/L        2.821      446.16 ppb        2.821   0.63%
   QC value within limits for Co 228.616  Recovery = 89.23%
Cr 267.716†           17217.9      484.02 µg/L        3.083      484.02 ppb        3.083   0.64%
   QC value within limits for Cr 267.716  Recovery = 96.80%
Cu 324.752†           66491.3      546.14 µg/L        1.924      546.14 ppb        1.924   0.35%
   QC value within limits for Cu 324.752  Recovery = 109.23%
Fe 238.204 Radial†    20481.4      190720 µg/L        685.9      190720 ppb        685.9   0.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.36%
K 766.490 Radial†      8698.4      5187.4 µg/L         9.98      5187.4 ppb         9.98   0.19%
   QC value within limits for K 766.490 Radial  Recovery = 103.75%
Mg 279.077 IEC†       42022.3      505590 µg/L       1846.4      505590 ppb       1846.4   0.37%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.12%
Mn 257.610†          127382.5      480.10 µg/L        2.497      480.10 ppb        2.497   0.52%
   QC value within limits for Mn 257.610  Recovery = 96.02%
Mo 202.031†            4076.0      516.88 µg/L        2.438      516.88 ppb        2.438   0.47%
   QC value within limits for Mo 202.031  Recovery = 103.38%
Na 589.592 Radial†    12264.4      5269.3 µg/L        11.06      5269.3 ppb        11.06   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 105.39%
Ni 231.604†            6151.4      469.20 µg/L        2.424      469.20 ppb        2.424   0.52%
   QC value within limits for Ni 231.604  Recovery = 93.84%
P 214.914†             1077.9      2681.1 µg/L        25.51      2681.1 ppb        25.51   0.95%
   QC value within limits for P 214.914  Recovery = 107.24%
Pb 220.353†            1319.0      493.52 µg/L        2.613      493.52 ppb        2.613   0.53%
   QC value within limits for Pb 220.353  Recovery = 98.70%
S 181.975 Axial†        607.0      2527.6 µg/L        58.20      2527.6 ppb        58.20   2.30%
   QC value within limits for S 181.975 Axial  Recovery = 101.10%
Sb 206.836†             452.0      530.22 µg/L        5.318      530.22 ppb        5.318   1.00%
   QC value within limits for Sb 206.836  Recovery = 106.04%
Se 196.026†            1660.9      2496.4 µg/L        14.60      2496.4 ppb        14.60   0.59%
   QC value within limits for Se 196.026  Recovery = 99.85%
SiO2†                 46243.8       10837 µg/L         61.4       10837 ppb         61.4   0.57%
   QC value within limits for SiO2  Recovery = 101.33%
Si 251.611†           58129.3      5095.8 µg/L        24.56      5095.8 ppb        24.56   0.48%
   QC value within limits for Si 251.611  Recovery = 101.92%
Sn 189.927†             931.8      528.85 µg/L        6.067      528.85 ppb        6.067   1.15%
   QC value within limits for Sn 189.927  Recovery = 105.77%
Sr 421.552†           97499.7      494.89 µg/L        1.398      494.89 ppb        1.398   0.28%
   QC value within limits for Sr 421.552  Recovery = 98.98%
Ti 334.940†          186040.5      498.87 µg/L        2.789      498.87 ppb        2.789   0.56%
   QC value within limits for Ti 334.940  Recovery = 99.77%
Tl 190.801†             407.8      450.23 µg/L        7.656      450.23 ppb        7.656   1.70%
   QC value within limits for Tl 190.801  Recovery = 90.05%
U 409.014†             4753.3      411.41 µg/L        7.692      411.41 ppb        7.692   1.87%
   QC value within limits for U 409.014  Recovery = 82.28%
V 292.402†            37086.2      518.28 µg/L        2.909      518.28 ppb        2.909   0.56%
   QC value within limits for V 292.402  Recovery = 103.66%
Zn 213.857†           17687.2      471.77 µg/L        2.756      471.77 ppb        2.756   0.58%
   QC value within limits for Zn 213.857  Recovery = 94.35%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/27/2010 14:40:16
Data Type: Reprocessed on 2/27/2010 15:20:59

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1445525.0	1445525.0	90.776	%			14:41:31
1	Sc RADIAL	95241.7	95241.7	96.3	%			14:40:56
1	Y 371.029	1001888.4	1001888.4	90.045	%			14:41:31
1	Ag 328.068†	-3555.2	-4138.2	-2.7943	µg/L	-2.7943	ppb	14:41:31
1	Al 396.153Radial†	925417.0	960919.3	528610	µg/L	528610	ppb	14:40:51
1	As 188.979†	31.0	32.5	-52.746	µg/L	-52.746	ppb	14:41:52
1	B 249.677†	3897.9	2955.7	-70.908	µg/L	-70.908	ppb	14:41:31
1	Ba 233.527†	530.0	611.6	16.874	µg/L	16.874	ppb	14:41:52
1	Be 313.107†	-8847.7	-7522.6	-5.8041	µg/L	-5.8041	ppb	14:41:31
1	Ca 317.933Radial†	1256417.4	1304020.5	499190	µg/L	499190	ppb	14:40:51
1	Cd 226.502†	1743.5	2062.6	13.822	µg/L	13.822	ppb	14:41:31
1	Co 228.616†	178.8	183.1	10.125	µg/L	10.125	ppb	14:41:52
1	Cr 267.716†	316.4	269.5	7.5534	µg/L	7.5534	ppb	14:41:52
1	Cu 324.752†	-7174.3	-10565.0	4.9997	µg/L	4.9997	ppb	14:41:31
1	Fe 238.204 Radial†	47391.3	49175.1	457880	µg/L	457880	ppb	14:40:56
1	K 766.490 Radial†	34.0	-191.3	-114.10	µg/L	-114.10	ppb	14:40:56
1	Mg 279.077 IEC†	40348.2	41880.2	503580	µg/L	503580	ppb	14:40:56
1	Mn 257.610†	5254.9	6352.0	18.209	µg/L	18.209	ppb	14:41:31
1	Mo 202.031†	-153.8	-174.0	-4.3513	µg/L	-4.3513	ppb	14:41:52
1	Na 589.592 Radial†	1146049.6	1189555.5	511080	µg/L	511080	ppb	14:40:51
1	Ni 231.604†	215.1	-52.8	1.9323	µg/L	1.9323	ppb	14:41:52
1	P 214.914†	176.3	170.9	221.40	µg/L	221.40	ppb	14:41:52
1	Pb 220.353†	-18.2	-61.0	11.108	µg/L	11.108	ppb	14:41:52
1	S 181.975 Axial†	-36.2	-53.7	-223.43	µg/L	-223.43	ppb	14:41:52
1	Sb 206.836†	18.3	-0.6	-8.6687	µg/L	-8.6687	ppb	14:41:52
1	Se 196.026†	-294.2	-339.2	672.69	µg/L	672.69	ppb	14:41:52
1	SiO2†	1176.5	-76.4	-17.906	µg/L	-17.906	ppb	14:41:52
1	Si 251.611†	-168.8	-541.7	-47.483	µg/L	-47.483	ppb	14:41:52
1	Sn 189.927†	-81.4	-98.1	-9.5916	µg/L	-9.5916	ppb	14:41:52
1	Sr 421.552†	2377.7	2322.4	11.788	µg/L	11.788	ppb	14:40:56
1	Ti 334.940†	9501.5	10453.2	-2.0022	µg/L	-2.0022	ppb	14:41:31
1	Tl 190.801†	-2.7	23.3	15.353	µg/L	15.353	ppb	14:41:52
1	U 409.014†	136761.9	150543.8	14727	µg/L	14727	ppb	14:41:31
1	V 292.402†	-1934.0	-1963.9	5.2717	µg/L	5.2717	ppb	14:41:31
1	Zn 213.857†	2822.7	2581.4	24.601	µg/L	24.601	ppb	14:41:52
2	Sc 361.383	1458817.5	1458817.5	91.611	%			14:41:59
2	Sc RADIAL	94718.8	94718.8	95.8	%			14:41:08
2	Y 371.029	1012269.5	1012269.5	90.978	%			14:41:59
2	Ag 328.068†	-3543.7	-4090.0	-2.1569	µg/L	-2.1569	ppb	14:41:59
2	Al 396.153Radial†	920524.4	961116.7	528720	µg/L	528720	ppb	14:41:03
2	As 188.979†	35.5	37.1	-43.849	µg/L	-43.849	ppb	14:42:19
2	B 249.677†	3928.0	2949.4	-72.496	µg/L	-72.496	ppb	14:41:59
2	Ba 233.527†	520.9	596.3	16.456	µg/L	16.456	ppb	14:42:19
2	Be 313.107†	-8869.2	-7457.3	-5.7537	µg/L	-5.7537	ppb	14:41:59
2	Ca 317.933Radial†	1249071.8	1303554.6	499010	µg/L	499010	ppb	14:41:03
2	Cd 226.502†	1749.9	2052.0	13.218	µg/L	13.218	ppb	14:41:59
2	Co 228.616†	191.2	194.8	10.781	µg/L	10.781	ppb	14:42:19
2	Cr 267.716†	339.9	292.0	8.1868	µg/L	8.1868	ppb	14:42:19
2	Cu 324.752†	-7276.3	-10604.4	5.1430	µg/L	5.1430	ppb	14:41:59
2	Fe 238.204 Radial†	47374.6	49429.4	460250	µg/L	460250	ppb	14:41:08
2	K 766.490 Radial†	61.2	-162.8	-97.096	µg/L	-97.096	ppb	14:41:08
2	Mg 279.077 IEC†	40154.2	41909.0	503930	µg/L	503930	ppb	14:41:08
2	Mn 257.610†	5322.9	6373.4	18.411	µg/L	18.411	ppb	14:41:59
2	Mo 202.031†	-144.1	-161.8	-2.7445	µg/L	-2.7445	ppb	14:42:19
2	Na 589.592 Radial†	1139300.4	1189079.5	510870	µg/L	510870	ppb	14:41:03
2	Ni 231.604†	198.4	-73.1	0.4143	µg/L	0.4143	ppb	14:42:19
2	P 214.914†	170.8	163.2	200.08	µg/L	200.08	ppb	14:42:19
2	Pb 220.353†	3.3	-37.4	19.300	µg/L	19.300	ppb	14:42:19

2	S 181.975 Axial†	-37.4	-54.6	-227.40 µg/L	-227.40 ppb	14:42:19
2	Sb 206.836†	21.3	2.5	-4.9717 µg/L	-4.9717 ppb	14:42:19
2	Se 196.026†	-298.1	-340.5	678.51 µg/L	678.51 ppb	14:42:19
2	SiO2†	1202.9	-59.3	-13.901 µg/L	-13.901 ppb	14:42:19
2	Si 251.611†	-172.2	-543.7	-47.667 µg/L	-47.667 ppb	14:42:19
2	Sn 189.927†	-77.3	-92.8	-7.0156 µg/L	-7.0156 ppb	14:42:19
2	Sr 421.552†	2354.4	2311.7	11.734 µg/L	11.734 ppb	14:41:08
2	Ti 334.940†	9463.5	10316.3	-2.4231 µg/L	-2.4231 ppb	14:41:59
2	Tl 190.801†	3.4	30.0	24.158 µg/L	24.158 ppb	14:42:19
2	U 409.014†	137399.5	149867.0	14660 µg/L	14660 ppb	14:41:59
2	V 292.402†	-1803.9	-1802.4	7.5039 µg/L	7.5039 ppb	14:41:59
2	Zn 213.857†	2818.1	2548.0	23.509 µg/L	23.509 ppb	14:42:19
3	Sc 361.383	1458986.0	1458986.0	91.621 %		14:42:26
3	Sc RADIAL	95093.1	95093.1	96.2 %		14:41:20
3	Y 371.029	1011924.4	1011924.4	90.947 %		14:42:26
3	Ag 328.068†	-3511.2	-4054.0	-1.8113 µg/L	-1.8113 ppb	14:42:26
3	Al 396.153Radial†	915034.0	951624.5	523500 µg/L	523500 ppb	14:41:15
3	As 188.979†	28.1	29.0	-59.380 µg/L	-59.380 ppb	14:42:47
3	B 249.677†	3918.0	2938.0	-73.289 µg/L	-73.289 ppb	14:42:26
3	Ba 233.527†	509.7	584.0	16.113 µg/L	16.113 ppb	14:42:47
3	Be 313.107†	-8786.6	-7366.1	-5.6835 µg/L	-5.6835 ppb	14:42:26
3	Ca 317.933Radial†	1240097.2	1289089.3	493470 µg/L	493470 ppb	14:41:15
3	Cd 226.502†	1754.2	2056.5	13.330 µg/L	13.330 ppb	14:42:26
3	Co 228.616†	193.6	197.4	10.925 µg/L	10.925 ppb	14:42:47
3	Cr 267.716†	356.7	310.3	8.7024 µg/L	8.7024 ppb	14:42:47
3	Cu 324.752†	-7211.4	-10532.5	5.7458 µg/L	5.7458 ppb	14:42:26
3	Fe 238.204 Radial†	47590.2	49458.8	460520 µg/L	460520 ppb	14:41:20
3	K 766.490 Radial†	157.4	-63.1	-37.606 µg/L	-37.606 ppb	14:41:20
3	Mg 279.077 IEC†	40468.6	42070.9	505880 µg/L	505880 ppb	14:41:20
3	Mn 257.610†	5312.1	6361.0	18.246 µg/L	18.246 ppb	14:42:26
3	Mo 202.031†	-138.1	-155.2	-1.9074 µg/L	-1.9074 ppb	14:42:47
3	Na 589.592 Radial†	1135729.7	1180684.4	507270 µg/L	507270 ppb	14:41:15
3	Ni 231.604†	210.4	-60.1	1.4114 µg/L	1.4114 ppb	14:42:47
3	P 214.914†	181.4	174.8	227.50 µg/L	227.50 ppb	14:42:47
3	Pb 220.353†	-12.6	-54.7	12.986 µg/L	12.986 ppb	14:42:47
3	S 181.975 Axial†	-34.0	-50.9	-212.10 µg/L	-212.10 ppb	14:42:47
3	Sb 206.836†	30.2	12.2	6.5979 µg/L	6.5979 ppb	14:42:47
3	Se 196.026†	-299.2	-341.6	676.87 µg/L	676.87 ppb	14:42:47
3	SiO2†	1215.1	-46.2	-10.832 µg/L	-10.832 ppb	14:42:47
3	Si 251.611†	-150.4	-519.9	-45.573 µg/L	-45.573 ppb	14:42:47
3	Sn 189.927†	-75.5	-90.8	-5.8159 µg/L	-5.8159 ppb	14:42:47
3	Sr 421.552†	2374.7	2323.2	11.792 µg/L	11.792 ppb	14:41:20
3	Ti 334.940†	9532.5	10390.5	-2.4540 µg/L	-2.4540 ppb	14:42:26
3	Tl 190.801†	15.6	43.3	42.044 µg/L	42.044 ppb	14:42:47
3	U 409.014†	137434.7	149888.1	14662 µg/L	14662 ppb	14:42:26
3	V 292.402†	-1845.4	-1847.5	6.9084 µg/L	6.9084 ppb	14:42:26
3	Zn 213.857†	2844.1	2576.0	24.190 µg/L	24.190 ppb	14:42:47

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1454442.8	91.336	%	0.4850				0.53%
Sc RADIAL	95017.9	96.1	%	0.27				0.28%
Y 371.029	1008694.1	90.657	%	0.5299				0.58%
Ag 328.068†	-4094.1	-2.2542	µg/L	0.49870	-2.2542	ppb	0.49870	22.12%
Al 396.153Radial†	957886.8	526940	µg/L	2983.9	526940	ppb	2983.9	0.57%
QC value within limits for Al 396.153Radial Recovery = 105.39%								
As 188.979†	32.9	-51.992	µg/L	7.7933	-51.992	ppb	7.7933	14.99%
B 249.677†	2947.7	-72.231	µg/L	1.2126	-72.231	ppb	1.2126	1.68%
Ba 233.527†	597.3	16.481	µg/L	0.3807	16.481	ppb	0.3807	2.31%
Be 313.107†	-7448.7	-5.7471	µg/L	0.06059	-5.7471	ppb	0.06059	1.05%
Ca 317.933Radial†	1298888.1	497230	µg/L	3249.8	497230	ppb	3249.8	0.65%
QC value within limits for Ca 317.933Radial Recovery = 99.45%								
Cd 226.502†	2057.1	13.457	µg/L	0.3213	13.457	ppb	0.3213	2.39%
Co 228.616†	191.8	10.610	µg/L	0.4262	10.610	ppb	0.4262	4.02%
Cr 267.716†	290.6	8.1475	µg/L	0.57550	8.1475	ppb	0.57550	7.06%
Cu 324.752†	-10567.3	5.2962	µg/L	0.39594	5.2962	ppb	0.39594	7.48%
Fe 238.204 Radial†	49354.4	459550	µg/L	1452.6	459550	ppb	1452.6	0.32%
QC value within limits for Fe 238.204 Radial Recovery = 91.91%								
K 766.490 Radial†	-139.1	-82.935	µg/L	40.1663	-82.935	ppb	40.1663	48.43%

Mg 279.077 IEC†	41953.4	504460	µg/L	1236.0	504460	ppb	1236.0	0.25%
QC value within limits for Mg 279.077 IEC Recovery = 100.89%								
Mn 257.610†	6362.1	18.289	µg/L	0.1072	18.289	ppb	0.1072	0.59%
Mo 202.031†	-163.7	-3.0011	µg/L	1.24198	-3.0011	ppb	1.24198	41.38%
Na 589.592 Radial†	1186439.8	509740	µg/L	2143.9	509740	ppb	2143.9	0.42%
QC value within limits for Na 589.592 Radial Recovery = 101.95%								
Ni 231.604†	-62.0	1.2527	µg/L	0.77137	1.2527	ppb	0.77137	61.58%
P 214.914†	169.7	216.33	µg/L	14.399	216.33	ppb	14.399	6.66%
Pb 220.353†	-51.0	14.465	µg/L	4.2918	14.465	ppb	4.2918	29.67%
S 181.975 Axial†	-53.1	-220.98	µg/L	7.938	-220.98	ppb	7.938	3.59%
Sb 206.836†	4.7	-2.3475	µg/L	7.96443	-2.3475	ppb	7.96443	339.27%
Se 196.026†	-340.4	676.02	µg/L	2.998	676.02	ppb	2.998	0.44%
SiO2†	-60.6	-14.213	µg/L	3.5474	-14.213	ppb	3.5474	24.96%
Si 251.611†	-535.1	-46.908	µg/L	1.1596	-46.908	ppb	1.1596	2.47%
Sn 189.927†	-93.9	-7.4744	µg/L	1.92919	-7.4744	ppb	1.92919	25.81%
Sr 421.552†	2319.1	11.771	µg/L	0.0325	11.771	ppb	0.0325	0.28%
Ti 334.940†	10386.7	-2.2931	µg/L	0.25244	-2.2931	ppb	0.25244	11.01%
Tl 190.801†	32.2	27.185	µg/L	13.6005	27.185	ppb	13.6005	50.03%
U 409.014†	150099.6	14683	µg/L	38.0	14683	ppb	38.0	0.26%
QC value within limits for U 409.014 Recovery = 97.89%								
V 292.402†	-1871.3	6.5613	µg/L	1.15588	6.5613	ppb	1.15588	17.62%
Zn 213.857†	2568.5	24.100	µg/L	0.5513	24.100	ppb	0.5513	2.29%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/27/2010 14:42:57
Data Type: Reprocessed on 2/27/2010 15:21:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1567977.4	1567977.4	98.466	%			14:45:29
1	Sc RADIAL	97217.6	97217.6	98.3	%			14:43:40
1	Y 371.029	1083580.1	1083580.1	97.388	%			14:45:29
1	Ag 328.068†	-6665.8	-6991.4	3.2600	µg/L	3.2600	ppb	14:45:35
1	Al 396.153Radial†	686.1	870.8	267.64	µg/L	267.64	ppb	14:43:40
1	As 188.979†	4981.1	5057.1	10025	µg/L	10025	ppb	14:45:35
1	B 249.677†	87217.7	87238.4	4998.3	µg/L	4998.3	ppb	14:45:29
1	Ba 233.527†	524832.1	533036.9	14768	µg/L	14768	ppb	14:45:29
1	Be 313.107†	3680589.3	3740158.2	2876.3	µg/L	2876.3	ppb	14:45:29
1	Ca 317.933Radial†	661.1	309.6	118.53	µg/L	118.53	ppb	14:44:00
1	Cd 226.502†	301605.6	306446.7	9751.7	µg/L	9751.7	ppb	14:45:29
1	Co 228.616†	168429.1	171039.4	9523.4	µg/L	9523.4	ppb	14:45:29
1	Cr 267.716†	869528.0	882996.6	24813	µg/L	24813	ppb	14:45:29
1	Cu 324.752†	2634824.6	2673214.4	20516	µg/L	20516	ppb	14:45:29
1	Fe 238.204 Radial†	34.4	9.6	291.59	µg/L	291.59	ppb	14:44:00
1	K 766.490 Radial†	502048.6	510395.4	304380	µg/L	304380	ppb	14:43:34
1	Mg 279.077 IEC†	10.7	2.5	203.42	µg/L	203.42	ppb	14:44:00
1	Mn 257.610†	2396573.4	2434476.0	9611.3	µg/L	9611.3	ppb	14:45:29
1	Mo 202.031†	81044.4	82302.6	10290	µg/L	10290	ppb	14:45:29
1	Na 589.592 Radial†	680.7	445.8	191.54	µg/L	191.54	ppb	14:43:40
1	Ni 231.604†	133753.1	135547.4	10285	µg/L	10285	ppb	14:45:29
1	P 214.914†	6022.6	6093.2	13427	µg/L	13427	ppb	14:45:35
1	Pb 220.353†	71155.8	72223.5	24673	µg/L	24673	ppb	14:45:35
1	S 181.975 Axial†	12497.5	12678.5	52794	µg/L	52794	ppb	14:45:35
1	Sb 206.836†	8523.4	8635.4	10103	µg/L	10103	ppb	14:45:35
1	Se 196.026†	7281.8	7380.2	9978.0	µg/L	9978.0	ppb	14:45:35
1	SiO2†	423886.2	429118.1	100560	µg/L	100560	ppb	14:45:29
1	Si 251.611†	526656.1	534505.9	46857	µg/L	46857	ppb	14:45:29
1	Sn 189.927†	20425.7	20735.5	10466	µg/L	10466	ppb	14:45:35
1	Sr 421.552†	1932424.9	1965278.8	9975.4	µg/L	9975.4	ppb	14:43:34
1	Ti 334.940†	3373528.8	3426075.8	9777.8	µg/L	9777.8	ppb	14:45:29
1	Tl 190.801†	7467.0	7609.6	9666.6	µg/L	9666.6	ppb	14:45:35
1	U 409.014†	-1176.4	-1309.4	-128.93	µg/L	-128.93	ppb	14:45:29
1	V 292.402†	734836.0	746451.6	10316	µg/L	10316	ppb	14:45:29
1	Zn 213.857†	499947.4	507208.6	14615	µg/L	14615	ppb	14:45:29
2	Sc 361.383	1551575.4	1551575.4	97.436	%			14:45:51
2	Sc RADIAL	97063.6	97063.6	98.2	%			14:44:12
2	Y 371.029	1073315.9	1073315.9	96.465	%			14:45:51
2	Ag 328.068†	-6141.8	-6525.2	6.8946	µg/L	6.8946	ppb	14:45:56
2	Al 396.153Radial†	964.6	1155.6	426.56	µg/L	426.56	ppb	14:44:12
2	As 188.979†	4702.0	4824.1	9562.8	µg/L	9562.8	ppb	14:45:56
2	B 249.677†	85885.0	86806.9	4973.2	µg/L	4973.2	ppb	14:45:51
2	Ba 233.527†	514025.5	527580.4	14617	µg/L	14617	ppb	14:45:51
2	Be 313.107†	3609606.3	3706821.8	2850.7	µg/L	2850.7	ppb	14:45:51
2	Ca 317.933Radial†	990.7	646.5	247.47	µg/L	247.47	ppb	14:44:33
2	Cd 226.502†	294737.9	302636.2	9630.5	µg/L	9630.5	ppb	14:45:51
2	Co 228.616†	164647.6	168966.6	9408.0	µg/L	9408.0	ppb	14:45:51
2	Cr 267.716†	849808.5	872093.3	24506	µg/L	24506	ppb	14:45:51
2	Cu 324.752†	2584873.0	2650235.5	20339	µg/L	20339	ppb	14:45:51
2	Fe 238.204 Radial†	51.3	26.8	449.70	µg/L	449.70	ppb	14:44:33
2	K 766.490 Radial†	501403.0	510547.6	304470	µg/L	304470	ppb	14:44:07
2	Mg 279.077 IEC†	21.2	13.3	330.86	µg/L	330.86	ppb	14:44:33
2	Mn 257.610†	2343529.2	2405765.3	9497.9	µg/L	9497.9	ppb	14:45:51
2	Mo 202.031†	79343.0	81426.5	10181	µg/L	10181	ppb	14:45:51
2	Na 589.592 Radial†	723.0	490.0	210.52	µg/L	210.52	ppb	14:44:12
2	Ni 231.604†	130592.1	133739.1	10147	µg/L	10147	ppb	14:45:51
2	P 214.914†	5621.0	5745.6	12555	µg/L	12555	ppb	14:45:56
2	Pb 220.353†	66998.2	68720.4	23476	µg/L	23476	ppb	14:45:56

2	S 181.975 Axial†	11764.7	12060.5	50221	µg/L	50221	ppb	14:45:56
2	Sb 206.836†	8032.9	8223.5	9617.2	µg/L	9617.2	ppb	14:45:56
2	Se 196.026†	6939.1	7106.7	9608.6	µg/L	9608.6	ppb	14:45:56
2	SiO2†	418822.2	428471.6	100410	µg/L	100410	ppb	14:45:51
2	Si 251.611†	520509.6	533851.7	46799	µg/L	46799	ppb	14:45:51
2	Sn 189.927†	18906.0	19395.1	9789.5	µg/L	9789.5	ppb	14:45:56
2	Sr 421.552†	1936527.9	1972575.8	10012	µg/L	10012	ppb	14:44:07
2	Ti 334.940†	3309811.0	3396899.1	9694.5	µg/L	9694.5	ppb	14:45:51
2	Tl 190.801†	7162.6	7377.4	9373.7	µg/L	9373.7	ppb	14:45:56
2	U 409.014†	-280.5	-402.6	-39.689	µg/L	-39.689	ppb	14:45:51
2	V 292.402†	720219.1	739339.2	10217	µg/L	10217	ppb	14:45:51
2	Zn 213.857†	488990.6	501330.9	14446	µg/L	14446	ppb	14:45:51
3	Sc 361.383	1557050.9	1557050.9	97.780	%			14:46:12
3	Sc RADIAL	97781.4	97781.4	98.9	%			14:44:45
3	Y 371.029	1075454.7	1075454.7	96.657	%			14:46:12
3	Ag 328.068†	-5410.2	-5754.8	7.5534	µg/L	7.5534	ppb	14:46:18
3	Al 396.153Radial†	1575.8	1766.4	782.31	µg/L	782.31	ppb	14:44:45
3	As 188.979†	4332.0	4428.7	8779.1	µg/L	8779.1	ppb	14:46:18
3	B 249.677†	80791.2	81287.5	4654.7	µg/L	4654.7	ppb	14:46:12
3	Ba 233.527†	472873.8	483639.2	13399	µg/L	13399	ppb	14:46:12
3	Be 313.107†	3285708.4	3362541.5	2585.9	µg/L	2585.9	ppb	14:46:12
3	Ca 317.933Radial†	2148.8	1810.2	692.95	µg/L	692.95	ppb	14:45:05
3	Cd 226.502†	269404.6	275663.9	8772.0	µg/L	8772.0	ppb	14:46:12
3	Co 228.616†	149399.0	152777.6	8506.5	µg/L	8506.5	ppb	14:46:12
3	Cr 267.716†	754136.1	771181.4	21671	µg/L	21671	ppb	14:46:12
3	Cu 324.752†	2349594.2	2400285.1	18421	µg/L	18421	ppb	14:46:12
3	Fe 238.204 Radial†	110.7	86.5	986.27	µg/L	986.27	ppb	14:45:05
3	K 766.490 Radial†	496264.6	501602.3	299140	µg/L	299140	ppb	14:44:40
3	Mg 279.077 IEC†	64.1	56.5	833.86	µg/L	833.86	ppb	14:45:05
3	Mn 257.610†	2131411.7	2180373.1	8608.1	µg/L	8608.1	ppb	14:46:12
3	Mo 202.031†	72112.7	73745.7	9220.6	µg/L	9220.6	ppb	14:46:12
3	Na 589.592 Radial†	995.5	760.1	326.59	µg/L	326.59	ppb	14:44:45
3	Ni 231.604†	118692.4	121097.9	9188.3	µg/L	9188.3	ppb	14:46:12
3	P 214.914†	5142.5	5236.0	11449	µg/L	11449	ppb	14:46:18
3	Pb 220.353†	61420.5	62774.3	21445	µg/L	21445	ppb	14:46:18
3	S 181.975 Axial†	10946.1	11180.9	46558	µg/L	46558	ppb	14:46:18
3	Sb 206.836†	7362.4	7508.8	8788.2	µg/L	8788.2	ppb	14:46:18
3	Se 196.026†	6430.9	6561.9	8873.5	µg/L	8873.5	ppb	14:46:18
3	SiO2†	392538.5	400079.5	93756	µg/L	93756	ppb	14:46:12
3	Si 251.611†	487943.1	498667.1	43715	µg/L	43715	ppb	14:46:12
3	Sn 189.927†	16784.7	17157.4	8660.0	µg/L	8660.0	ppb	14:46:18
3	Sr 421.552†	1911382.9	1932668.2	9809.8	µg/L	9809.8	ppb	14:44:40
3	Ti 334.940†	3015863.7	3084331.6	8802.5	µg/L	8802.5	ppb	14:46:12
3	Tl 190.801†	6814.0	6995.0	8884.4	µg/L	8884.4	ppb	14:46:18
3	U 409.014†	524.1	421.2	41.317	µg/L	41.317	ppb	14:46:12
3	V 292.402†	652925.6	667918.3	9229.6	µg/L	9229.6	ppb	14:46:12
3	Zn 213.857†	446494.6	456105.1	13143	µg/L	13143	ppb	14:46:12

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1558867.9	97.894	%	0.5244				0.54%
Sc RADIAL	97354.2	98.5	%	0.38				0.39%
Y 371.029	1077450.2	96.837	%	0.4867				0.50%
Ag 328.068†	-6423.8	5.9027	µg/L	2.31218	5.9027	ppb	2.31218	39.17%
Al 396.153Radial†	1264.3	492.17	µg/L	263.532	492.17	ppb	263.532	53.54%
As 188.979†	4770.0	9455.7	µg/L	630.00	9455.7	ppb	630.00	6.66%
QC value within limits for As 188.979 Recovery = 94.56%								
B 249.677†	85110.9	4875.4	µg/L	191.57	4875.4	ppb	191.57	3.93%
QC value within limits for B 249.677 Recovery = 97.51%								
Ba 233.527†	514752.2	14261	µg/L	750.5	14261	ppb	750.5	5.26%
QC value within limits for Ba 233.527 Recovery = 95.07%								
Be 313.107†	3603173.8	2771.0	µg/L	160.78	2771.0	ppb	160.78	5.80%
QC value within limits for Be 313.107 Recovery = 92.37%								
Ca 317.933Radial†	922.1	352.98	µg/L	301.394	352.98	ppb	301.394	85.38%
Cd 226.502†	294915.6	9384.7	µg/L	534.08	9384.7	ppb	534.08	5.69%
QC value within limits for Cd 226.502 Recovery = 93.85%								
Co 228.616†	164261.2	9146.0	µg/L	556.79	9146.0	ppb	556.79	6.09%
QC value within limits for Co 228.616 Recovery = 91.46%								
Cr 267.716†	842090.4	23663	µg/L	1732.3	23663	ppb	1732.3	7.32%

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   QC value within limits for Cr 267.716  Recovery = 94.65%
Cu 324.752†          2574578.3       19759 µg/L        1161.7       19759 ppb         1161.7   5.88%
   QC value within limits for Cu 324.752  Recovery = 98.79%
Fe 238.204 Radial†        41.0      575.85 µg/L       364.117      575.85 ppb        364.117  63.23%
K 766.490 Radial†     507515.1      302660 µg/L        3054.1      302660 ppb         3054.1   1.01%
   QC value within limits for K 766.490 Radial  Recovery = 100.89%
Mg 279.077 IEC†           24.1      456.05 µg/L       333.343      456.05 ppb        333.343  73.09%
Mn 257.610†          2340204.8      9239.1 µg/L        549.40      9239.1 ppb         549.40   5.95%
   QC value within limits for Mn 257.610  Recovery = 92.39%
Mo 202.031†           79158.3      9897.3 µg/L        588.62      9897.3 ppb         588.62   5.95%
   QC value within limits for Mo 202.031  Recovery = 98.97%
Na 589.592 Radial†       565.3      242.88 µg/L        73.110      242.88 ppb         73.110  30.10%
Ni 231.604†           130128.1      9873.4 µg/L        597.31      9873.4 ppb         597.31   6.05%
   QC value within limits for Ni 231.604  Recovery = 98.73%
P 214.914†              5691.6       12477 µg/L         991.3       12477 ppb          991.3   7.94%
   QC value less than the lower limit for P 214.914  Recovery = 83.18%
Pb 220.353†            67906.1       23198 µg/L        1632.0       23198 ppb         1632.0   7.04%
   QC value within limits for Pb 220.353  Recovery = 92.79%
S 181.975 Axial†       11973.3       49857 µg/L        3133.8       49857 ppb         3133.8   6.29%
   QC value within limits for S 181.975 Axial  Recovery = 99.71%
Sb 206.836†             8122.6      9502.8 µg/L        664.79      9502.8 ppb         664.79   7.00%
   QC value within limits for Sb 206.836  Recovery = 95.03%
Se 196.026†             7016.2      9486.7 µg/L        562.23      9486.7 ppb         562.23   5.93%
   QC value within limits for Se 196.026  Recovery = 94.87%
SiO2†                 419223.1       98242 µg/L        3885.9       98242 ppb         3885.9   3.96%
   QC value within limits for SiO2  Recovery = 91.81%
Si 251.611†           522341.6       45790 µg/L        1797.6       45790 ppb         1797.6   3.93%
   QC value within limits for Si 251.611  Recovery = 91.58%
Sn 189.927†            19096.0      9638.5 µg/L        912.39      9638.5 ppb         912.39   9.47%
   QC value within limits for Sn 189.927  Recovery = 96.38%
Sr 421.552†          1956841.0      9932.5 µg/L        107.86      9932.5 ppb         107.86   1.09%
   QC value within limits for Sr 421.552  Recovery = 99.33%
Ti 334.940†          3302435.5      9424.9 µg/L        540.69      9424.9 ppb         540.69   5.74%
   QC value within limits for Ti 334.940  Recovery = 94.25%
Tl 190.801†             7327.3      9308.2 µg/L        395.19      9308.2 ppb         395.19   4.25%
   QC value within limits for Tl 190.801  Recovery = 93.08%
U 409.014†              -430.3     -42.435 µg/L       85.1582     -42.435 ppb        85.1582 200.68%
V 292.402†            717903.0      9920.9 µg/L        600.75      9920.9 ppb         600.75   6.06%
   QC value within limits for V 292.402  Recovery = 99.21%
Zn 213.857†           488214.9       14068 µg/L         805.6       14068 ppb          805.6   5.73%
   QC value within limits for Zn 213.857  Recovery = 93.79%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/27/2010 14:46:28
Data Type: Reprocessed on 2/27/2010 15:22:51

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1580518.4	1580518.4	99.253	%			14:48:28
1	Sc RADIAL	99890.4	99890.4	101	%			14:47:05
1	Y 371.029	1099284.4	1099284.4	98.799	%			14:48:28
1	Ag 328.068†	56739.9	56944.9	524.50	µg/L	524.50	ppb	14:48:34
1	Al 396.153Radial†	9802.1	9875.7	5421.1	µg/L	5421.1	ppb	14:47:05
1	As 188.979†	281.1	281.6	557.00	µg/L	557.00	ppb	14:48:54
1	B 249.677†	10490.4	9231.0	522.77	µg/L	522.77	ppb	14:48:34
1	Ba 233.527†	19141.4	19313.1	535.37	µg/L	535.37	ppb	14:48:34
1	Be 313.107†	676244.5	683555.2	526.16	µg/L	526.16	ppb	14:48:28
1	Ca 317.933Radial†	14445.3	13936.1	5334.9	µg/L	5334.9	ppb	14:47:26
1	Cd 226.502†	16567.0	16833.5	535.07	µg/L	535.07	ppb	14:48:34
1	Co 228.616†	9600.7	9659.0	537.84	µg/L	537.84	ppb	14:48:34
1	Cr 267.716†	19387.8	19454.6	546.88	µg/L	546.88	ppb	14:48:34
1	Cu 324.752†	72245.2	70126.9	539.20	µg/L	539.20	ppb	14:48:34
1	Fe 238.204 Radial†	607.8	576.2	5376.4	µg/L	5376.4	ppb	14:47:26
1	K 766.490 Radial†	9367.8	9046.2	5394.8	µg/L	5394.8	ppb	14:47:05
1	Mg 279.077 IEC†	468.4	455.3	5484.2	µg/L	5484.2	ppb	14:47:26
1	Mn 257.610†	135757.3	137341.6	542.17	µg/L	542.17	ppb	14:48:28
1	Mo 202.031†	4484.6	4513.9	564.58	µg/L	564.58	ppb	14:48:54
1	Na 589.592 Radial†	25271.3	24768.6	10642	µg/L	10642	ppb	14:47:05
1	Ni 231.604†	7623.1	7390.8	560.82	µg/L	560.82	ppb	14:48:34
1	P 214.914†	1091.5	1076.5	2676.3	µg/L	2676.3	ppb	14:48:54
1	Pb 220.353†	1656.2	1627.7	556.82	µg/L	556.82	ppb	14:48:54
1	S 181.975 Axial†	282.6	270.9	1128.2	µg/L	1128.2	ppb	14:48:54
1	Sb 206.836†	493.7	476.7	566.90	µg/L	566.90	ppb	14:48:54
1	Se 196.026†	422.9	411.0	569.26	µg/L	569.26	ppb	14:48:54
1	SiO2†	25762.1	24583.5	5761.0	µg/L	5761.0	ppb	14:48:34
1	Si 251.611†	30824.3	30700.4	2691.3	µg/L	2691.3	ppb	14:48:34
1	Sn 189.927†	1112.1	1112.1	561.71	µg/L	561.71	ppb	14:48:54
1	Sr 421.552†	102609.1	101422.8	514.80	µg/L	514.80	ppb	14:47:05
1	Ti 334.940†	184805.4	186181.8	531.00	µg/L	531.00	ppb	14:48:28
1	Tl 190.801†	396.4	425.7	540.95	µg/L	540.95	ppb	14:48:54
1	U 409.014†	5424.8	5350.8	525.72	µg/L	525.72	ppb	14:48:34
1	V 292.402†	38852.8	39311.6	542.45	µg/L	542.45	ppb	14:48:34
1	Zn 213.857†	19124.3	18740.0	538.98	µg/L	538.98	ppb	14:48:34
2	Sc 361.383	1577605.4	1577605.4	99.070	%			14:49:00
2	Sc RADIAL	100078.5	100078.5	101	%			14:47:31
2	Y 371.029	1097862.5	1097862.5	98.671	%			14:49:00
2	Ag 328.068†	56652.5	56962.2	524.71	µg/L	524.71	ppb	14:49:06
2	Al 396.153Radial†	9689.9	9746.6	5350.1	µg/L	5350.1	ppb	14:47:31
2	As 188.979†	276.4	277.4	548.52	µg/L	548.52	ppb	14:49:26
2	B 249.677†	10546.7	9307.3	527.12	µg/L	527.12	ppb	14:49:06
2	Ba 233.527†	19425.0	19634.9	544.29	µg/L	544.29	ppb	14:49:06
2	Be 313.107†	677599.4	686180.9	528.18	µg/L	528.18	ppb	14:49:00
2	Ca 317.933Radial†	14401.2	13865.7	5307.9	µg/L	5307.9	ppb	14:47:51
2	Cd 226.502†	16811.0	17110.7	543.88	µg/L	543.88	ppb	14:49:06
2	Co 228.616†	9697.7	9774.8	544.28	µg/L	544.28	ppb	14:49:06
2	Cr 267.716†	20178.5	20288.7	570.32	µg/L	570.32	ppb	14:49:06
2	Cu 324.752†	73553.6	71582.0	550.38	µg/L	550.38	ppb	14:49:06
2	Fe 238.204 Radial†	614.0	581.2	5423.2	µg/L	5423.2	ppb	14:47:51
2	K 766.490 Radial†	9196.2	8859.2	5283.3	µg/L	5283.3	ppb	14:47:31
2	Mg 279.077 IEC†	469.0	455.1	5480.8	µg/L	5480.8	ppb	14:47:51
2	Mn 257.610†	136817.7	138664.5	547.40	µg/L	547.40	ppb	14:49:00
2	Mo 202.031†	4495.2	4532.9	566.96	µg/L	566.96	ppb	14:49:26
2	Na 589.592 Radial†	25109.3	24561.6	10553	µg/L	10553	ppb	14:47:31
2	Ni 231.604†	7729.3	7512.1	570.03	µg/L	570.03	ppb	14:49:06
2	P 214.914†	1078.3	1065.2	2646.4	µg/L	2646.4	ppb	14:49:26
2	Pb 220.353†	1691.2	1666.1	569.95	µg/L	569.95	ppb	14:49:26

2	S 181.975 Axial†	283.2	272.0	1132.7 µg/L	1132.7 ppb	14:49:26
2	Sb 206.836†	497.5	481.4	572.19 µg/L	572.19 ppb	14:49:26
2	Se 196.026†	425.4	414.3	573.89 µg/L	573.89 ppb	14:49:26
2	SiO2†	26016.6	24888.3	5832.4 µg/L	5832.4 ppb	14:49:06
2	Si 251.611†	31133.8	31070.2	2723.7 µg/L	2723.7 ppb	14:49:06
2	Sn 189.927†	1117.5	1119.5	565.46 µg/L	565.46 ppb	14:49:26
2	Sr 421.552†	101880.9	100512.4	510.18 µg/L	510.18 ppb	14:47:31
2	Ti 334.940†	186681.8	188419.6	537.39 µg/L	537.39 ppb	14:49:00
2	Tl 190.801†	399.5	429.5	545.89 µg/L	545.89 ppb	14:49:26
2	U 409.014†	5420.4	5356.6	526.28 µg/L	526.28 ppb	14:49:06
2	V 292.402†	39305.4	39840.8	549.75 µg/L	549.75 ppb	14:49:06
2	Zn 213.857†	19473.2	19127.8	550.16 µg/L	550.16 ppb	14:49:06
3	Sc 361.383	1590910.3	1590910.3	99.906 %		14:49:33
3	Sc RADIAL	99373.6	99373.6	101 %		14:47:57
3	Y 371.029	1108046.7	1108046.7	99.586 %		14:49:33
3	Ag 328.068†	53730.4	53559.1	493.29 µg/L	493.29 ppb	14:49:38
3	Al 396.153Radial†	9602.9	9727.9	5341.5 µg/L	5341.5 ppb	14:47:57
3	As 188.979†	240.6	239.2	472.87 µg/L	472.87 ppb	14:49:59
3	B 249.677†	10002.9	8674.0	491.06 µg/L	491.06 ppb	14:49:38
3	Ba 233.527†	18515.4	18560.6	514.48 µg/L	514.48 ppb	14:49:38
3	Be 313.107†	632113.1	634931.9	488.73 µg/L	488.73 ppb	14:49:33
3	Ca 317.933Radial†	14394.0	13959.4	5343.8 µg/L	5343.8 ppb	14:48:17
3	Cd 226.502†	15664.6	15821.3	502.85 µg/L	502.85 ppb	14:49:38
3	Co 228.616†	9009.0	9003.5	501.29 µg/L	501.29 ppb	14:49:38
3	Cr 267.716†	18995.0	18933.9	532.23 µg/L	532.23 ppb	14:49:38
3	Cu 324.752†	70542.4	67947.1	522.48 µg/L	522.48 ppb	14:49:38
3	Fe 238.204 Radial†	609.9	581.4	5424.3 µg/L	5424.3 ppb	14:48:17
3	K 766.490 Radial†	9232.3	8959.6	5343.1 µg/L	5343.1 ppb	14:47:57
3	Mg 279.077 IEC†	467.6	457.0	5502.7 µg/L	5502.7 ppb	14:48:17
3	Mn 257.610†	130235.4	130921.1	516.82 µg/L	516.82 ppb	14:49:33
3	Mo 202.031†	3871.5	3870.6	484.15 µg/L	484.15 ppb	14:49:59
3	Na 589.592 Radial†	25004.2	24633.0	10583 µg/L	10583 ppb	14:47:57
3	Ni 231.604†	7227.1	6944.2	526.94 µg/L	526.94 ppb	14:49:38
3	P 214.914†	927.9	905.5	2243.5 µg/L	2243.5 ppb	14:49:59
3	Pb 220.353†	1552.3	1512.9	517.45 µg/L	517.45 ppb	14:49:59
3	S 181.975 Axial†	261.9	248.3	1034.1 µg/L	1034.1 ppb	14:49:59
3	Sb 206.836†	444.1	423.8	503.16 µg/L	503.16 ppb	14:49:59
3	Se 196.026†	381.1	366.3	508.98 µg/L	508.98 ppb	14:49:59
3	SiO2†	24860.1	23511.1	5509.7 µg/L	5509.7 ppb	14:49:38
3	Si 251.611†	29669.9	29342.1	2572.2 µg/L	2572.2 ppb	14:49:38
3	Sn 189.927†	937.2	929.7	469.65 µg/L	469.65 ppb	14:49:59
3	Sr 421.552†	101358.9	100707.0	511.17 µg/L	511.17 ppb	14:47:57
3	Ti 334.940†	176060.1	176212.0	502.55 µg/L	502.55 ppb	14:49:33
3	Tl 190.801†	361.2	387.8	493.04 µg/L	493.04 ppb	14:49:59
3	U 409.014†	4861.2	4751.0	466.66 µg/L	466.66 ppb	14:49:38
3	V 292.402†	36221.4	36422.1	502.34 µg/L	502.34 ppb	14:49:38
3	Zn 213.857†	18317.3	17806.3	512.11 µg/L	512.11 ppb	14:49:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1583011.4	99.410	%	0.4392				0.44%
Sc RADIAL	99780.9	101	%	0.4				0.37%
Y 371.029	1101731.2	99.019	%	0.4957				0.50%
Ag 328.068†	55822.1	514.17	µg/L	18.078	514.17	ppb	18.078	3.52%
QC value within limits for Ag 328.068 Recovery = 102.83%								
Al 396.153Radial†	9783.4	5370.9	µg/L	43.72	5370.9	ppb	43.72	0.81%
QC value within limits for Al 396.153Radial Recovery = 107.42%								
As 188.979†	266.1	526.13	µg/L	46.320	526.13	ppb	46.320	8.80%
QC value within limits for As 188.979 Recovery = 105.23%								
B 249.677†	9070.8	513.65	µg/L	19.683	513.65	ppb	19.683	3.83%
QC value within limits for B 249.677 Recovery = 102.73%								
Ba 233.527†	19169.5	531.38	µg/L	15.302	531.38	ppb	15.302	2.88%
QC value within limits for Ba 233.527 Recovery = 106.28%								
Be 313.107†	668222.6	514.36	µg/L	22.217	514.36	ppb	22.217	4.32%
QC value within limits for Be 313.107 Recovery = 102.87%								
Ca 317.933Radial†	13920.4	5328.9	µg/L	18.67	5328.9	ppb	18.67	0.35%
QC value within limits for Ca 317.933Radial Recovery = 106.58%								
Cd 226.502†	16588.5	527.27	µg/L	21.599	527.27	ppb	21.599	4.10%
QC value within limits for Cd 226.502 Recovery = 105.45%								

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Co 228.616†            9479.1      527.80 µg/L        23.188      527.80 ppb        23.188   4.39%
   QC value within limits for Co 228.616  Recovery = 105.56%
Cr 267.716†           19559.1      549.81 µg/L        19.214      549.81 ppb        19.214   3.49%
   QC value within limits for Cr 267.716  Recovery = 109.96%
Cu 324.752†           69885.4      537.35 µg/L        14.039      537.35 ppb        14.039   2.61%
   QC value within limits for Cu 324.752  Recovery = 107.47%
Fe 238.204 Radial†      579.6      5408.0 µg/L         27.38      5408.0 ppb         27.38   0.51%
   QC value within limits for Fe 238.204 Radial  Recovery = 108.16%
K 766.490 Radial†      8955.0      5340.4 µg/L         55.81      5340.4 ppb         55.81   1.04%
   QC value within limits for K 766.490 Radial  Recovery = 106.81%
Mg 279.077 IEC†         455.8      5489.2 µg/L         11.80      5489.2 ppb         11.80   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.78%
Mn 257.610†          135642.4      535.46 µg/L        16.352      535.46 ppb        16.352   3.05%
   QC value within limits for Mn 257.610  Recovery = 107.09%
Mo 202.031†            4305.8      538.57 µg/L        47.138      538.57 ppb        47.138   8.75%
   QC value within limits for Mo 202.031  Recovery = 107.71%
Na 589.592 Radial†    24654.4       10592 µg/L          45.2       10592 ppb          45.2   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 105.92%
Ni 231.604†            7282.3      552.60 µg/L        22.689      552.60 ppb        22.689   4.11%
   QC value greater than the upper limit for Ni 231.604  Recovery = 110.52%
P 214.914†             1015.7      2522.0 µg/L        241.73      2522.0 ppb        241.73   9.58%
   QC value within limits for P 214.914  Recovery = 100.88%
Pb 220.353†            1602.2      548.07 µg/L        27.324      548.07 ppb        27.324   4.99%
   QC value within limits for Pb 220.353  Recovery = 109.61%
S 181.975 Axial†        263.8      1098.3 µg/L         55.66      1098.3 ppb         55.66   5.07%
   QC value within limits for S 181.975 Axial  Recovery = 109.83%
Sb 206.836†             460.6      547.42 µg/L        38.418      547.42 ppb        38.418   7.02%
   QC value within limits for Sb 206.836  Recovery = 109.48%
Se 196.026†             397.2      550.71 µg/L        36.212      550.71 ppb        36.212   6.58%
   QC value greater than the upper limit for Se 196.026  Recovery = 110.14%
SiO2†                  24327.6      5701.0 µg/L        169.52      5701.0 ppb        169.52   2.97%
   QC value within limits for SiO2  Recovery = 106.61%
Si 251.611†           30370.9      2662.4 µg/L         79.77      2662.4 ppb         79.77   3.00%
   QC value within limits for Si 251.611  Recovery = 106.50%
Sn 189.927†            1053.8      532.28 µg/L        54.266      532.28 ppb        54.266  10.20%
   QC value within limits for Sn 189.927  Recovery = 106.46%
Sr 421.552†          100880.7      512.05 µg/L         2.433      512.05 ppb         2.433   0.48%
   QC value within limits for Sr 421.552  Recovery = 102.41%
Ti 334.940†          183604.5      523.65 µg/L        18.549      523.65 ppb        18.549   3.54%
   QC value within limits for Ti 334.940  Recovery = 104.73%
Tl 190.801†             414.3      526.63 µg/L        29.190      526.63 ppb        29.190   5.54%
   QC value within limits for Tl 190.801  Recovery = 105.33%
U 409.014†             5152.8      506.22 µg/L        34.261      506.22 ppb        34.261   6.77%
   QC value within limits for U 409.014  Recovery = 101.24%
V 292.402†            38524.8      531.51 µg/L        25.529      531.51 ppb        25.529   4.80%
   QC value within limits for V 292.402  Recovery = 106.30%
Zn 213.857†           18558.0      533.75 µg/L        19.556      533.75 ppb        19.556   3.66%
   QC value within limits for Zn 213.857  Recovery = 106.75%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/27/2010 14:50:09
Data Type: Reprocessed on 2/27/2010 15:23:51

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	1567197.6	1567197.6	98.417	%			14:52:04
1	Sc RADIAL	99764.9	99764.9	101	%			14:50:41
1	Y 371.029	1095705.8	1095705.8	98.477	%			14:52:04
1	Ag 328.068†	223.8	5.6	0.0588	µg/L	0.0588	ppb	14:52:09
1	Al 396.153Radial†	-126.0	48.1	26.403	µg/L	26.403	ppb	14:50:41
1	As 188.979†	1.7	0.1	0.1897	µg/L	0.1897	ppb	14:52:30
1	B 249.677†	1292.2	-25.3	-1.4558	µg/L	-1.4558	ppb	14:52:09
1	Ba 233.527†	-1.6	26.1	0.7222	µg/L	0.7222	ppb	14:52:30
1	Be 313.107†	-1847.5	346.9	0.2668	µg/L	0.2668	ppb	14:52:09
1	Ca 317.933Radial†	381.9	15.7	6.0278	µg/L	6.0278	ppb	14:51:02
1	Cd 226.502†	-125.5	14.4	0.4536	µg/L	0.4536	ppb	14:52:30
1	Co 228.616†	18.9	5.3	0.2967	µg/L	0.2967	ppb	14:52:30
1	Cr 267.716†	108.4	31.1	0.8750	µg/L	0.8750	ppb	14:52:30
1	Cu 324.752†	2676.7	58.1	0.4525	µg/L	0.4525	ppb	14:52:09
1	Fe 238.204 Radial†	29.6	3.9	35.952	µg/L	35.952	ppb	14:51:02
1	K 766.490 Radial†	397.6	167.4	99.810	µg/L	99.810	ppb	14:50:41
1	Mg 279.077 IEC†	15.0	6.5	78.638	µg/L	78.638	ppb	14:51:02
1	Mn 257.610†	-416.4	140.0	0.5495	µg/L	0.5495	ppb	14:52:30
1	Mo 202.031†	21.6	17.5	2.1872	µg/L	2.1872	ppb	14:52:30
1	Na 589.592 Radial†	328.0	78.6	33.778	µg/L	33.778	ppb	14:50:41
1	Ni 231.604†	301.5	16.6	1.2632	µg/L	1.2632	ppb	14:52:30
1	P 214.914†	22.9	0.0	0.0304	µg/L	0.0304	ppb	14:52:30
1	Pb 220.353†	50.9	10.8	3.7075	µg/L	3.7075	ppb	14:52:30
1	S 181.975 Axial†	19.9	6.4	26.824	µg/L	26.824	ppb	14:52:30
1	Sb 206.836†	24.0	3.6	4.3376	µg/L	4.3376	ppb	14:52:30
1	Se 196.026†	19.0	4.3	5.8354	µg/L	5.8354	ppb	14:52:30
1	SiO2†	1431.3	81.9	19.193	µg/L	19.193	ppb	14:52:09
1	Si 251.611†	483.4	135.4	11.873	µg/L	11.873	ppb	14:52:30
1	Sn 189.927†	9.2	0.9	0.4668	µg/L	0.4668	ppb	14:52:30
1	Sr 421.552†	190.3	42.5	0.2160	µg/L	0.2160	ppb	14:50:41
1	Ti 334.940†	271.6	262.3	0.7424	µg/L	0.7424	ppb	14:52:09
1	Tl 190.801†	-22.4	3.5	4.4246	µg/L	4.4246	ppb	14:52:30
1	U 409.014†	44.6	-69.4	-6.8343	µg/L	-6.8343	ppb	14:52:09
1	V 292.402†	-114.2	50.6	0.7025	µg/L	0.7025	ppb	14:52:09
1	Zn 213.857†	584.9	66.2	1.9054	µg/L	1.9054	ppb	14:52:30
2	Sc 361.383	1571912.9	1571912.9	98.713	%			14:52:35
2	Sc RADIAL	99352.5	99352.5	100	%			14:51:07
2	Y 371.029	1100545.2	1100545.2	98.912	%			14:52:35
2	Ag 328.068†	289.7	71.7	0.6678	µg/L	0.6678	ppb	14:52:41
2	Al 396.153Radial†	-141.7	31.9	17.491	µg/L	17.491	ppb	14:51:07
2	As 188.979†	7.6	6.1	12.010	µg/L	12.010	ppb	14:53:01
2	B 249.677†	1274.4	-47.3	-2.7010	µg/L	-2.7010	ppb	14:52:41
2	Ba 233.527†	25.7	53.8	1.4900	µg/L	1.4900	ppb	14:53:01
2	Be 313.107†	-1257.0	950.6	0.7314	µg/L	0.7314	ppb	14:52:41
2	Ca 317.933Radial†	385.6	21.0	8.0343	µg/L	8.0343	ppb	14:51:28
2	Cd 226.502†	-91.1	49.7	1.5770	µg/L	1.5770	ppb	14:53:01
2	Co 228.616†	36.5	23.0	1.2839	µg/L	1.2839	ppb	14:53:01
2	Cr 267.716†	150.7	73.7	2.0705	µg/L	2.0705	ppb	14:53:01
2	Cu 324.752†	2767.4	141.8	1.0938	µg/L	1.0938	ppb	14:52:41
2	Fe 238.204 Radial†	28.9	3.3	31.096	µg/L	31.096	ppb	14:51:28
2	K 766.490 Radial†	269.4	41.5	24.723	µg/L	24.723	ppb	14:51:07
2	Mg 279.077 IEC†	12.6	4.2	50.601	µg/L	50.601	ppb	14:51:28
2	Mn 257.610†	-202.7	357.8	1.4109	µg/L	1.4109	ppb	14:53:01
2	Mo 202.031†	28.5	24.3	3.0436	µg/L	3.0436	ppb	14:53:01
2	Na 589.592 Radial†	357.5	109.3	46.964	µg/L	46.964	ppb	14:51:07
2	Ni 231.604†	312.5	26.9	2.0393	µg/L	2.0393	ppb	14:53:01
2	P 214.914†	24.0	1.1	2.5899	µg/L	2.5899	ppb	14:53:01
2	Pb 220.353†	53.7	13.5	4.6014	µg/L	4.6014	ppb	14:53:01

2	S 181.975 Axial†	19.3	5.8	24.019 µg/L	24.019 ppb		14:53:01
2	Sb 206.836†	28.3	7.9	9.4198 µg/L	9.4198 ppb		14:53:01
2	Se 196.026†	15.1	0.2	0.3864 µg/L	0.3864 ppb		14:53:01
2	SiO2†	1484.8	131.7	30.873 µg/L	30.873 ppb		14:52:41
2	Si 251.611†	520.3	171.4	15.022 µg/L	15.022 ppb		14:53:01
2	Sn 189.927†	7.0	-1.3	-0.6611 µg/L	-0.6611 ppb		14:53:01
2	Sr 421.552†	180.5	33.5	0.1702 µg/L	0.1702 ppb		14:51:07
2	Ti 334.940†	553.3	546.8	1.5565 µg/L	1.5565 ppb		14:52:41
2	Tl 190.801†	-20.3	5.7	7.1756 µg/L	7.1756 ppb		14:53:01
2	U 409.014†	193.9	81.8	8.0446 µg/L	8.0446 ppb		14:52:41
2	V 292.402†	-58.8	107.1	1.4981 µg/L	1.4981 ppb		14:52:41
2	Zn 213.857†	617.0	96.9	2.7925 µg/L	2.7925 ppb		14:53:01
3	Sc 361.383	1584724.5	1584724.5	99.518 %			14:53:07
3	Sc RADIAL	100057.2	100057.2	101 %			14:51:33
3	Y 371.029	1107986.5	1107986.5	99.581 %			14:53:07
3	Ag 328.068†	368.9	148.9	1.3808 µg/L	1.3808 ppb		14:53:12
3	Al 396.153Radial†	-102.0	72.2	39.610 µg/L	39.610 ppb		14:51:33
3	As 188.979†	4.1	2.4	4.8394 µg/L	4.8394 ppb		14:53:33
3	B 249.677†	1287.0	-45.0	-2.5813 µg/L	-2.5813 ppb		14:53:12
3	Ba 233.527†	52.4	80.3	2.2274 µg/L	2.2274 ppb		14:53:33
3	Be 313.107†	317.6	2543.2	1.9574 µg/L	1.9574 ppb		14:53:12
3	Ca 317.933Radial†	386.0	18.7	7.1517 µg/L	7.1517 ppb		14:51:54
3	Cd 226.502†	-57.4	84.2	2.6751 µg/L	2.6751 ppb		14:53:33
3	Co 228.616†	52.5	38.9	2.1643 µg/L	2.1643 ppb		14:53:33
3	Cr 267.716†	172.5	94.3	2.6513 µg/L	2.6513 ppb		14:53:33
3	Cu 324.752†	2967.1	319.8	2.4639 µg/L	2.4639 ppb		14:53:12
3	Fe 238.204 Radial†	31.4	5.5	51.631 µg/L	51.631 ppb		14:51:54
3	K 766.490 Radial†	419.7	188.1	112.17 µg/L	112.17 ppb		14:51:33
3	Mg 279.077 IEC†	11.0	2.5	30.164 µg/L	30.164 ppb		14:51:54
3	Mn 257.610†	35.9	599.2	2.3668 µg/L	2.3668 ppb		14:53:33
3	Mo 202.031†	39.2	34.9	4.3638 µg/L	4.3638 ppb		14:53:33
3	Na 589.592 Radial†	311.6	61.5	26.411 µg/L	26.411 ppb		14:51:33
3	Ni 231.604†	332.3	44.2	3.3586 µg/L	3.3586 ppb		14:53:33
3	P 214.914†	25.9	2.8	6.8965 µg/L	6.8965 ppb		14:53:33
3	Pb 220.353†	42.9	2.2	0.7601 µg/L	0.7601 ppb		14:53:33
3	S 181.975 Axial†	18.3	4.6	19.287 µg/L	19.287 ppb		14:53:33
3	Sb 206.836†	26.1	5.4	6.4811 µg/L	6.4811 ppb		14:53:33
3	Se 196.026†	18.1	3.1	4.3634 µg/L	4.3634 ppb		14:53:33
3	SiO2†	1542.6	177.6	41.630 µg/L	41.630 ppb		14:53:12
3	Si 251.611†	579.4	226.4	19.851 µg/L	19.851 ppb		14:53:33
3	Sn 189.927†	12.8	4.4	2.2262 µg/L	2.2262 ppb		14:53:33
3	Sr 421.552†	173.4	25.2	0.1281 µg/L	0.1281 ppb		14:51:33
3	Ti 334.940†	949.9	940.7	2.6825 µg/L	2.6825 ppb		14:53:12
3	Tl 190.801†	-20.3	5.8	7.3730 µg/L	7.3730 ppb		14:53:33
3	U 409.014†	78.7	-35.6	-3.5162 µg/L	-3.5162 ppb		14:53:12
3	V 292.402†	7.7	174.4	2.4159 µg/L	2.4159 ppb		14:53:12
3	Zn 213.857†	654.4	129.4	3.7256 µg/L	3.7256 ppb		14:53:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1574611.7	98.882	%	0.5696				0.58%
Sc RADIAL	99724.8	101	%	0.4				0.36%
Y 371.029	1101412.5	98.990	%	0.5560				0.56%
Ag 328.068†	75.4	0.7025	µg/L	0.66169	0.7025	ppb	0.66169	94.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	50.7	27.835	µg/L	11.1287	27.835	ppb	11.1287	39.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.9	5.6797	µg/L	5.95485	5.6797	ppb	5.95485	104.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-39.2	-2.2460	µg/L	0.68701	-2.2460	ppb	0.68701	30.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	53.4	1.4799	µg/L	0.75263	1.4799	ppb	0.75263	50.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	1280.2	0.9852	µg/L	0.87338	0.9852	ppb	0.87338	88.65%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	18.5	7.0713	µg/L	1.00565	7.0713	ppb	1.00565	14.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	49.4	1.5685	µg/L	1.11079	1.5685	ppb	1.11079	70.82%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                22.4      1.2483 µg/L       0.93427      1.2483 ppb        0.93427  74.84%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                66.4      1.8656 µg/L       0.90568      1.8656 ppb        0.90568  48.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               173.2      1.3367 µg/L       1.02744      1.3367 ppb        1.02744  76.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          4.2      39.559 µg/L       10.7322      39.559 ppb        10.7322  27.13%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         132.3      78.901 µg/L       47.3256      78.901 ppb        47.3256  59.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.4      53.135 µg/L       24.3361      53.135 ppb        24.3361  45.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               365.7      1.4424 µg/L       0.90904      1.4424 ppb        0.90904  63.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                25.6      3.1982 µg/L       1.09651      3.1982 ppb        1.09651  34.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         83.1      35.718 µg/L       10.4130      35.718 ppb        10.4130  29.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                29.2      2.2204 µg/L       1.05933      2.2204 ppb        1.05933  47.71%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.3      3.1723 µg/L       3.46991      3.1723 ppb        3.46991 109.38%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.8      3.0230 µg/L       2.01009      3.0230 ppb        2.01009  66.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.6      23.377 µg/L        3.8095      23.377 ppb         3.8095  16.30%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.7      6.7461 µg/L       2.55145      6.7461 ppb        2.55145  37.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.5      3.5284 µg/L       2.81881      3.5284 ppb        2.81881  79.89%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     130.4      30.565 µg/L       11.2220      30.565 ppb        11.2220  36.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               177.7      15.582 µg/L        4.0185      15.582 ppb         4.0185  25.79%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.3      0.6773 µg/L       1.45510      0.6773 ppb        1.45510 214.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                33.8      0.1714 µg/L       0.04395      0.1714 ppb        0.04395  25.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               583.3      1.6605 µg/L       0.97425      1.6605 ppb        0.97425  58.67%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.0      6.3244 µg/L       1.64822      6.3244 ppb        1.64822  26.06%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -7.7     -0.7687 µg/L       7.81070     -0.7687 ppb        7.81070 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                110.7      1.5388 µg/L       0.85741      1.5388 ppb        0.85741  55.72%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                97.5      2.8078 µg/L       0.91019      2.8078 ppb        0.91019  32.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/27/2010 15:02:27
Data Type: Reprocessed on 2/27/2010 15:24:48

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1612217.0	1612217.0	101.24	%			15:04:24
1	Sc RADIAL	102276.8	102276.8	103	%			15:03:01
1	Y 371.029	1120536.0	1120536.0	100.71	%			15:04:24
1	Ag 328.068†	55457.3	54554.1	502.48	µg/L	502.48	ppb	15:04:29
1	Al 396.153Radial†	9472.8	9330.9	5122.1	µg/L	5122.1	ppb	15:03:01
1	As 188.979†	270.7	265.8	525.64	µg/L	525.64	ppb	15:04:50
1	B 249.677†	10210.6	8746.9	495.31	µg/L	495.31	ppb	15:04:29
1	Ba 233.527†	18820.6	18617.1	516.07	µg/L	516.07	ppb	15:04:29
1	Be 313.107†	670428.3	664414.5	511.43	µg/L	511.43	ppb	15:04:24
1	Ca 317.933Radial†	14547.0	13700.8	5244.8	µg/L	5244.8	ppb	15:03:01
1	Cd 226.502†	16367.6	16308.4	518.38	µg/L	518.38	ppb	15:04:29
1	Co 228.616†	9465.2	9335.0	519.80	µg/L	519.80	ppb	15:04:29
1	Cr 267.716†	18819.7	18509.4	520.31	µg/L	520.31	ppb	15:04:29
1	Cu 324.752†	69708.3	66190.0	508.95	µg/L	508.95	ppb	15:04:29
1	Fe 238.204 Radial†	601.3	555.8	5186.6	µg/L	5186.6	ppb	15:03:21
1	K 766.490 Radial†	8785.9	8267.2	4930.3	µg/L	4930.3	ppb	15:03:01
1	Mg 279.077 IEC†	462.9	439.2	5289.4	µg/L	5289.4	ppb	15:03:21
1	Mn 257.610†	131828.2	130771.5	516.23	µg/L	516.23	ppb	15:04:29
1	Mo 202.031†	4308.5	4251.0	531.71	µg/L	531.71	ppb	15:04:50
1	Na 589.592 Radial†	24480.3	23420.2	10062	µg/L	10062	ppb	15:03:01
1	Ni 231.604†	7515.4	7133.4	541.29	µg/L	541.29	ppb	15:04:29
1	P 214.914†	1085.1	1048.5	2608.3	µg/L	2608.3	ppb	15:04:50
1	Pb 220.353†	1616.2	1555.4	532.09	µg/L	532.09	ppb	15:04:50
1	S 181.975 Axial†	270.6	253.5	1055.4	µg/L	1055.4	ppb	15:04:50
1	Sb 206.836†	465.8	439.3	522.40	µg/L	522.40	ppb	15:04:50
1	Se 196.026†	413.5	393.3	544.84	µg/L	544.84	ppb	15:04:50
1	SiO2†	24985.0	23305.6	5461.5	µg/L	5461.5	ppb	15:04:29
1	Si 251.611†	29869.7	29146.9	2555.1	µg/L	2555.1	ppb	15:04:29
1	Sn 189.927†	1084.2	1062.4	536.63	µg/L	536.63	ppb	15:04:50
1	Sr 421.552†	99758.4	96297.0	488.78	µg/L	488.78	ppb	15:03:01
1	Ti 334.940†	180307.2	178077.9	507.89	µg/L	507.89	ppb	15:04:24
1	Tl 190.801†	385.9	407.4	517.69	µg/L	517.69	ppb	15:04:50
1	U 409.014†	5347.2	5166.8	507.63	µg/L	507.63	ppb	15:04:29
1	V 292.402†	37905.2	37606.1	518.85	µg/L	518.85	ppb	15:04:29
1	Zn 213.857†	18692.6	17934.8	515.81	µg/L	515.81	ppb	15:04:29
2	Sc 361.383	1620621.1	1620621.1	101.77	%			15:04:56
2	Sc RADIAL	102004.1	102004.1	103	%			15:03:27
2	Y 371.029	1127633.7	1127633.7	101.35	%			15:04:56
2	Ag 328.068†	55493.4	54305.5	500.18	µg/L	500.18	ppb	15:05:01
2	Al 396.153Radial†	9551.7	9431.9	5177.9	µg/L	5177.9	ppb	15:03:27
2	As 188.979†	270.6	264.3	522.64	µg/L	522.64	ppb	15:05:22
2	B 249.677†	10226.4	8710.1	493.24	µg/L	493.24	ppb	15:05:01
2	Ba 233.527†	18715.1	18417.0	510.53	µg/L	510.53	ppb	15:05:01
2	Be 313.107†	665910.1	656541.1	505.37	µg/L	505.37	ppb	15:04:56
2	Ca 317.933Radial†	14565.4	13756.3	5266.0	µg/L	5266.0	ppb	15:03:27
2	Cd 226.502†	16308.4	16166.4	513.87	µg/L	513.87	ppb	15:05:01
2	Co 228.616†	9414.3	9236.5	514.31	µg/L	514.31	ppb	15:05:01
2	Cr 267.716†	18754.1	18348.6	515.79	µg/L	515.79	ppb	15:05:01
2	Cu 324.752†	69653.8	65779.4	505.79	µg/L	505.79	ppb	15:05:01
2	Fe 238.204 Radial†	593.3	549.7	5129.4	µg/L	5129.4	ppb	15:03:47
2	K 766.490 Radial†	8939.0	8438.3	5032.3	µg/L	5032.3	ppb	15:03:27
2	Mg 279.077 IEC†	460.6	438.2	5277.5	µg/L	5277.5	ppb	15:03:47
2	Mn 257.610†	131274.9	129552.6	511.42	µg/L	511.42	ppb	15:05:01
2	Mo 202.031†	4237.5	4159.3	520.23	µg/L	520.23	ppb	15:05:22
2	Na 589.592 Radial†	24559.6	23560.4	10122	µg/L	10122	ppb	15:03:27
2	Ni 231.604†	7522.5	7101.8	538.90	µg/L	538.90	ppb	15:05:01
2	P 214.914†	1064.9	1023.1	2544.1	µg/L	2544.1	ppb	15:05:22
2	Pb 220.353†	1592.8	1524.1	521.39	µg/L	521.39	ppb	15:05:22

2	S 181.975 Axial†	266.7	248.2	1033.6 µg/L	1033.6 ppb	15:05:22
2	Sb 206.836†	460.7	431.9	513.52 µg/L	513.52 ppb	15:05:22
2	Se 196.026†	406.4	384.2	532.33 µg/L	532.33 ppb	15:05:22
2	SiO2†	25039.7	23231.4	5444.1 µg/L	5444.1 ppb	15:05:01
2	Si 251.611†	29916.6	29040.1	2545.8 µg/L	2545.8 ppb	15:05:01
2	Sn 189.927†	1071.2	1044.1	527.41 µg/L	527.41 ppb	15:05:22
2	Sr 421.552†	99947.3	96738.0	491.02 µg/L	491.02 ppb	15:03:27
2	Ti 334.940†	179322.1	176186.4	502.49 µg/L	502.49 ppb	15:04:56
2	Tl 190.801†	393.8	413.2	524.88 µg/L	524.88 ppb	15:05:22
2	U 409.014†	5238.6	5032.7	494.44 µg/L	494.44 ppb	15:05:01
2	V 292.402†	37867.4	37374.7	515.58 µg/L	515.58 ppb	15:05:01
2	Zn 213.857†	18651.1	17798.2	511.87 µg/L	511.87 ppb	15:05:01
3	Sc 361.383	1619780.1	1619780.1	101.72 %		15:05:28
3	Sc RADIAL	101748.0	101748.0	103 %		15:03:53
3	Y 371.029	1127501.4	1127501.4	101.34 %		15:05:28
3	Ag 328.068†	52294.9	51189.4	471.36 µg/L	471.36 ppb	15:05:34
3	Al 396.153Radial†	9478.0	9383.6	5153.0 µg/L	5153.0 ppb	15:03:53
3	As 188.979†	236.1	230.5	455.77 µg/L	455.77 ppb	15:05:54
3	B 249.677†	9673.0	8171.2	462.48 µg/L	462.48 ppb	15:05:34
3	Ba 233.527†	17193.8	16930.9	469.32 µg/L	469.32 ppb	15:05:34
3	Be 313.107†	620965.7	612695.8	471.62 µg/L	471.62 ppb	15:05:28
3	Ca 317.933Radial†	14471.5	13700.5	5244.7 µg/L	5244.7 ppb	15:03:53
3	Cd 226.502†	14850.3	14741.2	468.51 µg/L	468.51 ppb	15:05:34
3	Co 228.616†	8532.3	8374.2	466.24 µg/L	466.24 ppb	15:05:34
3	Cr 267.716†	16512.2	16154.2	454.11 µg/L	454.11 ppb	15:05:34
3	Cu 324.752†	63494.1	59759.4	459.60 µg/L	459.60 ppb	15:05:34
3	Fe 238.204 Radial†	599.6	557.3	5198.9 µg/L	5198.9 ppb	15:04:13
3	K 766.490 Radial†	8744.1	8270.7	4932.4 µg/L	4932.4 ppb	15:03:53
3	Mg 279.077 IEC†	465.3	443.9	5344.1 µg/L	5344.1 ppb	15:04:13
3	Mn 257.610†	118736.9	117293.5	463.02 µg/L	463.02 ppb	15:05:34
3	Mo 202.031†	3571.6	3506.8	438.66 µg/L	438.66 ppb	15:05:54
3	Na 589.592 Radial†	24474.0	23537.1	10112 µg/L	10112 ppb	15:03:53
3	Ni 231.604†	6885.8	6479.8	491.71 µg/L	491.71 ppb	15:05:34
3	P 214.914†	924.1	885.2	2198.2 µg/L	2198.2 ppb	15:05:54
3	Pb 220.353†	1392.8	1328.3	454.37 µg/L	454.37 ppb	15:05:54
3	S 181.975 Axial†	238.5	220.6	918.73 µg/L	918.73 ppb	15:05:54
3	Sb 206.836†	394.4	367.0	436.11 µg/L	436.11 ppb	15:05:54
3	Se 196.026†	357.5	336.4	467.86 µg/L	467.86 ppb	15:05:54
3	SiO2†	23295.6	21529.6	5045.3 µg/L	5045.3 ppb	15:05:34
3	Si 251.611†	27735.8	26911.3	2359.1 µg/L	2359.1 ppb	15:05:34
3	Sn 189.927†	883.2	859.8	434.38 µg/L	434.38 ppb	15:05:54
3	Sr 421.552†	99580.1	96624.9	490.45 µg/L	490.45 ppb	15:03:53
3	Ti 334.940†	166049.6	163229.7	465.51 µg/L	465.51 ppb	15:05:28
3	Tl 190.801†	351.0	371.3	471.79 µg/L	471.79 ppb	15:05:54
3	U 409.014†	4664.4	4470.9	439.12 µg/L	439.12 ppb	15:05:34
3	V 292.402†	34022.3	33614.0	463.47 µg/L	463.47 ppb	15:05:34
3	Zn 213.857†	16940.8	16126.4	463.72 µg/L	463.72 ppb	15:05:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1617539.4	101.58	%	0.291				0.29%
Sc RADIAL	102009.6	103	%	0.3				0.26%
Y 371.029	1125223.7	101.13	%	0.365				0.36%
Ag 328.068†	53349.7	491.34	µg/L	17.340	491.34	ppb	17.340	3.53%
QC value within limits for Ag 328.068 Recovery = 98.27%								
Al 396.153Radial†	9382.1	5151.0	µg/L	27.96	5151.0	ppb	27.96	0.54%
QC value within limits for Al 396.153Radial Recovery = 103.02%								
As 188.979†	253.5	501.35	µg/L	39.503	501.35	ppb	39.503	7.88%
QC value within limits for As 188.979 Recovery = 100.27%								
B 249.677†	8542.7	483.68	µg/L	18.388	483.68	ppb	18.388	3.80%
QC value within limits for B 249.677 Recovery = 96.74%								
Ba 233.527†	17988.3	498.64	µg/L	25.545	498.64	ppb	25.545	5.12%
QC value within limits for Ba 233.527 Recovery = 99.73%								
Be 313.107†	644550.5	496.14	µg/L	21.449	496.14	ppb	21.449	4.32%
QC value within limits for Be 313.107 Recovery = 99.23%								
Ca 317.933Radial†	13719.2	5251.8	µg/L	12.29	5251.8	ppb	12.29	0.23%
QC value within limits for Ca 317.933Radial Recovery = 105.04%								
Cd 226.502†	15738.7	500.25	µg/L	27.583	500.25	ppb	27.583	5.51%
QC value within limits for Cd 226.502 Recovery = 100.05%								

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Co 228.616†            8981.9      500.12 µg/L        29.463      500.12 ppb        29.463   5.89%
   QC value within limits for Co 228.616  Recovery = 100.02%
Cr 267.716†           17670.7      496.74 µg/L        36.985      496.74 ppb        36.985   7.45%
   QC value within limits for Cr 267.716  Recovery = 99.35%
Cu 324.752†           63909.6      491.45 µg/L        27.625      491.45 ppb        27.625   5.62%
   QC value within limits for Cu 324.752  Recovery = 98.29%
Fe 238.204 Radial†      554.3      5171.7 µg/L         37.07      5171.7 ppb         37.07   0.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.43%
K 766.490 Radial†      8325.4      4965.0 µg/L         58.32      4965.0 ppb         58.32   1.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.30%
Mg 279.077 IEC†         440.4      5303.6 µg/L         35.52      5303.6 ppb         35.52   0.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.07%
Mn 257.610†          125872.5      496.89 µg/L        29.432      496.89 ppb        29.432   5.92%
   QC value within limits for Mn 257.610  Recovery = 99.38%
Mo 202.031†            3972.4      496.87 µg/L        50.737      496.87 ppb        50.737  10.21%
   QC value within limits for Mo 202.031  Recovery = 99.37%
Na 589.592 Radial†    23505.9       10099 µg/L          32.3       10099 ppb          32.3   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 100.99%
Ni 231.604†            6905.0      523.96 µg/L        27.961      523.96 ppb        27.961   5.34%
   QC value within limits for Ni 231.604  Recovery = 104.79%
P 214.914†              985.6      2450.2 µg/L        220.60      2450.2 ppb        220.60   9.00%
   QC value within limits for P 214.914  Recovery = 98.01%
Pb 220.353†            1469.3      502.62 µg/L        42.120      502.62 ppb        42.120   8.38%
   QC value within limits for Pb 220.353  Recovery = 100.52%
S 181.975 Axial†        240.8      1002.6 µg/L         73.44      1002.6 ppb         73.44   7.33%
   QC value within limits for S 181.975 Axial  Recovery = 100.26%
Sb 206.836†             412.7      490.68 µg/L        47.463      490.68 ppb        47.463   9.67%
   QC value within limits for Sb 206.836  Recovery = 98.14%
Se 196.026†             371.3      515.01 µg/L        41.312      515.01 ppb        41.312   8.02%
   QC value within limits for Se 196.026  Recovery = 103.00%
SiO2†                  22688.8      5317.0 µg/L        235.43      5317.0 ppb        235.43   4.43%
   QC value within limits for SiO2  Recovery = 99.43%
Si 251.611†            28366.1      2486.7 µg/L        110.54      2486.7 ppb        110.54   4.45%
   QC value within limits for Si 251.611  Recovery = 99.47%
Sn 189.927†             988.8      499.47 µg/L        56.565      499.47 ppb        56.565  11.32%
   QC value within limits for Sn 189.927  Recovery = 99.89%
Sr 421.552†            96553.3      490.09 µg/L         1.163      490.09 ppb         1.163   0.24%
   QC value within limits for Sr 421.552  Recovery = 98.02%
Ti 334.940†           172498.0      491.96 µg/L        23.069      491.96 ppb        23.069   4.69%
   QC value within limits for Ti 334.940  Recovery = 98.39%
Tl 190.801†             397.3      504.79 µg/L        28.801      504.79 ppb        28.801   5.71%
   QC value within limits for Tl 190.801  Recovery = 100.96%
U 409.014†             4890.1      480.40 µg/L        36.352      480.40 ppb        36.352   7.57%
   QC value within limits for U 409.014  Recovery = 96.08%
V 292.402†             36198.3      499.30 µg/L        31.074      499.30 ppb        31.074   6.22%
   QC value within limits for V 292.402  Recovery = 99.86%
Zn 213.857†            17286.5      497.13 µg/L        29.007      497.13 ppb        29.007   5.83%
   QC value within limits for Zn 213.857  Recovery = 99.43%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : optima
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/27/2010 15:06:05
Data Type: Reprocessed on 2/27/2010 15:25:48

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1611689.7	1611689.7	101.21	%			15:08:00
1	Sc RADIAL	101681.3	101681.3	103	%			15:06:37
1	Y 371.029	1128502.8	1128502.8	101.43	%			15:08:00
1	Ag 328.068†	213.0	-11.3	-0.0948	µg/L	-0.0948	ppb	15:08:05
1	Al 396.153Radial†	-140.3	36.5	20.062	µg/L	20.062	ppb	15:06:37
1	As 188.979†	2.8	1.2	2.2857	µg/L	2.2857	ppb	15:08:26
1	B 249.677†	1234.3	-118.8	-6.7690	µg/L	-6.7690	ppb	15:08:05
1	Ba 233.527†	-22.5	5.5	0.1526	µg/L	0.1526	ppb	15:08:26
1	Be 313.107†	-2010.3	237.8	0.1829	µg/L	0.1829	ppb	15:08:05
1	Ca 317.933Radial†	372.1	-0.9	-0.3487	µg/L	-0.3487	ppb	15:06:58
1	Cd 226.502†	-127.2	16.2	0.5115	µg/L	0.5115	ppb	15:08:26
1	Co 228.616†	21.3	7.1	0.3967	µg/L	0.3967	ppb	15:08:26
1	Cr 267.716†	84.8	4.8	0.1343	µg/L	0.1343	ppb	15:08:26
1	Cu 324.752†	2659.2	-34.3	-0.2573	µg/L	-0.2573	ppb	15:08:05
1	Fe 238.204 Radial†	29.8	3.6	33.143	µg/L	33.143	ppb	15:06:58
1	K 766.490 Radial†	250.4	16.8	10.006	µg/L	10.006	ppb	15:06:37
1	Mg 279.077 IEC†	12.1	3.4	41.347	µg/L	41.347	ppb	15:06:58
1	Mn 257.610†	-501.6	67.5	0.2657	µg/L	0.2657	ppb	15:08:26
1	Mo 202.031†	16.7	12.0	1.4968	µg/L	1.4968	ppb	15:08:26
1	Na 589.592 Radial†	275.4	21.3	9.1710	µg/L	9.1710	ppb	15:06:37
1	Ni 231.604†	292.1	-1.1	-0.0843	µg/L	-0.0843	ppb	15:08:26
1	P 214.914†	22.4	-1.1	-2.9132	µg/L	-2.9132	ppb	15:08:26
1	Pb 220.353†	52.2	10.6	3.6279	µg/L	3.6279	ppb	15:08:26
1	S 181.975 Axial†	12.8	-1.1	-4.6213	µg/L	-4.6213	ppb	15:08:26
1	Sb 206.836†	20.8	-0.2	-0.1702	µg/L	-0.1702	ppb	15:08:26
1	Se 196.026†	15.1	-0.2	-0.1811	µg/L	-0.1811	ppb	15:08:26
1	SiO2†	1396.5	7.4	1.7324	µg/L	1.7324	ppb	15:08:05
1	Si 251.611†	382.2	21.9	1.9229	µg/L	1.9229	ppb	15:08:26
1	Sn 189.927†	5.0	-3.5	-1.7622	µg/L	-1.7622	ppb	15:08:26
1	Sr 421.552†	169.3	18.6	0.0944	µg/L	0.0944	ppb	15:06:37
1	Ti 334.940†	158.0	142.4	0.4030	µg/L	0.4030	ppb	15:08:05
1	Tl 190.801†	-29.5	-2.9	-3.6549	µg/L	-3.6549	ppb	15:08:26
1	U 409.014†	221.9	104.5	10.285	µg/L	10.285	ppb	15:08:05
1	V 292.402†	-97.8	70.0	0.9786	µg/L	0.9786	ppb	15:08:05
1	Zn 213.857†	547.1	12.4	0.3566	µg/L	0.3566	ppb	15:08:26
2	Sc 361.383	1626235.8	1626235.8	102.12	%			15:08:32
2	Sc RADIAL	97695.8	97695.8	98.8	%			15:07:03
2	Y 371.029	1136486.3	1136486.3	102.14	%			15:08:32
2	Ag 328.068†	334.1	105.3	0.9689	µg/L	0.9689	ppb	15:08:37
2	Al 396.153Radial†	-165.2	5.8	3.1537	µg/L	3.1537	ppb	15:07:03
2	As 188.979†	4.3	2.6	5.1680	µg/L	5.1680	ppb	15:08:58
2	B 249.677†	1253.3	-111.0	-6.3303	µg/L	-6.3303	ppb	15:08:37
2	Ba 233.527†	-5.7	22.2	0.6138	µg/L	0.6138	ppb	15:08:58
2	Be 313.107†	-1677.7	581.2	0.4473	µg/L	0.4473	ppb	15:08:37
2	Ca 317.933Radial†	369.6	11.3	4.3396	µg/L	4.3396	ppb	15:07:24
2	Cd 226.502†	-117.4	26.9	0.8532	µg/L	0.8532	ppb	15:08:58
2	Co 228.616†	23.5	9.1	0.5096	µg/L	0.5096	ppb	15:08:58
2	Cr 267.716†	111.0	29.7	0.8340	µg/L	0.8340	ppb	15:08:58
2	Cu 324.752†	2699.8	-18.1	-0.1310	µg/L	-0.1310	ppb	15:08:37
2	Fe 238.204 Radial†	29.4	4.3	40.409	µg/L	40.409	ppb	15:07:24
2	K 766.490 Radial†	311.3	88.4	52.730	µg/L	52.730	ppb	15:07:03
2	Mg 279.077 IEC†	11.6	3.4	40.591	µg/L	40.591	ppb	15:07:24
2	Mn 257.610†	-390.9	180.4	0.7119	µg/L	0.7119	ppb	15:08:58
2	Mo 202.031†	17.1	12.2	1.5299	µg/L	1.5299	ppb	15:08:58
2	Na 589.592 Radial†	228.3	-15.4	-6.6254	µg/L	-6.6254	ppb	15:07:03
2	Ni 231.604†	313.7	17.5	1.3286	µg/L	1.3286	ppb	15:08:58
2	P 214.914†	23.7	-0.1	-0.1435	µg/L	-0.1435	ppb	15:08:58
2	Pb 220.353†	50.8	8.8	2.9995	µg/L	2.9995	ppb	15:08:58

2	S 181.975 Axial†	17.6	3.4	14.179 µg/L	14.179 ppb	15:08:58
2	Sb 206.836†	26.7	5.4	6.3669 µg/L	6.3669 ppb	15:08:58
2	Se 196.026†	10.7	-4.7	-6.1830 µg/L	-6.1830 ppb	15:08:58
2	SiO2†	1405.9	4.3	0.9970 µg/L	0.9970 ppb	15:08:37
2	Si 251.611†	414.2	49.9	4.3722 µg/L	4.3722 ppb	15:08:58
2	Sn 189.927†	10.9	2.2	1.1368 µg/L	1.1368 ppb	15:08:58
2	Sr 421.552†	107.5	-37.3	-0.1893 µg/L	-0.1893 ppb	15:07:03
2	Ti 334.940†	270.3	250.9	0.7129 µg/L	0.7129 ppb	15:08:37
2	Tl 190.801†	-22.8	3.9	4.9568 µg/L	4.9568 ppb	15:08:58
2	U 409.014†	262.3	142.1	13.983 µg/L	13.983 ppb	15:08:37
2	V 292.402†	-138.2	31.3	0.4562 µg/L	0.4562 ppb	15:08:37
2	Zn 213.857†	570.0	30.0	0.8594 µg/L	0.8594 ppb	15:08:58
3	Sc 361.383	1620061.3	1620061.3	101.74 %		15:09:04
3	Sc RADIAL	99988.4	99988.4	101 %		15:07:29
3	Y 371.029	1133183.6	1133183.6	101.85 %		15:09:04
3	Ag 328.068†	299.1	72.2	0.6727 µg/L	0.6727 ppb	15:09:10
3	Al 396.153Radial†	-165.1	9.6	5.2613 µg/L	5.2613 ppb	15:07:29
3	As 188.979†	-2.5	-4.1	-8.2378 µg/L	-8.2378 ppb	15:09:30
3	B 249.677†	1262.6	-97.2	-5.5326 µg/L	-5.5326 ppb	15:09:10
3	Ba 233.527†	20.3	47.6	1.3211 µg/L	1.3211 ppb	15:09:30
3	Be 313.107†	-756.2	1480.8	1.1398 µg/L	1.1398 ppb	15:09:10
3	Ca 317.933Radial†	373.9	7.0	2.6908 µg/L	2.6908 ppb	15:07:49
3	Cd 226.502†	-103.6	40.1	1.2737 µg/L	1.2737 ppb	15:09:30
3	Co 228.616†	29.9	15.5	0.8639 µg/L	0.8639 ppb	15:09:30
3	Cr 267.716†	124.9	43.8	1.2311 µg/L	1.2311 ppb	15:09:30
3	Cu 324.752†	2747.6	39.0	0.3019 µg/L	0.3019 ppb	15:09:10
3	Fe 238.204 Radial†	27.3	1.6	14.521 µg/L	14.521 ppb	15:07:49
3	K 766.490 Radial†	247.6	18.1	10.807 µg/L	10.807 ppb	15:07:29
3	Mg 279.077 IEC†	11.0	2.6	31.137 µg/L	31.137 ppb	15:07:49
3	Mn 257.610†	-242.0	325.3	1.2830 µg/L	1.2830 ppb	15:09:30
3	Mo 202.031†	22.4	17.5	2.1861 µg/L	2.1861 ppb	15:09:30
3	Na 589.592 Radial†	304.7	54.9	23.580 µg/L	23.580 ppb	15:07:29
3	Ni 231.604†	314.4	19.3	1.4666 µg/L	1.4666 ppb	15:09:30
3	P 214.914†	30.7	6.9	17.484 µg/L	17.484 ppb	15:09:30
3	Pb 220.353†	36.2	-5.4	-1.8548 µg/L	-1.8548 ppb	15:09:30
3	S 181.975 Axial†	18.9	4.8	19.991 µg/L	19.991 ppb	15:09:30
3	Sb 206.836†	24.2	3.1	3.6606 µg/L	3.6606 ppb	15:09:30
3	Se 196.026†	22.5	7.0	9.4974 µg/L	9.4974 ppb	15:09:30
3	SiO2†	1407.3	10.9	2.5444 µg/L	2.5444 ppb	15:09:10
3	Si 251.611†	463.2	99.6	8.7286 µg/L	8.7286 ppb	15:09:30
3	Sn 189.927†	8.4	-0.2	-0.0943 µg/L	-0.0943 ppb	15:09:30
3	Sr 421.552†	132.9	-14.7	-0.0745 µg/L	-0.0745 ppb	15:07:29
3	Ti 334.940†	480.4	458.5	1.3061 µg/L	1.3061 ppb	15:09:10
3	Tl 190.801†	-26.0	0.7	0.8896 µg/L	0.8896 ppb	15:09:30
3	U 409.014†	300.2	180.3	17.753 µg/L	17.753 ppb	15:09:10
3	V 292.402†	-34.5	132.7	1.8479 µg/L	1.8479 ppb	15:09:10
3	Zn 213.857†	582.9	44.8	1.2891 µg/L	1.2891 ppb	15:09:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1619328.9	101.69	%	0.458				0.45%
Sc RADIAL	99788.5	101	%	2.0				2.00%
Y 371.029	1132724.2	101.80	%	0.361				0.35%
Ag 328.068†	55.4	0.5156	µg/L	0.54897	0.5156	ppb	0.54897	106.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.3	9.4925	µg/L	9.21431	9.4925	ppb	9.21431	97.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.2614	µg/L	7.05651	-0.2614	ppb	7.05651	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-109.0	-6.2106	µg/L	0.62681	-6.2106	ppb	0.62681	10.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.1	0.6959	µg/L	0.58857	0.6959	ppb	0.58857	84.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	766.6	0.5900	µg/L	0.49412	0.5900	ppb	0.49412	83.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.8	2.2272	µg/L	2.37829	2.2272	ppb	2.37829	106.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.7	0.8795	µg/L	0.38179	0.8795	ppb	0.38179	43.41%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                10.6      0.5901 µg/L       0.24374      0.5901 ppb        0.24374  41.31%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                26.1      0.7331 µg/L       0.55528      0.7331 ppb        0.55528  75.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -4.5     -0.0288 µg/L       0.29326     -0.0288 ppb        0.29326 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          3.2      29.358 µg/L       13.3526      29.358 ppb        13.3526  45.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          41.1      24.515 µg/L       24.4389      24.515 ppb        24.4389  99.69%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.1      37.692 µg/L        5.6891      37.692 ppb         5.6891  15.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               191.1      0.7535 µg/L       0.50990      0.7535 ppb        0.50990  67.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.9      1.7376 µg/L       0.38878      1.7376 ppb        0.38878  22.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         20.3      8.7087 µg/L      15.10818      8.7087 ppb       15.10818 173.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                11.9      0.9036 µg/L       0.85840      0.9036 ppb        0.85840  94.99%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.9      4.8091 µg/L      11.06394      4.8091 ppb       11.06394 230.06%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.7      1.5909 µg/L       3.00053      1.5909 ppb        3.00053 188.61%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.4      9.8497 µg/L      12.86478      9.8497 ppb       12.86478 130.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.8      3.2858 µg/L       3.28464      3.2858 ppb        3.28464  99.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.7      1.0444 µg/L       7.91172      1.0444 ppb        7.91172 757.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       7.5      1.7579 µg/L       0.77397      1.7579 ppb        0.77397  44.03%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                57.1      5.0079 µg/L       3.44712      5.0079 ppb        3.44712  68.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.5     -0.2399 µg/L       1.45499     -0.2399 ppb        1.45499 606.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -11.1     -0.0565 µg/L       0.14270     -0.0565 ppb        0.14270 252.71%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               283.9      0.8074 µg/L       0.45888      0.8074 ppb        0.45888  56.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.6      0.7305 µg/L       4.30806      0.7305 ppb        4.30806 589.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                142.3      14.007 µg/L        3.7342      14.007 ppb         3.7342  26.66%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 78.0      1.0942 µg/L       0.70304      1.0942 ppb        0.70304  64.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                29.1      0.8351 µg/L       0.46672      0.8351 ppb        0.46672  55.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/27/2010 15:37:31 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022710A.SIF
Batch ID:
Results Data Set: 022710B
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/27/2010 15:37:33**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	102598.8	102598.8	104	%			15:38:07
1	Al 396.153Radial†	9428.8	9259.8	5083.4	µg/L	5083.4	ppb	15:38:07
1	Ca 317.933Radial†	14432.8	13546.7	5185.8	µg/L	5185.8	ppb	15:38:07
1	Fe 238.204 Radial†	594.9	547.8	5111.6	µg/L	5111.6	ppb	15:38:27
1	K 766.490 Radial†	8740.8	8197.1	4888.4	µg/L	4888.4	ppb	15:38:07
1	Mg 279.077 IEC†	457.0	432.1	5204.3	µg/L	5204.3	ppb	15:38:27
1	Na 589.592 Radial†	24109.4	22988.6	9876.7	µg/L	9876.7	ppb	15:38:07
1	Sr 421.552†	98586.6	94864.9	481.52	µg/L	481.52	ppb	15:38:07
1	Sc 361.383	1653693.0	1653693.0	103.85	%			15:39:31
1	Y 371.029	1153232.1	1153232.1	103.65	%			15:39:31
1	Ag 328.068†	54328.9	52093.7	479.83	µg/L	479.83	ppb	15:39:36
1	As 188.979†	270.2	258.6	511.36	µg/L	511.36	ppb	15:39:57
1	B 249.677†	9956.9	8249.6	467.05	µg/L	467.05	ppb	15:39:36
1	Ba 233.527†	18290.1	17640.0	488.99	µg/L	488.99	ppb	15:39:36
1	Be 313.107†	660726.9	638464.3	491.46	µg/L	491.46	ppb	15:39:31
1	Cd 226.502†	15892.3	15445.3	490.92	µg/L	490.92	ppb	15:39:36
1	Co 228.616†	9213.0	8857.6	493.21	µg/L	493.21	ppb	15:39:36
1	Cr 267.716†	18390.0	17629.4	495.58	µg/L	495.58	ppb	15:39:36
1	Cu 324.752†	68071.8	62887.4	483.59	µg/L	483.59	ppb	15:39:36
1	Mn 257.610†	128312.5	124120.4	489.98	µg/L	489.98	ppb	15:39:36
1	Mo 202.031†	4246.9	4085.0	510.95	µg/L	510.95	ppb	15:39:57
1	Ni 231.604†	7373.8	6810.8	516.82	µg/L	516.82	ppb	15:39:57
1	P 214.914†	1069.8	1006.9	2505.2	µg/L	2505.2	ppb	15:39:57
1	Pb 220.353†	1583.0	1483.4	507.50	µg/L	507.50	ppb	15:39:57
1	S 181.975 Axial†	264.2	240.6	1001.8	µg/L	1001.8	ppb	15:39:57
1	Sb 206.836†	461.6	423.7	503.89	µg/L	503.89	ppb	15:39:57
1	Se 196.026†	402.8	372.8	516.95	µg/L	516.95	ppb	15:39:57
1	SiO2†	24375.7	22099.9	5179.0	µg/L	5179.0	ppb	15:39:36
1	Si 251.611†	29075.2	27642.0	2423.2	µg/L	2423.2	ppb	15:39:36
1	Sn 189.927†	1061.0	1013.3	511.82	µg/L	511.82	ppb	15:39:57
1	Ti 334.940†	177075.1	170498.9	486.27	µg/L	486.27	ppb	15:39:31
1	Tl 190.801†	380.4	392.5	498.76	µg/L	498.76	ppb	15:39:57
1	U 409.014†	5103.6	4799.8	471.51	µg/L	471.51	ppb	15:39:36
1	V 292.402†	37122.3	35913.1	495.51	µg/L	495.51	ppb	15:39:36
1	Zn 213.857†	18163.4	16962.1	487.79	µg/L	487.79	ppb	15:39:36
2	Sc RADIAL	103066.6	103066.6	104	%			15:38:33
2	Al 396.153Radial†	9444.9	9234.0	5069.5	µg/L	5069.5	ppb	15:38:33
2	Ca 317.933Radial†	14452.5	13502.4	5168.8	µg/L	5168.8	ppb	15:38:33
2	Fe 238.204 Radial†	587.0	537.7	5017.6	µg/L	5017.6	ppb	15:38:53
2	K 766.490 Radial†	8870.4	8283.2	4939.8	µg/L	4939.8	ppb	15:38:33
2	Mg 279.077 IEC†	453.6	426.8	5140.5	µg/L	5140.5	ppb	15:38:53
2	Na 589.592 Radial†	24163.1	22934.6	9853.6	µg/L	9853.6	ppb	15:38:33
2	Sr 421.552†	98592.2	94439.1	479.35	µg/L	479.35	ppb	15:38:33
2	Sc 361.383	1654194.0	1654194.0	103.88	%			15:40:03
2	Y 371.029	1154200.2	1154200.2	103.73	%			15:40:03
2	Ag 328.068†	55132.3	52851.2	486.79	µg/L	486.79	ppb	15:40:09
2	As 188.979†	263.4	251.9	498.14	µg/L	498.14	ppb	15:40:30

2	B 249.677†	10161.8	8444.0	478.15 µg/L	478.15 ppb		15:40:09
2	Ba 233.527†	18620.5	17952.7	497.66 µg/L	497.66 ppb		15:40:09
2	Be 313.107†	661514.1	639029.5	491.89 µg/L	491.89 ppb		15:40:03
2	Cd 226.502†	16212.4	15748.8	500.57 µg/L	500.57 ppb		15:40:09
2	Co 228.616†	9354.2	8990.9	500.63 µg/L	500.63 ppb		15:40:09
2	Cr 267.716†	18667.1	17890.8	502.92 µg/L	502.92 ppb		15:40:09
2	Cu 324.752†	69258.4	64009.8	492.19 µg/L	492.19 ppb		15:40:09
2	Mn 257.610†	130430.4	126121.8	497.88 µg/L	497.88 ppb		15:40:09
2	Mo 202.031†	4151.4	3991.9	499.30 µg/L	499.30 ppb		15:40:30
2	Ni 231.604†	7225.2	6665.6	505.78 µg/L	505.78 ppb		15:40:30
2	P 214.914†	1047.4	985.0	2448.7 µg/L	2448.7 ppb		15:40:30
2	Pb 220.353†	1561.2	1461.9	500.09 µg/L	500.09 ppb		15:40:30
2	S 181.975 Axial†	265.8	242.1	1008.2 µg/L	1008.2 ppb		15:40:30
2	Sb 206.836†	445.4	408.0	485.08 µg/L	485.08 ppb		15:40:30
2	Se 196.026†	394.7	364.9	505.96 µg/L	505.96 ppb		15:40:30
2	SiO2†	24834.8	22534.8	5280.9 µg/L	5280.9 ppb		15:40:09
2	Si 251.611†	29682.2	28217.8	2473.7 µg/L	2473.7 ppb		15:40:09
2	Sn 189.927†	1041.5	994.1	502.16 µg/L	502.16 ppb		15:40:30
2	Ti 334.940†	177466.1	170823.7	487.20 µg/L	487.20 ppb		15:40:03
2	Tl 190.801†	380.3	392.4	498.57 µg/L	498.57 ppb		15:40:30
2	U 409.014†	5249.1	4938.3	485.17 µg/L	485.17 ppb		15:40:09
2	V 292.402†	37642.4	36403.0	502.13 µg/L	502.13 ppb		15:40:09
2	Zn 213.857†	18460.3	17242.6	495.96 µg/L	495.96 ppb		15:40:09
3	Sc RADIAL	102368.5	102368.5	104 %			15:38:59
3	Al 396.153Radial†	9330.9	9185.7	5044.6 µg/L	5044.6 ppb		15:38:59
3	Ca 317.933Radial†	14339.4	13487.7	5163.2 µg/L	5163.2 ppb		15:38:59
3	Fe 238.204 Radial†	587.4	541.9	5055.6 µg/L	5055.6 ppb		15:39:19
3	K 766.490 Radial†	8715.8	8192.0	4885.4 µg/L	4885.4 ppb		15:38:59
3	Mg 279.077 IEC†	458.3	434.3	5229.4 µg/L	5229.4 ppb		15:39:19
3	Na 589.592 Radial†	24007.2	22942.1	9856.8 µg/L	9856.8 ppb		15:38:59
3	Sr 421.552†	97848.6	94365.9	478.98 µg/L	478.98 ppb		15:38:59
3	Sc 361.383	1647884.2	1647884.2	103.48 %			15:40:36
3	Y 371.029	1148979.4	1148979.4	103.27 %			15:40:36
3	Ag 328.068†	51276.2	49328.2	454.21 µg/L	454.21 ppb		15:40:42
3	As 188.979†	223.1	214.0	423.00 µg/L	423.00 ppb		15:41:02
3	B 249.677†	9423.4	7767.8	439.59 µg/L	439.59 ppb		15:40:42
3	Ba 233.527†	16701.2	16166.7	448.13 µg/L	448.13 ppb		15:40:42
3	Be 313.107†	606994.4	588783.5	453.22 µg/L	453.22 ppb		15:40:36
3	Cd 226.502†	14396.7	14053.9	446.61 µg/L	446.61 ppb		15:40:42
3	Co 228.616†	8290.7	7997.7	445.27 µg/L	445.27 ppb		15:40:42
3	Cr 267.716†	16040.5	15421.5	433.52 µg/L	433.52 ppb		15:40:42
3	Cu 324.752†	61902.5	57156.8	439.60 µg/L	439.60 ppb		15:40:42
3	Mn 257.610†	115542.4	112215.7	442.97 µg/L	442.97 ppb		15:40:42
3	Mo 202.031†	3461.8	3340.7	417.89 µg/L	417.89 ppb		15:41:02
3	Ni 231.604†	6070.4	5576.3	423.10 µg/L	423.10 ppb		15:41:02
3	P 214.914†	893.8	840.4	2086.6 µg/L	2086.6 ppb		15:41:02
3	Pb 220.353†	1363.6	1276.8	436.74 µg/L	436.74 ppb		15:41:02
3	S 181.975 Axial†	233.8	212.1	883.24 µg/L	883.24 ppb		15:41:02
3	Sb 206.836†	388.2	354.4	421.09 µg/L	421.09 ppb		15:41:02
3	Se 196.026†	347.1	320.3	445.75 µg/L	445.75 ppb		15:41:02
3	SiO2†	22781.8	20642.5	4837.4 µg/L	4837.4 ppb		15:40:42
3	Si 251.611†	27088.7	25821.0	2263.6 µg/L	2263.6 ppb		15:40:42
3	Sn 189.927†	850.1	813.1	410.78 µg/L	410.78 ppb		15:41:02
3	Ti 334.940†	161997.7	156530.2	446.40 µg/L	446.40 ppb		15:40:36
3	Tl 190.801†	341.2	356.0	452.31 µg/L	452.31 ppb		15:41:02
3	U 409.014†	4566.0	4297.6	422.08 µg/L	422.08 ppb		15:40:42
3	V 292.402†	33128.6	32179.9	443.69 µg/L	443.69 ppb		15:40:42
3	Zn 213.857†	16458.9	15376.7	442.35 µg/L	442.35 ppb		15:40:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1651923.7	103.74	%	0.220				0.21%
Sc RADIAL	102678.0	104	%	0.4				0.35%
Y 371.029	1152137.2	103.55	%	0.250				0.24%
Ag 328.068†	51424.3	473.61	µg/L	17.158	473.61	ppb	17.158	3.62%
QC value within limits for Ag 328.068 Recovery = 94.72%								
Al 396.153Radial†	9226.5	5065.8	µg/L	19.67	5065.8	ppb	19.67	0.39%
QC value within limits for Al 396.153Radial Recovery = 101.32%								
As 188.979†	241.5	477.50	µg/L	47.656	477.50	ppb	47.656	9.98%

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   QC value within limits for As 188.979  Recovery = 95.50%
B 249.677†              8153.8      461.60 µg/L        19.851      461.60 ppb         19.851   4.30%
   QC value within limits for B 249.677  Recovery = 92.32%
Ba 233.527†            17253.1      478.26 µg/L        26.449      478.26 ppb         26.449   5.53%
   QC value within limits for Ba 233.527  Recovery = 95.65%
Be 313.107†           622092.5      478.85 µg/L        22.205      478.85 ppb         22.205   4.64%
   QC value within limits for Be 313.107  Recovery = 95.77%
Ca 317.933Radial†      13512.3      5172.6 µg/L         11.75      5172.6 ppb          11.75   0.23%
   QC value within limits for Ca 317.933Radial  Recovery = 103.45%
Cd 226.502†            15082.7      479.37 µg/L        28.778      479.37 ppb         28.778   6.00%
   QC value within limits for Cd 226.502  Recovery = 95.87%
Co 228.616†             8615.4      479.71 µg/L        30.048      479.71 ppb         30.048   6.26%
   QC value within limits for Co 228.616  Recovery = 95.94%
Cr 267.716†            16980.6      477.34 µg/L        38.130      477.34 ppb         38.130   7.99%
   QC value within limits for Cr 267.716  Recovery = 95.47%
Cu 324.752†            61351.3      471.79 µg/L        28.208      471.79 ppb         28.208   5.98%
   QC value within limits for Cu 324.752  Recovery = 94.36%
Fe 238.204 Radial†       542.5      5061.6 µg/L         47.27      5061.6 ppb          47.27   0.93%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.23%
K 766.490 Radial†       8224.1      4904.5 µg/L         30.58      4904.5 ppb          30.58   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 98.09%
Mg 279.077 IEC†          431.1      5191.4 µg/L         45.82      5191.4 ppb          45.82   0.88%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.83%
Mn 257.610†           120819.3      476.94 µg/L        29.683      476.94 ppb         29.683   6.22%
   QC value within limits for Mn 257.610  Recovery = 95.39%
Mo 202.031†             3805.9      476.05 µg/L        50.702      476.05 ppb         50.702  10.65%
   QC value within limits for Mo 202.031  Recovery = 95.21%
Na 589.592 Radial†     22955.1      9862.4 µg/L         12.56      9862.4 ppb          12.56   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 98.62%
Ni 231.604†             6350.9      481.90 µg/L        51.219      481.90 ppb         51.219  10.63%
   QC value within limits for Ni 231.604  Recovery = 96.38%
P 214.914†               944.1      2346.8 µg/L        227.16      2346.8 ppb         227.16   9.68%
   QC value within limits for P 214.914  Recovery = 93.87%
Pb 220.353†             1407.4      481.44 µg/L        38.894      481.44 ppb         38.894   8.08%
   QC value within limits for Pb 220.353  Recovery = 96.29%
S 181.975 Axial†         231.6      964.39 µg/L        70.346      964.39 ppb         70.346   7.29%
   QC value within limits for S 181.975 Axial  Recovery = 96.44%
Sb 206.836†              395.4      470.02 µg/L        43.404      470.02 ppb         43.404   9.23%
   QC value within limits for Sb 206.836  Recovery = 94.00%
Se 196.026†              352.7      489.56 µg/L        38.330      489.56 ppb         38.330   7.83%
   QC value within limits for Se 196.026  Recovery = 97.91%
SiO2†                  21759.1      5099.1 µg/L        232.27      5099.1 ppb         232.27   4.56%
   QC value within limits for SiO2  Recovery = 95.35%
Si 251.611†            27226.9      2386.8 µg/L        109.68      2386.8 ppb         109.68   4.60%
   QC value within limits for Si 251.611  Recovery = 95.47%
Sn 189.927†              940.2      474.92 µg/L        55.755      474.92 ppb         55.755  11.74%
   QC value within limits for Sn 189.927  Recovery = 94.98%
Sr 421.552†            94556.7      479.95 µg/L         1.368      479.95 ppb          1.368   0.28%
   QC value within limits for Sr 421.552  Recovery = 95.99%
Ti 334.940†           165951.0      473.29 µg/L        23.292      473.29 ppb         23.292   4.92%
   QC value within limits for Ti 334.940  Recovery = 94.66%
Tl 190.801†              380.3      483.22 µg/L        26.763      483.22 ppb         26.763   5.54%
   QC value within limits for Tl 190.801  Recovery = 96.64%
U 409.014†              4678.5      459.59 µg/L        33.190      459.59 ppb         33.190   7.22%
   QC value within limits for U 409.014  Recovery = 91.92%
V 292.402†             34832.0      480.44 µg/L        32.003      480.44 ppb         32.003   6.66%
   QC value within limits for V 292.402  Recovery = 96.09%
Zn 213.857†            16527.1      475.37 µg/L        28.886      475.37 ppb         28.886   6.08%
   QC value within limits for Zn 213.857  Recovery = 95.07%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/27/2010 15:41:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	100381.1	100381.1	102	%			15:41:44
1	Al 396.153Radial†	-183.9	-8.2	-4.4954	µg/L	-4.4954	ppb	15:41:44
1	Ca 317.933Radial†	364.1	-4.1	-1.5507	µg/L	-1.5507	ppb	15:42:05
1	Fe 238.204 Radial†	30.6	4.7	43.335	µg/L	43.335	ppb	15:42:05
1	K 766.490 Radial†	200.1	-29.5	-17.615	µg/L	-17.615	ppb	15:41:44
1	Mg 279.077 IEC†	10.3	1.8	22.209	µg/L	22.209	ppb	15:42:05
1	Na 589.592 Radial†	256.0	5.7	2.4633	µg/L	2.4633	ppb	15:41:44
1	Sr 421.552†	131.1	-16.9	-0.0860	µg/L	-0.0860	ppb	15:41:44
1	Sc 361.383	1622733.7	1622733.7	101.90	%			15:43:07
1	Y 371.029	1135096.6	1135096.6	102.02	%			15:43:07
1	Ag 328.068†	255.1	28.5	0.2639	µg/L	0.2639	ppb	15:43:12
1	As 188.979†	0.4	-1.2	-2.4382	µg/L	-2.4382	ppb	15:43:33
1	B 249.677†	1229.6	-131.7	-7.5072	µg/L	-7.5072	ppb	15:43:12
1	Ba 233.527†	-27.4	0.8	0.0218	µg/L	0.0218	ppb	15:43:33
1	Be 313.107†	-2070.8	191.9	0.1477	µg/L	0.1477	ppb	15:43:12
1	Cd 226.502†	-134.3	10.1	0.3173	µg/L	0.3173	ppb	15:43:33
1	Co 228.616†	16.2	2.0	0.1098	µg/L	0.1098	ppb	15:43:33
1	Cr 267.716†	90.1	9.4	0.2635	µg/L	0.2635	ppb	15:43:33
1	Cu 324.752†	2586.7	-123.3	-0.9382	µg/L	-0.9382	ppb	15:43:12
1	Mn 257.610†	-504.3	68.2	0.2705	µg/L	0.2705	ppb	15:43:33
1	Mo 202.031†	6.6	2.0	0.2525	µg/L	0.2525	ppb	15:43:33
1	Ni 231.604†	303.0	7.6	0.5812	µg/L	0.5812	ppb	15:43:33
1	P 214.914†	20.9	-2.7	-6.8217	µg/L	-6.8217	ppb	15:43:33
1	Pb 220.353†	40.2	-1.5	-0.5076	µg/L	-0.5076	ppb	15:43:33
1	S 181.975 Axial†	12.7	-1.4	-5.6283	µg/L	-5.6283	ppb	15:43:33
1	Sb 206.836†	23.7	2.5	2.9538	µg/L	2.9538	ppb	15:43:33
1	Se 196.026†	14.4	-0.9	-1.1542	µg/L	-1.1542	ppb	15:43:33
1	SiO2†	1399.8	1.2	0.2759	µg/L	0.2759	ppb	15:43:12
1	Si 251.611†	347.4	-14.8	-1.2995	µg/L	-1.2995	ppb	15:43:33
1	Sn 189.927†	9.2	0.5	0.2750	µg/L	0.2750	ppb	15:43:33
1	Ti 334.940†	100.2	84.5	0.2395	µg/L	0.2395	ppb	15:43:12
1	Tl 190.801†	-25.9	0.8	1.0324	µg/L	1.0324	ppb	15:43:33
1	U 409.014†	135.1	17.8	1.7484	µg/L	1.7484	ppb	15:43:12
1	V 292.402†	-170.5	-0.7	-0.0041	µg/L	-0.0041	ppb	15:43:12
1	Zn 213.857†	538.4	0.2	0.0004	µg/L	0.0004	ppb	15:43:33
2	Sc RADIAL	100826.7	100826.7	102	%			15:42:10
2	Al 396.153Radial†	-203.3	-26.4	-14.546	µg/L	-14.546	ppb	15:42:10
2	Ca 317.933Radial†	367.3	-2.5	-0.9663	µg/L	-0.9663	ppb	15:42:31
2	Fe 238.204 Radial†	29.4	3.4	31.843	µg/L	31.843	ppb	15:42:31
2	K 766.490 Radial†	346.5	113.1	67.439	µg/L	67.439	ppb	15:42:10
2	Mg 279.077 IEC†	8.3	-0.2	-2.8031	µg/L	-2.8031	ppb	15:42:31
2	Na 589.592 Radial†	236.0	-15.1	-6.4812	µg/L	-6.4812	ppb	15:42:10
2	Sr 421.552†	135.6	-13.1	-0.0667	µg/L	-0.0667	ppb	15:42:10
2	Sc 361.383	1631642.0	1631642.0	102.46	%			15:43:38
2	Y 371.029	1142227.4	1142227.4	102.66	%			15:43:38
2	Ag 328.068†	276.2	47.8	0.4392	µg/L	0.4392	ppb	15:43:44
2	As 188.979†	2.4	0.7	1.3896	µg/L	1.3896	ppb	15:44:04
2	B 249.677†	1217.7	-149.9	-8.5357	µg/L	-8.5357	ppb	15:43:44
2	Ba 233.527†	-8.1	19.8	0.5472	µg/L	0.5472	ppb	15:44:04
2	Be 313.107†	-1856.7	412.0	0.3172	µg/L	0.3172	ppb	15:43:44
2	Cd 226.502†	-122.3	22.5	0.7125	µg/L	0.7125	ppb	15:44:04
2	Co 228.616†	27.8	13.2	0.7379	µg/L	0.7379	ppb	15:44:04
2	Cr 267.716†	102.1	20.6	0.5792	µg/L	0.5792	ppb	15:44:04
2	Cu 324.752†	2620.2	-104.5	-0.7961	µg/L	-0.7961	ppb	15:43:44
2	Mn 257.610†	-458.6	115.5	0.4581	µg/L	0.4581	ppb	15:44:04
2	Mo 202.031†	12.9	8.1	1.0149	µg/L	1.0149	ppb	15:44:04
2	Ni 231.604†	308.1	11.0	0.8336	µg/L	0.8336	ppb	15:44:04
2	P 214.914†	25.8	2.0	5.0269	µg/L	5.0269	ppb	15:44:04
2	Pb 220.353†	46.0	4.0	1.3606	µg/L	1.3606	ppb	15:44:04

2	S 181.975 Axial†	15.4	1.2	5.0321 µg/L	5.0321 ppb	15:44:04
2	Sb 206.836†	27.8	6.3	7.5081 µg/L	7.5081 ppb	15:44:04
2	Se 196.026†	21.5	5.9	8.0369 µg/L	8.0369 ppb	15:44:04
2	SiO2†	1378.0	-27.6	-6.4596 µg/L	-6.4596 ppb	15:43:44
2	Si 251.611†	379.6	14.8	1.2950 µg/L	1.2950 ppb	15:44:04
2	Sn 189.927†	6.5	-2.1	-1.0400 µg/L	-1.0400 ppb	15:44:04
2	Ti 334.940†	107.1	90.7	0.2592 µg/L	0.2592 ppb	15:43:44
2	Tl 190.801†	-27.8	-0.9	-1.1200 µg/L	-1.1200 ppb	15:44:04
2	U 409.014†	173.7	54.8	5.3912 µg/L	5.3912 ppb	15:43:44
2	V 292.402†	-172.8	-2.1	-0.0123 µg/L	-0.0123 ppb	15:43:44
2	Zn 213.857†	551.6	10.2	0.2918 µg/L	0.2918 ppb	15:44:04
3	Sc RADIAL	100178.1	100178.1	101 %		15:42:36
3	Al 396.153Radial†	-169.7	5.4	2.9443 µg/L	2.9443 ppb	15:42:36
3	Ca 317.933Radial†	369.6	2.1	0.7888 µg/L	0.7888 ppb	15:42:57
3	Fe 238.204 Radial†	30.9	5.1	47.039 µg/L	47.039 ppb	15:42:57
3	K 766.490 Radial†	257.3	27.2	16.248 µg/L	16.248 ppb	15:42:36
3	Mg 279.077 IEC†	3.6	-4.7	-56.963 µg/L	-56.963 ppb	15:42:57
3	Na 589.592 Radial†	245.5	-4.1	-1.7819 µg/L	-1.7819 ppb	15:42:36
3	Sr 421.552†	125.7	-22.0	-0.1116 µg/L	-0.1116 ppb	15:42:36
3	Sc 361.383	1629394.4	1629394.4	102.32 %		15:44:10
3	Y 371.029	1139440.5	1139440.5	102.41 %		15:44:10
3	Ag 328.068†	267.4	39.5	0.3688 µg/L	0.3688 ppb	15:44:15
3	As 188.979†	2.6	0.9	1.6972 µg/L	1.6972 ppb	15:44:36
3	B 249.677†	1213.8	-152.1	-8.6654 µg/L	-8.6654 ppb	15:44:15
3	Ba 233.527†	0.0	27.7	0.7688 µg/L	0.7688 ppb	15:44:36
3	Be 313.107†	-1245.5	1006.8	0.7749 µg/L	0.7749 ppb	15:44:15
3	Cd 226.502†	-125.0	19.7	0.6231 µg/L	0.6231 ppb	15:44:36
3	Co 228.616†	27.6	13.1	0.7276 µg/L	0.7276 ppb	15:44:36
3	Cr 267.716†	128.4	46.4	1.3051 µg/L	1.3051 ppb	15:44:36
3	Cu 324.752†	2715.3	-8.0	-0.0526 µg/L	-0.0526 ppb	15:44:15
3	Mn 257.610†	-387.8	184.1	0.7334 µg/L	0.7334 ppb	15:44:36
3	Mo 202.031†	17.9	13.0	1.6297 µg/L	1.6297 ppb	15:44:36
3	Ni 231.604†	312.7	15.9	1.2048 µg/L	1.2048 ppb	15:44:36
3	P 214.914†	26.5	2.7	6.8357 µg/L	6.8357 ppb	15:44:36
3	Pb 220.353†	38.2	-3.6	-1.2252 µg/L	-1.2252 ppb	15:44:36
3	S 181.975 Axial†	19.2	5.0	20.791 µg/L	20.791 ppb	15:44:36
3	Sb 206.836†	24.9	3.6	4.2404 µg/L	4.2404 ppb	15:44:36
3	Se 196.026†	15.7	0.2	0.5169 µg/L	0.5169 ppb	15:44:36
3	SiO2†	1398.4	-5.8	-1.3478 µg/L	-1.3478 ppb	15:44:15
3	Si 251.611†	395.2	30.5	2.6737 µg/L	2.6737 ppb	15:44:36
3	Sn 189.927†	10.0	1.3	0.6651 µg/L	0.6651 ppb	15:44:36
3	Ti 334.940†	313.9	293.0	0.8407 µg/L	0.8407 ppb	15:44:15
3	Tl 190.801†	-25.1	1.7	2.1631 µg/L	2.1631 ppb	15:44:36
3	U 409.014†	142.3	24.4	2.3943 µg/L	2.3943 ppb	15:44:15
3	V 292.402†	-124.9	44.6	0.6279 µg/L	0.6279 ppb	15:44:15
3	Zn 213.857†	552.3	11.6	0.3321 µg/L	0.3321 ppb	15:44:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1627923.4	102.23	%	0.291				0.28%
Sc RADIAL	100462.0	102	%	0.3				0.33%
Y 371.029	1138921.5	102.36	%	0.323				0.32%
Ag 328.068†	38.6	0.3573	µg/L	0.08820	0.3573	ppb	0.08820	24.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.7	-5.3657	µg/L	8.77756	-5.3657	ppb	8.77756	163.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.2162	µg/L	2.30395	0.2162	ppb	2.30395	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-144.5	-8.2361	µg/L	0.63454	-8.2361	ppb	0.63454	7.70%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.1	0.4459	µg/L	0.38370	0.4459	ppb	0.38370	86.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	536.9	0.4133	µg/L	0.32448	0.4133	ppb	0.32448	78.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.5	-0.5760	µg/L	1.21761	-0.5760	ppb	1.21761	211.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.4	0.5510	µg/L	0.20727	0.5510	ppb	0.20727	37.62%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.4	0.5251	µg/L	0.35970	0.5251	ppb	0.35970	68.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              25.5      0.7160 µg/L       0.53409      0.7160 ppb        0.53409  74.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -78.6     -0.5956 µg/L       0.47561     -0.5956 ppb        0.47561  79.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        4.4      40.739 µg/L        7.9232      40.739 ppb         7.9232  19.45%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        36.9      22.024 µg/L       42.8203      22.024 ppb        42.8203 194.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.0     -12.519 µg/L       40.4702     -12.519 ppb        40.4702 323.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             122.6      0.4874 µg/L       0.23283      0.4874 ppb        0.23283  47.77%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.7      0.9657 µg/L       0.68994      0.9657 ppb        0.68994  71.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -4.5     -1.9333 µg/L       4.47419     -1.9333 ppb        4.47419 231.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              11.5      0.8732 µg/L       0.31367      0.8732 ppb        0.31367  35.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.7      1.6803 µg/L       7.41831      1.6803 ppb        7.41831 441.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.4     -0.1241 µg/L       1.33486     -0.1241 ppb        1.33486 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.6      6.7315 µg/L      13.29123      6.7315 ppb       13.29123 197.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.1      4.9008 µg/L       2.34787      4.9008 ppb        2.34787  47.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7      2.4665 µg/L       4.89590      2.4665 ppb        4.89590 198.50%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -10.7     -2.5105 µg/L       3.51502     -2.5105 ppb        3.51502 140.01%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              10.1      0.8897 µg/L       2.01741      0.8897 ppb        2.01741 226.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.1     -0.0333 µg/L       0.89339     -0.0333 ppb        0.89339 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -17.4     -0.0881 µg/L       0.02252     -0.0881 ppb        0.02252  25.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             156.1      0.4464 µg/L       0.34157      0.4464 ppb        0.34157  76.51%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.5      0.6918 µg/L       1.66786      0.6918 ppb        1.66786 241.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               32.3      3.1780 µg/L       1.94372      3.1780 ppb        1.94372  61.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               13.9      0.2038 µg/L       0.36728      0.2038 ppb        0.36728 180.17%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               7.3      0.2081 µg/L       0.18098      0.2081 ppb        0.18098  86.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/27/2010 16:20:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	101666.8	101666.8	103	%			16:20:51
1	Al 396.153Radial†	9568.2	9478.6	5203.3	µg/L	5203.3	ppb	16:20:51
1	Ca 317.933Radial†	14154.8	13403.7	5131.1	µg/L	5131.1	ppb	16:21:12
1	Fe 238.204 Radial†	590.1	548.5	5118.1	µg/L	5118.1	ppb	16:21:12
1	K 766.490 Radial†	8819.3	8350.7	4980.0	µg/L	4980.0	ppb	16:20:51
1	Mg 279.077 IEC†	458.3	437.4	5268.0	µg/L	5268.0	ppb	16:21:12
1	Na 589.592 Radial†	24298.7	23385.6	10047	µg/L	10047	ppb	16:20:51
1	Sr 421.552†	99339.4	96468.1	489.65	µg/L	489.65	ppb	16:20:51
1	Sc 361.383	1584403.1	1584403.1	99.497	%			16:22:14
1	Y 371.029	1102519.2	1102519.2	99.090	%			16:22:14
1	Ag 328.068†	56262.9	56325.3	518.76	µg/L	518.76	ppb	16:22:20
1	As 188.979†	269.0	268.7	531.51	µg/L	531.51	ppb	16:22:40
1	B 249.677†	10229.6	8943.0	506.51	µg/L	506.51	ppb	16:22:20
1	Ba 233.527†	18950.1	19073.5	528.73	µg/L	528.73	ppb	16:22:20
1	Be 313.107†	669603.2	675209.9	519.74	µg/L	519.74	ppb	16:22:14
1	Cd 226.502†	16380.7	16605.4	527.84	µg/L	527.84	ppb	16:22:20
1	Co 228.616†	9537.5	9571.7	532.97	µg/L	532.97	ppb	16:22:20
1	Cr 267.716†	18893.4	18909.8	531.57	µg/L	531.57	ppb	16:22:20
1	Cu 324.752†	70648.1	68343.3	525.46	µg/L	525.46	ppb	16:22:20
1	Mn 257.610†	132870.8	134105.2	529.39	µg/L	529.39	ppb	16:22:20
1	Mo 202.031†	4273.7	4290.7	536.67	µg/L	536.67	ppb	16:22:40
1	Ni 231.604†	7566.5	7315.0	555.07	µg/L	555.07	ppb	16:22:20
1	P 214.914†	1064.8	1047.0	2602.7	µg/L	2602.7	ppb	16:22:40
1	Pb 220.353†	1596.0	1563.1	534.70	µg/L	534.70	ppb	16:22:40
1	S 181.975 Axial†	264.7	252.3	1050.4	µg/L	1050.4	ppb	16:22:40
1	Sb 206.836†	463.3	444.9	528.98	µg/L	528.98	ppb	16:22:40
1	Se 196.026†	407.1	394.0	545.62	µg/L	545.62	ppb	16:22:40
1	SiO2†	25503.5	24260.0	5685.2	µg/L	5685.2	ppb	16:22:20
1	Si 251.611†	30459.3	30257.4	2652.5	µg/L	2652.5	ppb	16:22:20
1	Sn 189.927†	1070.2	1067.1	539.02	µg/L	539.02	ppb	16:22:40
1	Ti 334.940†	181412.0	182314.7	519.98	µg/L	519.98	ppb	16:22:14
1	Tl 190.801†	389.0	417.2	530.20	µg/L	530.20	ppb	16:22:40
1	U 409.014†	5347.4	5259.7	516.80	µg/L	516.80	ppb	16:22:20
1	V 292.402†	38340.4	38700.7	533.85	µg/L	533.85	ppb	16:22:20
1	Zn 213.857†	18786.8	18353.5	527.86	µg/L	527.86	ppb	16:22:20
2	Sc RADIAL	101118.2	101118.2	102	%			16:21:17
2	Al 396.153Radial†	9585.9	9546.5	5240.8	µg/L	5240.8	ppb	16:21:17
2	Ca 317.933Radial†	14198.0	13520.7	5175.8	µg/L	5175.8	ppb	16:21:38
2	Fe 238.204 Radial†	593.6	555.0	5178.4	µg/L	5178.4	ppb	16:21:38
2	K 766.490 Radial†	8820.3	8398.2	5008.4	µg/L	5008.4	ppb	16:21:17
2	Mg 279.077 IEC†	459.6	441.0	5311.8	µg/L	5311.8	ppb	16:21:38
2	Na 589.592 Radial†	24421.3	23633.7	10154	µg/L	10154	ppb	16:21:17
2	Sr 421.552†	99754.4	97398.0	494.37	µg/L	494.37	ppb	16:21:17
2	Sc 361.383	1599217.0	1599217.0	100.43	%			16:22:46
2	Y 371.029	1112469.0	1112469.0	99.984	%			16:22:46
2	Ag 328.068†	55219.4	54762.4	504.38	µg/L	504.38	ppb	16:22:52
2	As 188.979†	270.1	267.3	528.77	µg/L	528.77	ppb	16:23:12
2	B 249.677†	10044.4	8663.4	490.56	µg/L	490.56	ppb	16:22:52
2	Ba 233.527†	18594.4	18543.0	514.02	µg/L	514.02	ppb	16:22:52
2	Be 313.107†	659588.6	659003.9	507.26	µg/L	507.26	ppb	16:22:46
2	Cd 226.502†	16025.5	16099.2	511.73	µg/L	511.73	ppb	16:22:52
2	Co 228.616†	9292.7	9239.2	514.45	µg/L	514.45	ppb	16:22:52
2	Cr 267.716†	18476.6	18318.9	514.96	µg/L	514.96	ppb	16:22:52
2	Cu 324.752†	69389.3	66432.1	510.81	µg/L	510.81	ppb	16:22:52
2	Mn 257.610†	131035.9	131041.0	517.30	µg/L	517.30	ppb	16:22:52
2	Mo 202.031†	4223.8	4201.3	525.50	µg/L	525.50	ppb	16:23:12
2	Ni 231.604†	7476.1	7154.6	542.91	µg/L	542.91	ppb	16:22:52
2	P 214.914†	1064.1	1036.3	2577.0	µg/L	2577.0	ppb	16:23:12
2	Pb 220.353†	1584.5	1536.8	525.72	µg/L	525.72	ppb	16:23:12

2	S 181.975 Axial†	260.5	245.6	1022.8 µg/L	1022.8 ppb	16:23:12
2	Sb 206.836†	452.8	430.1	511.54 µg/L	511.54 ppb	16:23:12
2	Se 196.026†	406.1	389.3	539.38 µg/L	539.38 ppb	16:23:12
2	SiO2†	25202.8	23723.0	5559.3 µg/L	5559.3 ppb	16:22:52
2	Si 251.611†	30103.7	29619.8	2596.6 µg/L	2596.6 ppb	16:22:52
2	Sn 189.927†	1059.8	1046.8	528.75 µg/L	528.75 ppb	16:23:12
2	Ti 334.940†	179327.5	178550.1	509.23 µg/L	509.23 ppb	16:22:46
2	Tl 190.801†	393.8	418.4	531.56 µg/L	531.56 ppb	16:23:12
2	U 409.014†	5260.3	5123.2	503.35 µg/L	503.35 ppb	16:22:52
2	V 292.402†	37587.0	37593.6	518.62 µg/L	518.62 ppb	16:22:52
2	Zn 213.857†	18466.6	17859.8	513.63 µg/L	513.63 ppb	16:22:52
3	Sc RADIAL	101194.7	101194.7	102 %		16:21:43
3	Al 396.153Radial†	9504.4	9459.7	5194.8 µg/L	5194.8 ppb	16:21:43
3	Ca 317.933Radial†	14140.2	13453.8	5150.2 µg/L	5150.2 ppb	16:22:04
3	Fe 238.204 Radial†	590.9	551.9	5148.8 µg/L	5148.8 ppb	16:22:04
3	K 766.490 Radial†	8809.7	8381.3	4998.3 µg/L	4998.3 ppb	16:21:43
3	Mg 279.077 IEC†	457.0	438.2	5276.7 µg/L	5276.7 ppb	16:22:04
3	Na 589.592 Radial†	24267.9	23465.8	10082 µg/L	10082 ppb	16:21:43
3	Sr 421.552†	98968.3	96556.2	490.10 µg/L	490.10 ppb	16:21:43
3	Sc 361.383	1607568.3	1607568.3	100.95 %		16:23:18
3	Y 371.029	1120493.0	1120493.0	100.71 %		16:23:18
3	Ag 328.068†	52256.4	51541.7	474.61 µg/L	474.61 ppb	16:23:24
3	As 188.979†	228.4	224.6	443.97 µg/L	443.97 ppb	16:23:44
3	B 249.677†	9550.2	8121.8	459.70 µg/L	459.70 ppb	16:23:24
3	Ba 233.527†	17353.6	17217.7	477.26 µg/L	477.26 ppb	16:23:24
3	Be 313.107†	623551.2	619894.4	477.16 µg/L	477.16 ppb	16:23:18
3	Cd 226.502†	14781.8	14784.3	469.88 µg/L	469.88 ppb	16:23:24
3	Co 228.616†	8494.3	8400.3	467.67 µg/L	467.67 ppb	16:23:24
3	Cr 267.716†	16562.1	16326.8	458.97 µg/L	458.97 ppb	16:23:24
3	Cu 324.752†	63523.2	60262.4	463.45 µg/L	463.45 ppb	16:23:24
3	Mn 257.610†	121336.8	120755.6	476.69 µg/L	476.69 ppb	16:23:24
3	Mo 202.031†	3569.2	3531.0	441.69 µg/L	441.69 ppb	16:23:44
3	Ni 231.604†	6843.9	6489.7	492.46 µg/L	492.46 ppb	16:23:24
3	P 214.914†	919.5	887.6	2204.1 µg/L	2204.1 ppb	16:23:44
3	Pb 220.353†	1393.6	1339.5	458.19 µg/L	458.19 ppb	16:23:44
3	S 181.975 Axial†	240.8	224.8	935.89 µg/L	935.89 ppb	16:23:44
3	Sb 206.836†	392.5	368.1	437.36 µg/L	437.36 ppb	16:23:44
3	Se 196.026†	357.2	338.7	470.93 µg/L	470.93 ppb	16:23:44
3	SiO2†	23941.2	22343.0	5235.9 µg/L	5235.9 ppb	16:23:24
3	Si 251.611†	28585.9	27960.5	2451.1 µg/L	2451.1 ppb	16:23:24
3	Sn 189.927†	888.5	871.6	440.34 µg/L	440.34 ppb	16:23:44
3	Ti 334.940†	169333.9	167723.1	478.34 µg/L	478.34 ppb	16:23:18
3	Tl 190.801†	349.4	372.4	473.38 µg/L	473.38 ppb	16:23:44
3	U 409.014†	4768.3	4608.6	452.69 µg/L	452.69 ppb	16:23:24
3	V 292.402†	34117.2	33962.1	468.27 µg/L	468.27 ppb	16:23:24
3	Zn 213.857†	16951.0	16263.0	467.67 µg/L	467.67 ppb	16:23:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1597062.8	100.29	%	0.737				0.73%
Sc RADIAL	101326.6	102	%	0.3				0.29%
Y 371.029	1111827.1	99.926	%	0.8092				0.81%
Ag 328.068†	54209.8	499.25	µg/L	22.519	499.25	ppb	22.519	4.51%
QC value within limits for Ag 328.068 Recovery = 99.85%								
Al 396.153Radial†	9494.9	5213.0	µg/L	24.49	5213.0	ppb	24.49	0.47%
QC value within limits for Al 396.153Radial Recovery = 104.26%								
As 188.979†	253.6	501.42	µg/L	49.766	501.42	ppb	49.766	9.93%
QC value within limits for As 188.979 Recovery = 100.28%								
B 249.677†	8576.1	485.59	µg/L	23.796	485.59	ppb	23.796	4.90%
QC value within limits for B 249.677 Recovery = 97.12%								
Ba 233.527†	18278.0	506.67	µg/L	26.511	506.67	ppb	26.511	5.23%
QC value within limits for Ba 233.527 Recovery = 101.33%								
Be 313.107†	651369.4	501.39	µg/L	21.889	501.39	ppb	21.889	4.37%
QC value within limits for Be 313.107 Recovery = 100.28%								
Ca 317.933Radial†	13459.4	5152.4	µg/L	22.47	5152.4	ppb	22.47	0.44%
QC value within limits for Ca 317.933Radial Recovery = 103.05%								
Cd 226.502†	15829.6	503.15	µg/L	29.914	503.15	ppb	29.914	5.95%
QC value within limits for Cd 226.502 Recovery = 100.63%								
Co 228.616†	9070.4	505.03	µg/L	33.653	505.03	ppb	33.653	6.66%

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   QC value within limits for Co 228.616  Recovery = 101.01%
Cr 267.716†            17851.8      501.83 µg/L        38.041      501.83 ppb         38.041   7.58%
   QC value within limits for Cr 267.716  Recovery = 100.37%
Cu 324.752†            65012.6      499.91 µg/L        32.410      499.91 ppb         32.410   6.48%
   QC value within limits for Cu 324.752  Recovery = 99.98%
Fe 238.204 Radial†       551.8      5148.5 µg/L         30.15      5148.5 ppb          30.15   0.59%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.97%
K 766.490 Radial†       8376.7      4995.6 µg/L         14.37      4995.6 ppb          14.37   0.29%
   QC value within limits for K 766.490 Radial  Recovery = 99.91%
Mg 279.077 IEC†          438.9      5285.5 µg/L         23.19      5285.5 ppb          23.19   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.71%
Mn 257.610†           128633.9      507.79 µg/L        27.607      507.79 ppb         27.607   5.44%
   QC value within limits for Mn 257.610  Recovery = 101.56%
Mo 202.031†            4007.7      501.29 µg/L        51.916      501.29 ppb         51.916  10.36%
   QC value within limits for Mo 202.031  Recovery = 100.26%
Na 589.592 Radial†    23495.1       10094 µg/L          54.4       10094 ppb           54.4   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 100.94%
Ni 231.604†            6986.4      530.14 µg/L        33.200      530.14 ppb         33.200   6.26%
   QC value within limits for Ni 231.604  Recovery = 106.03%
P 214.914†              990.3      2461.3 µg/L        223.13      2461.3 ppb         223.13   9.07%
   QC value within limits for P 214.914  Recovery = 98.45%
Pb 220.353†            1479.8      506.20 µg/L        41.824      506.20 ppb         41.824   8.26%
   QC value within limits for Pb 220.353  Recovery = 101.24%
S 181.975 Axial†        240.9      1003.1 µg/L         59.79      1003.1 ppb          59.79   5.96%
   QC value within limits for S 181.975 Axial  Recovery = 100.31%
Sb 206.836†             414.4      492.63 µg/L        48.648      492.63 ppb         48.648   9.88%
   QC value within limits for Sb 206.836  Recovery = 98.53%
Se 196.026†             374.0      518.65 µg/L        41.437      518.65 ppb         41.437   7.99%
   QC value within limits for Se 196.026  Recovery = 103.73%
SiO2†                  23442.0      5493.5 µg/L        231.74      5493.5 ppb         231.74   4.22%
   QC value within limits for SiO2  Recovery = 102.73%
Si 251.611†            29279.3      2566.7 µg/L        103.94      2566.7 ppb         103.94   4.05%
   QC value within limits for Si 251.611  Recovery = 102.67%
Sn 189.927†             995.2      502.71 µg/L        54.251      502.71 ppb         54.251  10.79%
   QC value within limits for Sn 189.927  Recovery = 100.54%
Sr 421.552†            96807.5      491.38 µg/L         2.606      491.38 ppb          2.606   0.53%
   QC value within limits for Sr 421.552  Recovery = 98.28%
Ti 334.940†           176196.0      502.52 µg/L        21.619      502.52 ppb         21.619   4.30%
   QC value within limits for Ti 334.940  Recovery = 100.50%
Tl 190.801†             402.7      511.71 µg/L        33.205      511.71 ppb         33.205   6.49%
   QC value within limits for Tl 190.801  Recovery = 102.34%
U 409.014†             4997.2      490.95 µg/L        33.804      490.95 ppb         33.804   6.89%
   QC value within limits for U 409.014  Recovery = 98.19%
V 292.402†            36752.1      506.91 µg/L        34.324      506.91 ppb         34.324   6.77%
   QC value within limits for V 292.402  Recovery = 101.38%
Zn 213.857†           17492.1      503.05 µg/L        31.457      503.05 ppb         31.457   6.25%
   QC value within limits for Zn 213.857  Recovery = 100.61%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/27/2010 16:23:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	98415.1	98415.1	99.5	%			16:24:27
1	Al 396.153Radial†	-174.6	-2.4	-1.3687	µg/L	-1.3687	ppb	16:24:27
1	Ca 317.933Radial†	356.7	-4.4	-1.6692	µg/L	-1.6692	ppb	16:24:47
1	Fe 238.204 Radial†	30.6	5.3	49.741	µg/L	49.741	ppb	16:24:47
1	K 766.490 Radial†	204.0	-21.7	-12.961	µg/L	-12.961	ppb	16:24:27
1	Mg 279.077 IEC†	14.3	6.0	72.247	µg/L	72.247	ppb	16:24:47
1	Na 589.592 Radial†	197.8	-47.8	-20.525	µg/L	-20.525	ppb	16:24:27
1	Sr 421.552†	158.0	12.7	0.0645	µg/L	0.0645	ppb	16:24:27
1	Sc 361.383	1606991.2	1606991.2	100.92	%			16:25:49
1	Y 371.029	1123828.1	1123828.1	101.00	%			16:25:49
1	Ag 328.068†	253.4	29.3	0.2770	µg/L	0.2770	ppb	16:25:54
1	As 188.979†	4.0	2.3	4.5437	µg/L	4.5437	ppb	16:26:15
1	B 249.677†	1208.2	-141.0	-8.0415	µg/L	-8.0415	ppb	16:25:54
1	Ba 233.527†	-3.0	24.7	0.6864	µg/L	0.6864	ppb	16:26:15
1	Be 313.107†	-1672.5	566.8	0.4362	µg/L	0.4362	ppb	16:25:54
1	Cd 226.502†	-121.6	21.4	0.6746	µg/L	0.6746	ppb	16:26:15
1	Co 228.616†	30.0	15.8	0.8815	µg/L	0.8815	ppb	16:26:15
1	Cr 267.716†	116.4	36.3	1.0198	µg/L	1.0198	ppb	16:26:15
1	Cu 324.752†	2700.0	13.8	0.1153	µg/L	0.1153	ppb	16:25:54
1	Mn 257.610†	-315.7	250.3	0.9864	µg/L	0.9864	ppb	16:26:15
1	Mo 202.031†	13.1	8.4	1.0577	µg/L	1.0577	ppb	16:26:15
1	Ni 231.604†	303.6	11.2	0.8466	µg/L	0.8466	ppb	16:26:15
1	P 214.914†	24.4	0.9	2.3241	µg/L	2.3241	ppb	16:26:15
1	Pb 220.353†	46.9	5.6	1.8922	µg/L	1.8922	ppb	16:26:15
1	S 181.975 Axial†	19.0	5.0	20.950	µg/L	20.950	ppb	16:26:15
1	Sb 206.836†	23.8	2.8	3.3467	µg/L	3.3467	ppb	16:26:15
1	Se 196.026†	20.8	5.5	7.5920	µg/L	7.5920	ppb	16:26:15
1	SiO2†	1411.2	26.0	6.0961	µg/L	6.0961	ppb	16:25:54
1	Si 251.611†	454.1	94.3	8.2658	µg/L	8.2658	ppb	16:26:15
1	Sn 189.927†	9.8	1.3	0.6384	µg/L	0.6384	ppb	16:26:15
1	Ti 334.940†	244.1	228.1	0.6452	µg/L	0.6452	ppb	16:25:54
1	Tl 190.801†	-24.2	2.3	2.8686	µg/L	2.8686	ppb	16:26:15
1	U 409.014†	268.6	151.4	14.902	µg/L	14.902	ppb	16:25:54
1	V 292.402†	-104.6	63.0	0.8865	µg/L	0.8865	ppb	16:25:54
1	Zn 213.857†	563.5	30.2	0.8657	µg/L	0.8657	ppb	16:26:15
2	Sc RADIAL	99018.7	99018.7	100	%			16:24:53
2	Al 396.153Radial†	-199.3	-26.1	-14.440	µg/L	-14.440	ppb	16:24:53
2	Ca 317.933Radial†	348.1	-15.1	-5.7768	µg/L	-5.7768	ppb	16:25:13
2	Fe 238.204 Radial†	29.1	3.6	33.747	µg/L	33.747	ppb	16:25:13
2	K 766.490 Radial†	242.2	15.1	9.0338	µg/L	9.0338	ppb	16:24:53
2	Mg 279.077 IEC†	9.1	0.7	8.8345	µg/L	8.8345	ppb	16:25:13
2	Na 589.592 Radial†	207.3	-39.5	-16.951	µg/L	-16.951	ppb	16:24:53
2	Sr 421.552†	130.2	-16.1	-0.0817	µg/L	-0.0817	ppb	16:24:53
2	Sc 361.383	1611789.1	1611789.1	101.22	%			16:26:21
2	Y 371.029	1125361.6	1125361.6	101.14	%			16:26:21
2	Ag 328.068†	332.5	106.7	0.9916	µg/L	0.9916	ppb	16:26:26
2	As 188.979†	1.9	0.3	0.5258	µg/L	0.5258	ppb	16:26:47
2	B 249.677†	1227.2	-125.8	-7.1646	µg/L	-7.1646	ppb	16:26:26
2	Ba 233.527†	66.0	92.9	2.5737	µg/L	2.5737	ppb	16:26:47
2	Be 313.107†	-191.1	2035.2	1.5665	µg/L	1.5665	ppb	16:26:26
2	Cd 226.502†	-58.8	83.9	2.6645	µg/L	2.6645	ppb	16:26:47
2	Co 228.616†	57.4	42.8	2.3859	µg/L	2.3859	ppb	16:26:47
2	Cr 267.716†	177.2	96.0	2.6996	µg/L	2.6996	ppb	16:26:47
2	Cu 324.752†	2812.1	116.6	0.9008	µg/L	0.9008	ppb	16:26:26
2	Mn 257.610†	160.3	721.5	2.8498	µg/L	2.8498	ppb	16:26:47
2	Mo 202.031†	33.0	28.1	3.5134	µg/L	3.5134	ppb	16:26:47
2	Ni 231.604†	329.7	36.1	2.7371	µg/L	2.7371	ppb	16:26:47
2	P 214.914†	27.7	4.1	10.254	µg/L	10.254	ppb	16:26:47
2	Pb 220.353†	56.8	15.1	5.1644	µg/L	5.1644	ppb	16:26:47

2	S 181.975 Axial†	14.4	0.4	1.6757 µg/L	1.6757 ppb	16:26:47
2	Sb 206.836†	25.2	4.1	4.8845 µg/L	4.8845 ppb	16:26:47
2	Se 196.026†	9.5	-5.7	-7.6547 µg/L	-7.6547 ppb	16:26:47
2	SiO2†	1468.1	78.0	18.276 µg/L	18.276 ppb	16:26:26
2	Si 251.611†	562.9	200.4	17.569 µg/L	17.569 ppb	16:26:47
2	Sn 189.927†	15.1	6.5	3.2760 µg/L	3.2760 ppb	16:26:47
2	Ti 334.940†	695.7	673.6	1.9217 µg/L	1.9217 ppb	16:26:26
2	Tl 190.801†	-26.2	0.4	0.4969 µg/L	0.4969 ppb	16:26:47
2	U 409.014†	293.4	175.2	17.241 µg/L	17.241 ppb	16:26:26
2	V 292.402†	-15.3	151.5	2.1181 µg/L	2.1181 ppb	16:26:26
2	Zn 213.857†	618.0	82.4	2.3707 µg/L	2.3707 ppb	16:26:47
3	Sc RADIAL	99058.8	99058.8	100 %		16:25:18
3	Al 396.153Radial†	-207.9	-34.5	-19.119 µg/L	-19.119 ppb	16:25:18
3	Ca 317.933Radial†	365.6	2.3	0.8646 µg/L	0.8646 ppb	16:25:39
3	Fe 238.204 Radial†	31.3	5.8	54.526 µg/L	54.526 ppb	16:25:39
3	K 766.490 Radial†	223.6	-3.5	-2.0740 µg/L	-2.0740 ppb	16:25:18
3	Mg 279.077 IEC†	11.0	2.7	32.049 µg/L	32.049 ppb	16:25:39
3	Na 589.592 Radial†	241.6	-5.3	-2.2720 µg/L	-2.2720 ppb	16:25:18
3	Sr 421.552†	178.0	31.6	0.1602 µg/L	0.1602 ppb	16:25:18
3	Sc 361.383	1616768.9	1616768.9	101.53 %		16:26:53
3	Y 371.029	1129447.5	1129447.5	101.51 %		16:26:53
3	Ag 328.068†	562.9	332.6	3.0711 µg/L	3.0711 ppb	16:26:58
3	As 188.979†	4.9	3.2	6.3958 µg/L	6.3958 ppb	16:27:19
3	B 249.677†	1229.6	-127.2	-7.2495 µg/L	-7.2495 ppb	16:26:58
3	Ba 233.527†	139.5	165.2	4.5773 µg/L	4.5773 ppb	16:27:19
3	Be 313.107†	3106.3	5283.6	4.0668 µg/L	4.0668 ppb	16:26:58
3	Cd 226.502†	0.1	142.0	4.5131 µg/L	4.5131 ppb	16:27:19
3	Co 228.616†	86.2	71.0	3.9521 µg/L	3.9521 ppb	16:27:19
3	Cr 267.716†	249.6	166.8	4.6879 µg/L	4.6879 ppb	16:27:19
3	Cu 324.752†	3157.8	448.5	3.4526 µg/L	3.4526 ppb	16:26:58
3	Mn 257.610†	681.8	1234.7	4.8755 µg/L	4.8755 ppb	16:27:19
3	Mo 202.031†	49.8	44.6	5.5778 µg/L	5.5778 ppb	16:27:19
3	Ni 231.604†	347.5	52.5	3.9854 µg/L	3.9854 ppb	16:27:19
3	P 214.914†	36.3	12.5	31.338 µg/L	31.338 ppb	16:27:19
3	Pb 220.353†	54.0	12.2	4.1742 µg/L	4.1742 ppb	16:27:19
3	S 181.975 Axial†	20.8	6.7	27.963 µg/L	27.963 ppb	16:27:19
3	Sb 206.836†	30.4	9.2	10.961 µg/L	10.961 ppb	16:27:19
3	Se 196.026†	17.2	1.9	2.6626 µg/L	2.6626 ppb	16:27:19
3	SiO2†	1609.4	212.8	49.860 µg/L	49.860 ppb	16:26:58
3	Si 251.611†	715.8	349.2	30.616 µg/L	30.616 ppb	16:27:19
3	Sn 189.927†	19.9	11.2	5.6308 µg/L	5.6308 ppb	16:27:19
3	Ti 334.940†	1644.4	1605.9	4.5805 µg/L	4.5805 ppb	16:26:58
3	Tl 190.801†	-21.3	5.3	6.7514 µg/L	6.7514 ppb	16:27:19
3	U 409.014†	265.7	147.0	14.460 µg/L	14.460 ppb	16:26:58
3	V 292.402†	128.6	293.3	4.0706 µg/L	4.0706 ppb	16:26:58
3	Zn 213.857†	677.5	139.1	4.0027 µg/L	4.0027 ppb	16:27:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1611849.7	101.22	%	0.307				0.30%
Sc RADIAL	98830.9	100.0	%	0.36				0.36%
Y 371.029	1126212.4	101.22	%	0.261				0.26%
Ag 328.068†	156.2	1.4466	µg/L	1.45152	1.4466	ppb	1.45152	100.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-21.0	-11.642	µg/L	9.1997	-11.642	ppb	9.1997	79.02%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	3.8217	µg/L	3.00083	3.8217	ppb	3.00083	78.52%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-131.3	-7.4852	µg/L	0.48365	-7.4852	ppb	0.48365	6.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	94.3	2.6124	µg/L	1.94572	2.6124	ppb	1.94572	74.48%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	2628.5	2.0231	µg/L	1.85789	2.0231	ppb	1.85789	91.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.7	-2.1938	µg/L	3.35162	-2.1938	ppb	3.35162	152.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	82.4	2.6174	µg/L	1.91965	2.6174	ppb	1.91965	73.34%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	43.2	2.4065	µg/L	1.53541	2.4065	ppb	1.53541	63.80%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              99.7      2.8024 µg/L       1.83622      2.8024 ppb        1.83622  65.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             193.0      1.4896 µg/L       1.74479      1.4896 ppb        1.74479 117.13%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        4.9      46.004 µg/L       10.8819      46.004 ppb        10.8819  23.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -3.4     -2.0005 µg/L      10.99768     -2.0005 ppb       10.99768 549.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.1      37.710 µg/L       32.0829      37.710 ppb        32.0829  85.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             735.5      2.9039 µg/L       1.94510      2.9039 ppb        1.94510  66.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              27.0      3.3829 µg/L       2.26291      3.3829 ppb        2.26291  66.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -30.8     -13.249 µg/L        9.6732     -13.249 ppb         9.6732  73.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              33.2      2.5230 µg/L       1.58027      2.5230 ppb        1.58027  62.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                5.8      14.639 µg/L       14.9960      14.639 ppb        14.9960 102.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              11.0      3.7436 µg/L       1.67804      3.7436 ppb        1.67804  44.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.0      16.863 µg/L       13.6118      16.863 ppb        13.6118  80.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.4      6.3975 µg/L       4.02649      6.3975 ppb        4.02649  62.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.5      0.8666 µg/L       7.78038      0.8666 ppb        7.78038 897.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   105.6      24.744 µg/L       22.5877      24.744 ppb        22.5877  91.29%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             214.6      18.817 µg/L       11.2270      18.817 ppb        11.2270  59.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.3      3.1818 µg/L       2.49755      3.1818 ppb        2.49755  78.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               9.4      0.0476 µg/L       0.12181      0.0476 ppb        0.12181 255.68%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             835.9      2.3825 µg/L       2.00770      2.3825 ppb        2.00770  84.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.6      3.3723 µg/L       3.15756      3.3723 ppb        3.15756  93.63%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              157.9      15.534 µg/L        1.4946      15.534 ppb         1.4946   9.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              169.2      2.3584 µg/L       1.60559      2.3584 ppb        1.60559  68.08%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              83.9      2.4130 µg/L       1.56892      2.4130 ppb        1.56892  65.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/27/2010 17:03:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	99933.0	99933.0	101	%			17:04:24
1	Al 396.153Radial†	9788.3	9857.9	5412.0	µg/L	5412.0	ppb	17:04:24
1	Ca 317.933Radial†	14426.8	13911.7	5325.5	µg/L	5325.5	ppb	17:04:45
1	Fe 238.204 Radial†	606.5	574.7	5362.1	µg/L	5362.1	ppb	17:04:45
1	K 766.490 Radial†	9032.7	8710.7	5194.7	µg/L	5194.7	ppb	17:04:24
1	Mg 279.077 IEC†	465.8	452.6	5450.3	µg/L	5450.3	ppb	17:04:45
1	Na 589.592 Radial†	24947.3	24437.4	10499	µg/L	10499	ppb	17:04:24
1	Sr 421.552†	102118.4	100894.0	512.12	µg/L	512.12	ppb	17:04:24
1	Sc 361.383	1563435.9	1563435.9	98.181	%			17:05:47
1	Y 371.029	1087537.3	1087537.3	97.743	%			17:05:47
1	Ag 328.068†	55343.2	56147.0	517.14	µg/L	517.14	ppb	17:05:53
1	As 188.979†	264.6	267.9	529.74	µg/L	529.74	ppb	17:06:13
1	B 249.677†	10016.4	8863.7	501.87	µg/L	501.87	ppb	17:05:53
1	Ba 233.527†	18599.5	18971.9	525.91	µg/L	525.91	ppb	17:05:53
1	Be 313.107†	675849.9	690597.7	531.58	µg/L	531.58	ppb	17:05:47
1	Cd 226.502†	16084.6	16524.6	525.24	µg/L	525.24	ppb	17:05:53
1	Co 228.616†	9342.3	9501.5	529.02	µg/L	529.02	ppb	17:05:53
1	Cr 267.716†	18517.3	18781.4	527.96	µg/L	527.96	ppb	17:05:53
1	Cu 324.752†	69314.9	67937.6	522.40	µg/L	522.40	ppb	17:05:53
1	Mn 257.610†	132101.5	135112.5	533.37	µg/L	533.37	ppb	17:05:53
1	Mo 202.031†	4183.2	4256.2	532.36	µg/L	532.36	ppb	17:06:13
1	Ni 231.604†	7491.7	7340.8	557.03	µg/L	557.03	ppb	17:05:53
1	P 214.914†	1060.5	1056.9	2627.9	µg/L	2627.9	ppb	17:06:13
1	Pb 220.353†	1567.9	1556.0	532.28	µg/L	532.28	ppb	17:06:13
1	S 181.975 Axial†	264.3	255.4	1063.5	µg/L	1063.5	ppb	17:06:13
1	Sb 206.836†	448.3	435.9	518.30	µg/L	518.30	ppb	17:06:13
1	Se 196.026†	384.7	376.7	522.87	µg/L	522.87	ppb	17:06:13
1	SiO2†	25111.4	24204.3	5672.1	µg/L	5672.1	ppb	17:05:53
1	Si 251.611†	30067.8	30269.3	2653.5	µg/L	2653.5	ppb	17:05:53
1	Sn 189.927†	1044.6	1055.6	533.18	µg/L	533.18	ppb	17:06:13
1	Ti 334.940†	183834.4	187227.2	533.99	µg/L	533.99	ppb	17:05:47
1	Tl 190.801†	383.3	416.7	529.70	µg/L	529.70	ppb	17:06:13
1	U 409.014†	5259.3	5242.1	515.01	µg/L	515.01	ppb	17:05:53
1	V 292.402†	37710.5	38575.9	532.12	µg/L	532.12	ppb	17:05:53
1	Zn 213.857†	18478.3	18292.5	526.07	µg/L	526.07	ppb	17:05:53
2	Sc RADIAL	100789.8	100789.8	102	%			17:04:50
2	Al 396.153Radial†	9757.8	9745.6	5351.3	µg/L	5351.3	ppb	17:04:50
2	Ca 317.933Radial†	14389.3	13753.6	5265.0	µg/L	5265.0	ppb	17:05:11
2	Fe 238.204 Radial†	607.4	570.4	5321.6	µg/L	5321.6	ppb	17:05:11
2	K 766.490 Radial†	8900.1	8504.6	5071.8	µg/L	5071.8	ppb	17:04:50
2	Mg 279.077 IEC†	465.8	448.6	5401.9	µg/L	5401.9	ppb	17:05:11
2	Na 589.592 Radial†	24896.7	24177.9	10388	µg/L	10388	ppb	17:04:50
2	Sr 421.552†	101755.1	99678.7	505.95	µg/L	505.95	ppb	17:04:50
2	Sc 361.383	1648805.1	1648805.1	103.54	%			17:06:19
2	Y 371.029	1148262.7	1148262.7	103.20	%			17:06:19
2	Ag 328.068†	53556.7	51503.0	474.38	µg/L	474.38	ppb	17:06:25
2	As 188.979†	257.8	247.3	489.06	µg/L	489.06	ppb	17:06:45
2	B 249.677†	9824.3	8150.0	461.25	µg/L	461.25	ppb	17:06:25
2	Ba 233.527†	18033.1	17444.0	483.55	µg/L	483.55	ppb	17:06:25
2	Be 313.107†	638653.4	619032.0	476.49	µg/L	476.49	ppb	17:06:19
2	Cd 226.502†	15490.4	15102.4	479.99	µg/L	479.99	ppb	17:06:25
2	Co 228.616†	9006.0	8684.0	483.51	µg/L	483.51	ppb	17:06:25
2	Cr 267.716†	17825.8	17137.1	481.74	µg/L	481.74	ppb	17:06:25
2	Cu 324.752†	67013.7	62059.8	477.28	µg/L	477.28	ppb	17:06:25
2	Mn 257.610†	131974.4	128023.3	505.38	µg/L	505.38	ppb	17:06:25
2	Mo 202.031†	4004.5	3863.0	483.20	µg/L	483.20	ppb	17:06:45
2	Ni 231.604†	7239.2	6701.9	508.56	µg/L	508.56	ppb	17:06:25
2	P 214.914†	1013.9	956.0	2376.4	µg/L	2376.4	ppb	17:06:45
2	Pb 220.353†	1502.7	1410.4	482.51	µg/L	482.51	ppb	17:06:45

2	S 181.975 Axial†	248.3	226.0	941.01 µg/L	941.01 ppb	17:06:45
2	Sb 206.836†	429.8	394.4	468.88 µg/L	468.88 ppb	17:06:45
2	Se 196.026†	384.0	355.8	494.45 µg/L	494.45 ppb	17:06:45
2	SiO2†	25025.1	22796.7	5342.2 µg/L	5342.2 ppb	17:06:25
2	Si 251.611†	29913.3	28534.4	2501.4 µg/L	2501.4 ppb	17:06:25
2	Sn 189.927†	1003.8	961.0	485.44 µg/L	485.44 ppb	17:06:45
2	Ti 334.940†	176540.9	170488.5	486.22 µg/L	486.22 ppb	17:06:19
2	Tl 190.801†	369.3	383.0	486.81 µg/L	486.81 ppb	17:06:45
2	U 409.014†	4986.2	4701.0	461.75 µg/L	461.75 ppb	17:06:25
2	V 292.402†	36301.9	35226.8	485.90 µg/L	485.90 ppb	17:06:25
2	Zn 213.857†	17927.6	16786.2	482.72 µg/L	482.72 ppb	17:06:25
3	Sc RADIAL	99872.8	99872.8	101 %		17:05:16
3	Al 396.153Radial†	9845.6	9920.4	5449.2 µg/L	5449.2 ppb	17:05:16
3	Ca 317.933Radial†	14450.3	13943.6	5337.7 µg/L	5337.7 ppb	17:05:37
3	Fe 238.204 Radial†	615.4	583.8	5445.3 µg/L	5445.3 ppb	17:05:37
3	K 766.490 Radial†	9037.5	8720.8	5200.8 µg/L	5200.8 ppb	17:05:16
3	Mg 279.077 IEC†	467.9	454.9	5475.7 µg/L	5475.7 ppb	17:05:37
3	Na 589.592 Radial†	25062.7	24566.6	10555 µg/L	10555 ppb	17:05:16
3	Sr 421.552†	102684.1	101515.0	515.27 µg/L	515.27 ppb	17:05:16
3	Sc 361.383	1657274.9	1657274.9	104.07 %		17:06:51
3	Y 371.029	1153701.1	1153701.1	103.69 %		17:06:51
3	Ag 328.068†	49851.9	47678.9	439.08 µg/L	439.08 ppb	17:06:57
3	As 188.979†	213.5	203.5	402.06 µg/L	402.06 ppb	17:07:17
3	B 249.677†	9153.1	7456.6	421.67 µg/L	421.67 ppb	17:06:57
3	Ba 233.527†	16461.9	15845.2	439.22 µg/L	439.22 ppb	17:06:57
3	Be 313.107†	586707.1	565966.6	435.64 µg/L	435.64 ppb	17:06:51
3	Cd 226.502†	13965.6	13560.8	430.92 µg/L	430.92 ppb	17:06:57
3	Co 228.616†	8088.3	7757.8	431.86 µg/L	431.86 ppb	17:06:57
3	Cr 267.716†	15655.7	14963.9	420.65 µg/L	420.65 ppb	17:06:57
3	Cu 324.752†	60564.8	55532.6	427.21 µg/L	427.21 ppb	17:06:57
3	Mn 257.610†	125846.3	121483.7	479.57 µg/L	479.57 ppb	17:06:57
3	Mo 202.031†	3299.8	3166.1	396.07 µg/L	396.07 ppb	17:07:17
3	Ni 231.604†	6495.7	5951.8	451.64 µg/L	451.64 ppb	17:06:57
3	P 214.914†	851.3	794.7	1971.5 µg/L	1971.5 ppb	17:07:17
3	Pb 220.353†	1303.0	1211.0	414.30 µg/L	414.30 ppb	17:07:17
3	S 181.975 Axial†	223.2	200.7	835.79 µg/L	835.79 ppb	17:07:17
3	Sb 206.836†	370.2	334.9	397.85 µg/L	397.85 ppb	17:07:17
3	Se 196.026†	333.8	305.7	427.07 µg/L	427.07 ppb	17:07:17
3	SiO2†	24187.1	21867.9	5124.6 µg/L	5124.6 ppb	17:06:57
3	Si 251.611†	28925.2	27437.3	2405.2 µg/L	2405.2 ppb	17:06:57
3	Sn 189.927†	815.0	774.7	391.41 µg/L	391.41 ppb	17:07:17
3	Ti 334.940†	167649.3	161073.5	459.35 µg/L	459.35 ppb	17:06:51
3	Tl 190.801†	327.9	341.4	434.24 µg/L	434.24 ppb	17:07:17
3	U 409.014†	4390.1	4103.6	402.91 µg/L	402.91 ppb	17:06:57
3	V 292.402†	32423.2	31320.7	431.77 µg/L	431.77 ppb	17:06:57
3	Zn 213.857†	16317.1	15150.3	435.65 µg/L	435.65 ppb	17:06:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1623171.9	101.93	%	3.260				3.20%
Sc RADIAL	100198.5	101	%	0.5				0.51%
Y 371.029	1129833.7	101.54	%	3.301				3.25%
Ag 328.068†	51776.3	476.87	µg/L	39.087	476.87	ppb	39.087	8.20%
QC value within limits for Ag 328.068 Recovery = 95.37%								
Al 396.153Radial†	9841.3	5404.2	µg/L	49.44	5404.2	ppb	49.44	0.91%
QC value within limits for Al 396.153Radial Recovery = 108.08%								
As 188.979†	239.6	473.62	µg/L	65.222	473.62	ppb	65.222	13.77%
QC value within limits for As 188.979 Recovery = 94.72%								
B 249.677†	8156.8	461.60	µg/L	40.101	461.60	ppb	40.101	8.69%
QC value within limits for B 249.677 Recovery = 92.32%								
Ba 233.527†	17420.4	482.90	µg/L	43.351	482.90	ppb	43.351	8.98%
QC value within limits for Ba 233.527 Recovery = 96.58%								
Be 313.107†	625198.8	481.24	µg/L	48.147	481.24	ppb	48.147	10.00%
QC value within limits for Be 313.107 Recovery = 96.25%								
Ca 317.933Radial†	13869.6	5309.4	µg/L	38.95	5309.4	ppb	38.95	0.73%
QC value within limits for Ca 317.933Radial Recovery = 106.19%								
Cd 226.502†	15062.6	478.72	µg/L	47.177	478.72	ppb	47.177	9.85%
QC value within limits for Cd 226.502 Recovery = 95.74%								
Co 228.616†	8647.8	481.46	µg/L	48.615	481.46	ppb	48.615	10.10%

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   QC value within limits for Co 228.616  Recovery = 96.29%
Cr 267.716†            16960.8      476.79 µg/L        53.825      476.79 ppb         53.825  11.29%
   QC value within limits for Cr 267.716  Recovery = 95.36%
Cu 324.752†            61843.3      475.63 µg/L        47.615      475.63 ppb         47.615  10.01%
   QC value within limits for Cu 324.752  Recovery = 95.13%
Fe 238.204 Radial†       576.3      5376.3 µg/L         63.08      5376.3 ppb          63.08   1.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.53%
K 766.490 Radial†       8645.3      5155.8 µg/L         72.77      5155.8 ppb          72.77   1.41%
   QC value within limits for K 766.490 Radial  Recovery = 103.12%
Mg 279.077 IEC†          452.0      5442.6 µg/L         37.51      5442.6 ppb          37.51   0.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.85%
Mn 257.610†           128206.5      506.11 µg/L        26.909      506.11 ppb         26.909   5.32%
   QC value within limits for Mn 257.610  Recovery = 101.22%
Mo 202.031†            3761.8      470.54 µg/L        69.020      470.54 ppb         69.020  14.67%
   QC value within limits for Mo 202.031  Recovery = 94.11%
Na 589.592 Radial†     24393.9       10481 µg/L          85.0       10481 ppb           85.0   0.81%
   QC value within limits for Na 589.592 Radial  Recovery = 104.81%
Ni 231.604†            6664.8      505.74 µg/L        52.752      505.74 ppb         52.752  10.43%
   QC value within limits for Ni 231.604  Recovery = 101.15%
P 214.914†              935.9      2325.3 µg/L        331.17      2325.3 ppb         331.17  14.24%
   QC value within limits for P 214.914  Recovery = 93.01%
Pb 220.353†            1392.5      476.36 µg/L        59.228      476.36 ppb         59.228  12.43%
   QC value within limits for Pb 220.353  Recovery = 95.27%
S 181.975 Axial†         227.4      946.78 µg/L       113.986      946.78 ppb        113.986  12.04%
   QC value within limits for S 181.975 Axial  Recovery = 94.68%
Sb 206.836†              388.4      461.68 µg/L        60.550      461.68 ppb         60.550  13.12%
   QC value within limits for Sb 206.836  Recovery = 92.34%
Se 196.026†              346.1      481.47 µg/L        49.202      481.47 ppb         49.202  10.22%
   QC value within limits for Se 196.026  Recovery = 96.29%
SiO2†                  22956.3      5379.6 µg/L        275.67      5379.6 ppb         275.67   5.12%
   QC value within limits for SiO2  Recovery = 100.60%
Si 251.611†            28747.0      2520.1 µg/L        125.18      2520.1 ppb         125.18   4.97%
   QC value within limits for Si 251.611  Recovery = 100.80%
Sn 189.927†              930.4      470.01 µg/L        72.133      470.01 ppb         72.133  15.35%
   QC value within limits for Sn 189.927  Recovery = 94.00%
Sr 421.552†           100695.9      511.11 µg/L         4.741      511.11 ppb          4.741   0.93%
   QC value within limits for Sr 421.552  Recovery = 102.22%
Ti 334.940†           172929.7      493.19 µg/L        37.806      493.19 ppb         37.806   7.67%
   QC value within limits for Ti 334.940  Recovery = 98.64%
Tl 190.801†              380.4      483.59 µg/L        47.811      483.59 ppb         47.811   9.89%
   QC value within limits for Tl 190.801  Recovery = 96.72%
U 409.014†              4682.2      459.89 µg/L        56.072      459.89 ppb         56.072  12.19%
   QC value within limits for U 409.014  Recovery = 91.98%
V 292.402†             35041.1      483.26 µg/L        50.228      483.26 ppb         50.228  10.39%
   QC value within limits for V 292.402  Recovery = 96.65%
Zn 213.857†            16743.0      481.48 µg/L        45.221      481.48 ppb         45.221   9.39%
   QC value within limits for Zn 213.857  Recovery = 96.30%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/27/2010 17:07:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	103076.3	103076.3	104	%			17:07:59
1	Al 396.153Radial†	-174.9	5.1	2.7890	µg/L	2.7890	ppb	17:07:59
1	Ca 317.933Radial†	373.6	-4.4	-1.6670	µg/L	-1.6670	ppb	17:08:19
1	Fe 238.204 Radial†	29.3	2.6	24.384	µg/L	24.384	ppb	17:08:19
1	K 766.490 Radial†	243.8	7.2	4.3018	µg/L	4.3018	ppb	17:07:59
1	Mg 279.077 IEC†	9.8	1.0	12.622	µg/L	12.622	ppb	17:08:19
1	Na 589.592 Radial†	288.8	30.6	13.142	µg/L	13.142	ppb	17:07:59
1	Sr 421.552†	135.5	-16.1	-0.0816	µg/L	-0.0816	ppb	17:07:59
1	Sc 361.383	1598146.2	1598146.2	100.36	%			17:09:21
1	Y 371.029	1118297.7	1118297.7	100.51	%			17:09:21
1	Ag 328.068†	278.2	55.4	0.5125	µg/L	0.5125	ppb	17:09:26
1	As 188.979†	3.8	2.2	4.3140	µg/L	4.3140	ppb	17:09:47
1	B 249.677†	1182.2	-160.3	-9.1233	µg/L	-9.1233	ppb	17:09:26
1	Ba 233.527†	-22.9	4.9	0.1375	µg/L	0.1375	ppb	17:09:47
1	Be 313.107†	-2133.2	98.5	0.0758	µg/L	0.0758	ppb	17:09:26
1	Cd 226.502†	-139.2	3.3	0.1013	µg/L	0.1013	ppb	17:09:47
1	Co 228.616†	7.3	-6.6	-0.3697	µg/L	-0.3697	ppb	17:09:47
1	Cr 267.716†	99.3	19.9	0.5585	µg/L	0.5585	ppb	17:09:47
1	Cu 324.752†	2633.6	-37.5	-0.2835	µg/L	-0.2835	ppb	17:09:26
1	Mn 257.610†	-480.5	84.3	0.3335	µg/L	0.3335	ppb	17:09:47
1	Mo 202.031†	16.3	11.8	1.4709	µg/L	1.4709	ppb	17:09:47
1	Ni 231.604†	299.3	8.5	0.6502	µg/L	0.6502	ppb	17:09:47
1	P 214.914†	32.7	9.4	23.739	µg/L	23.739	ppb	17:09:47
1	Pb 220.353†	41.0	-0.1	-0.0218	µg/L	-0.0218	ppb	17:09:47
1	S 181.975 Axial†	16.4	2.5	10.488	µg/L	10.488	ppb	17:09:47
1	Sb 206.836†	22.5	1.7	2.0420	µg/L	2.0420	ppb	17:09:47
1	Se 196.026†	16.2	1.1	1.5273	µg/L	1.5273	ppb	17:09:47
1	SiO2†	1431.3	53.7	12.591	µg/L	12.591	ppb	17:09:26
1	Si 251.611†	441.8	84.5	7.4047	µg/L	7.4047	ppb	17:09:47
1	Sn 189.927†	7.5	-0.9	-0.4745	µg/L	-0.4745	ppb	17:09:47
1	Ti 334.940†	74.6	60.6	0.1719	µg/L	0.1719	ppb	17:09:26
1	Tl 190.801†	-24.2	2.1	2.6915	µg/L	2.6915	ppb	17:09:47
1	U 409.014†	48.8	-66.1	-6.5115	µg/L	-6.5115	ppb	17:09:26
1	V 292.402†	-121.4	45.7	0.6294	µg/L	0.6294	ppb	17:09:26
1	Zn 213.857†	526.1	-3.9	-0.1185	µg/L	-0.1185	ppb	17:09:47
2	Sc RADIAL	101773.2	101773.2	103	%			17:08:25
2	Al 396.153Radial†	-175.0	2.9	1.5417	µg/L	1.5417	ppb	17:08:25
2	Ca 317.933Radial†	352.4	-20.3	-7.7812	µg/L	-7.7812	ppb	17:08:45
2	Fe 238.204 Radial†	29.6	3.3	30.487	µg/L	30.487	ppb	17:08:45
2	K 766.490 Radial†	210.2	-22.5	-13.402	µg/L	-13.402	ppb	17:08:25
2	Mg 279.077 IEC†	11.6	3.0	35.562	µg/L	35.562	ppb	17:08:45
2	Na 589.592 Radial†	192.7	-59.3	-25.457	µg/L	-25.457	ppb	17:08:25
2	Sr 421.552†	155.2	4.7	0.0238	µg/L	0.0238	ppb	17:08:25
2	Sc 361.383	1604189.7	1604189.7	100.74	%			17:09:53
2	Y 371.029	1122442.3	1122442.3	100.88	%			17:09:53
2	Ag 328.068†	200.1	-23.2	-0.2056	µg/L	-0.2056	ppb	17:09:58
2	As 188.979†	4.5	2.8	5.6136	µg/L	5.6136	ppb	17:10:19
2	B 249.677†	1151.1	-195.7	-11.136	µg/L	-11.136	ppb	17:09:58
2	Ba 233.527†	-3.0	24.8	0.6866	µg/L	0.6866	ppb	17:10:19
2	Be 313.107†	-1773.5	463.6	0.3567	µg/L	0.3567	ppb	17:09:58
2	Cd 226.502†	-122.5	20.3	0.6443	µg/L	0.6443	ppb	17:10:19
2	Co 228.616†	18.1	4.1	0.2276	µg/L	0.2276	ppb	17:10:19
2	Cr 267.716†	111.2	31.4	0.8824	µg/L	0.8824	ppb	17:10:19
2	Cu 324.752†	2655.8	-25.4	-0.1894	µg/L	-0.1894	ppb	17:09:58
2	Mn 257.610†	-350.7	215.0	0.8483	µg/L	0.8483	ppb	17:10:19
2	Mo 202.031†	20.3	15.6	1.9554	µg/L	1.9554	ppb	17:10:19
2	Ni 231.604†	305.4	13.4	1.0204	µg/L	1.0204	ppb	17:10:19
2	P 214.914†	23.2	-0.2	-0.4575	µg/L	-0.4575	ppb	17:10:19
2	Pb 220.353†	49.5	8.2	2.8064	µg/L	2.8064	ppb	17:10:19

2	S 181.975 Axial†	14.8	0.9	3.8851 µg/L	3.8851 ppb	17:10:19
2	Sb 206.836†	24.0	3.1	3.6811 µg/L	3.6811 ppb	17:10:19
2	Se 196.026†	8.3	-6.9	-9.2423 µg/L	-9.2423 ppb	17:10:19
2	SiO2†	1458.9	75.8	17.765 µg/L	17.765 ppb	17:09:58
2	Si 251.611†	461.6	102.5	8.9842 µg/L	8.9842 ppb	17:10:19
2	Sn 189.927†	5.2	-3.3	-1.6415 µg/L	-1.6415 ppb	17:10:19
2	Ti 334.940†	253.2	237.6	0.6751 µg/L	0.6751 ppb	17:09:58
2	Tl 190.801†	-22.4	4.0	5.0585 µg/L	5.0585 ppb	17:10:19
2	U 409.014†	22.2	-92.7	-9.1252 µg/L	-9.1252 ppb	17:09:58
2	V 292.402†	-120.8	46.7	0.6452 µg/L	0.6452 ppb	17:09:58
2	Zn 213.857†	537.7	5.6	0.1540 µg/L	0.1540 ppb	17:10:19
3	Sc RADIAL	99613.7	99613.7	101 %		17:08:51
3	Al 396.153Radial†	-161.1	13.0	7.1257 µg/L	7.1257 ppb	17:08:51
3	Ca 317.933Radial†	359.6	-5.8	-2.2174 µg/L	-2.2174 ppb	17:09:11
3	Fe 238.204 Radial†	27.7	2.0	18.900 µg/L	18.900 ppb	17:09:11
3	K 766.490 Radial†	269.5	40.8	24.330 µg/L	24.330 ppb	17:08:51
3	Mg 279.077 IEC†	7.7	-0.7	-8.0160 µg/L	-8.0160 ppb	17:09:11
3	Na 589.592 Radial†	236.1	-12.1	-5.2176 µg/L	-5.2176 ppb	17:08:51
3	Sr 421.552†	127.2	-19.8	-0.1004 µg/L	-0.1004 ppb	17:08:51
3	Sc 361.383	1595960.2	1595960.2	100.22 %		17:10:24
3	Y 371.029	1117558.9	1117558.9	100.44 %		17:10:24
3	Ag 328.068†	303.2	80.8	0.7464 µg/L	0.7464 ppb	17:10:30
3	As 188.979†	3.0	1.4	2.7646 µg/L	2.7646 ppb	17:10:50
3	B 249.677†	1163.0	-177.8	-10.115 µg/L	-10.115 ppb	17:10:30
3	Ba 233.527†	12.6	40.3	1.1176 µg/L	1.1176 ppb	17:10:50
3	Be 313.107†	-883.3	1342.7	1.0333 µg/L	1.0333 ppb	17:10:30
3	Cd 226.502†	-110.1	32.0	1.0172 µg/L	1.0172 ppb	17:10:50
3	Co 228.616†	31.5	17.5	0.9717 µg/L	0.9717 ppb	17:10:50
3	Cr 267.716†	129.4	50.1	1.4069 µg/L	1.4069 ppb	17:10:50
3	Cu 324.752†	2745.1	77.2	0.5963 µg/L	0.5963 ppb	17:10:30
3	Mn 257.610†	-166.9	396.6	1.5676 µg/L	1.5676 ppb	17:10:50
3	Mo 202.031†	17.9	13.3	1.6647 µg/L	1.6647 ppb	17:10:50
3	Ni 231.604†	308.3	17.9	1.3616 µg/L	1.3616 ppb	17:10:50
3	P 214.914†	30.0	6.7	16.974 µg/L	16.974 ppb	17:10:50
3	Pb 220.353†	48.7	7.7	2.6237 µg/L	2.6237 ppb	17:10:50
3	S 181.975 Axial†	15.1	1.3	5.2053 µg/L	5.2053 ppb	17:10:50
3	Sb 206.836†	27.4	6.6	7.8322 µg/L	7.8322 ppb	17:10:50
3	Se 196.026†	17.1	2.0	2.7545 µg/L	2.7545 ppb	17:10:50
3	SiO2†	1522.5	146.7	34.374 µg/L	34.374 ppb	17:10:30
3	Si 251.611†	534.6	177.6	15.572 µg/L	15.572 ppb	17:10:50
3	Sn 189.927†	6.4	-2.1	-1.0611 µg/L	-1.0611 ppb	17:10:50
3	Ti 334.940†	585.4	570.3	1.6283 µg/L	1.6283 ppb	17:10:30
3	Tl 190.801†	-26.9	-0.6	-0.7259 µg/L	-0.7259 ppb	17:10:50
3	U 409.014†	150.1	35.1	3.4502 µg/L	3.4502 ppb	17:10:30
3	V 292.402†	-92.9	73.9	1.0287 µg/L	1.0287 ppb	17:10:30
3	Zn 213.857†	565.4	36.0	1.0362 µg/L	1.0362 ppb	17:10:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1599432.0	100.44	%	0.268				0.27%
Sc RADIAL	101487.7	103	%	1.8				1.72%
Y 371.029	1119433.0	100.61	%	0.237				0.24%
Ag 328.068†	37.7	0.3511	µg/L	0.49609	0.3511	ppb	0.49609	141.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.0	3.8188	µg/L	2.93097	3.8188	ppb	2.93097	76.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	4.2307	µg/L	1.42632	4.2307	ppb	1.42632	33.71%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-177.9	-10.125	µg/L	1.0065	-10.125	ppb	1.0065	9.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.3	0.6472	µg/L	0.49121	0.6472	ppb	0.49121	75.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	634.9	0.4886	µg/L	0.49220	0.4886	ppb	0.49220	100.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-10.2	-3.8885	µg/L	3.38236	-3.8885	ppb	3.38236	86.98%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	18.5	0.5876	µg/L	0.46058	0.5876	ppb	0.46058	78.38%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.0	0.2765	µg/L	0.67206	0.2765	ppb	0.67206	243.04%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                33.8      0.9492 µg/L       0.42813      0.9492 ppb        0.42813  45.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.8      0.0411 µg/L       0.48311      0.0411 ppb        0.48311 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.6      24.590 µg/L        5.7962      24.590 ppb         5.7962  23.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           8.5      5.0766 µg/L      18.87784      5.0766 ppb       18.87784 371.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      13.389 µg/L       21.7992      13.389 ppb        21.7992 162.81%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               232.0      0.9165 µg/L       0.61985      0.9165 ppb        0.61985  67.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.6      1.6970 µg/L       0.24382      1.6970 ppb        0.24382  14.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -13.6     -5.8441 µg/L      19.30722     -5.8441 ppb       19.30722 330.37%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.3      1.0107 µg/L       0.35583      1.0107 ppb        0.35583  35.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.3      13.419 µg/L       12.4841      13.419 ppb        12.4841  93.04%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.2      1.8028 µg/L       1.58273      1.8028 ppb        1.58273  87.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.6      6.5261 µg/L       3.49398      6.5261 ppb        3.49398  53.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.8      4.5184 µg/L       2.98450      4.5184 ppb        2.98450  66.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.3     -1.6535 µg/L       6.60068     -1.6535 ppb        6.60068 399.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      92.1      21.577 µg/L       11.3808      21.577 ppb        11.3808  52.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               121.5      10.653 µg/L        4.3318      10.653 ppb         4.3318  40.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.1     -1.0591 µg/L       0.58350     -1.0591 ppb        0.58350  55.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -10.4     -0.0527 µg/L       0.06692     -0.0527 ppb        0.06692 126.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               289.5      0.8251 µg/L       0.73970      0.8251 ppb        0.73970  89.65%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.9      2.3414 µg/L       2.90803      2.3414 ppb        2.90803 124.20%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -41.2     -4.0622 µg/L       6.63590     -4.0622 ppb        6.63590 163.36%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 55.4      0.7677 µg/L       0.22611      0.7677 ppb        0.22611  29.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.6      0.3572 µg/L       0.60359      0.3572 ppb        0.60359 168.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/27/2010 17:39:06 **Plasma On Time:** 2/8/2010 03:37:33
Logged In Analyst: optima **Technique:** ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022710A.SIF
Batch ID:
Results Data Set: 022710B
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 7
Sample ID: CCV **Date Collected:** 2/27/2010 17:39:06
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	103657.3	103657.3	105	%			17:39:45
1	Al 396.153Radial†	9443.3	9180.9	5039.4	µg/L	5039.4	ppb	17:39:45
1	Ca 317.933Radial†	14448.1	13419.2	5137.0	µg/L	5137.0	ppb	17:39:45
1	Fe 238.204 Radial†	589.7	537.1	5012.2	µg/L	5012.2	ppb	17:40:06
1	K 766.490 Radial†	8853.2	8218.3	4901.1	µg/L	4901.1	ppb	17:39:45
1	Mg 279.077 IEC†	455.2	425.9	5129.5	µg/L	5129.5	ppb	17:40:06
1	Na 589.592 Radial†	23986.1	22633.7	9724.3	µg/L	9724.3	ppb	17:39:45
1	Sr 421.552†	98088.6	93419.8	474.18	µg/L	474.18	ppb	17:39:45
1	Sc 361.383	1600913.7	1600913.7	100.53	%			17:41:08
1	Y 371.029	1115019.1	1115019.1	100.21	%			17:41:08
1	Ag 328.068†	56010.9	55491.5	511.09	µg/L	511.09	ppb	17:41:14
1	As 188.979†	273.0	269.9	533.85	µg/L	533.85	ppb	17:41:34
1	B 249.677†	10135.7	8743.6	495.23	µg/L	495.23	ppb	17:41:14
1	Ba 233.527†	18959.7	18886.7	523.55	µg/L	523.55	ppb	17:41:14
1	Be 313.107†	674992.7	673630.1	518.52	µg/L	518.52	ppb	17:41:08
1	Cd 226.502†	16421.6	16476.2	523.74	µg/L	523.74	ppb	17:41:14
1	Co 228.616†	9546.7	9482.0	527.98	µg/L	527.98	ppb	17:41:14
1	Cr 267.716†	18957.2	18777.4	527.85	µg/L	527.85	ppb	17:41:14
1	Cu 324.752†	70381.9	67346.2	517.79	µg/L	517.79	ppb	17:41:14
1	Mn 257.610†	132653.4	132511.6	523.10	µg/L	523.10	ppb	17:41:14
1	Mo 202.031†	4340.4	4312.9	539.44	µg/L	539.44	ppb	17:41:34
1	Ni 231.604†	7620.0	7289.8	553.16	µg/L	553.16	ppb	17:41:14
1	P 214.914†	1085.9	1056.8	2628.6	µg/L	2628.6	ppb	17:41:34
1	Pb 220.353†	1615.4	1565.9	535.64	µg/L	535.64	ppb	17:41:34
1	S 181.975 Axial†	269.1	253.9	1057.1	µg/L	1057.1	ppb	17:41:34
1	Sb 206.836†	469.7	446.5	530.91	µg/L	530.91	ppb	17:41:34
1	Se 196.026†	414.4	397.1	549.46	µg/L	549.46	ppb	17:41:34
1	SiO2†	25264.5	23757.9	5567.5	µg/L	5567.5	ppb	17:41:14
1	Si 251.611†	30217.4	29701.1	2603.7	µg/L	2603.7	ppb	17:41:14
1	Sn 189.927†	1087.1	1072.9	541.92	µg/L	541.92	ppb	17:41:34
1	Ti 334.940†	181654.1	180675.1	515.31	µg/L	515.31	ppb	17:41:08
1	Tl 190.801†	396.1	420.3	533.96	µg/L	533.96	ppb	17:41:34
1	U 409.014†	5379.5	5236.2	514.50	µg/L	514.50	ppb	17:41:14
1	V 292.402†	38303.8	38266.8	527.94	µg/L	527.94	ppb	17:41:14
1	Zn 213.857†	18816.0	18187.9	523.09	µg/L	523.09	ppb	17:41:14
2	Sc RADIAL	103057.3	103057.3	104	%			17:40:11
2	Al 396.153Radial†	9392.1	9184.2	5041.5	µg/L	5041.5	ppb	17:40:11
2	Ca 317.933Radial†	14394.7	13448.2	5148.1	µg/L	5148.1	ppb	17:40:11
2	Fe 238.204 Radial†	593.5	544.0	5076.2	µg/L	5076.2	ppb	17:40:31
2	K 766.490 Radial†	8770.4	8188.0	4883.0	µg/L	4883.0	ppb	17:40:11
2	Mg 279.077 IEC†	463.7	436.6	5258.5	µg/L	5258.5	ppb	17:40:31
2	Na 589.592 Radial†	24038.0	22816.6	9802.9	µg/L	9802.9	ppb	17:40:11
2	Sr 421.552†	97820.9	93707.6	475.64	µg/L	475.64	ppb	17:40:11
2	Sc 361.383	1611740.9	1611740.9	101.21	%			17:41:40
2	Y 371.029	1120443.8	1120443.8	100.70	%			17:41:40
2	Ag 328.068†	56019.3	55125.5	507.72	µg/L	507.72	ppb	17:41:46
2	As 188.979†	275.3	270.3	534.74	µg/L	534.74	ppb	17:42:06

2	B 249.677†	10150.7	8690.7	492.17 µg/L	492.17 ppb	17:41:46
2	Ba 233.527†	18884.1	18685.3	517.97 µg/L	517.97 ppb	17:41:46
2	Be 313.107†	670855.1	665031.8	511.91 µg/L	511.91 ppb	17:41:40
2	Cd 226.502†	16328.5	16274.5	517.32 µg/L	517.32 ppb	17:41:46
2	Co 228.616†	9516.6	9388.5	522.77 µg/L	522.77 ppb	17:41:46
2	Cr 267.716†	18748.3	18444.4	518.49 µg/L	518.49 ppb	17:41:46
2	Cu 324.752†	70181.6	66678.0	512.67 µg/L	512.67 ppb	17:41:46
2	Mn 257.610†	131773.3	130755.7	516.17 µg/L	516.17 ppb	17:41:46
2	Mo 202.031†	4248.2	4192.8	524.42 µg/L	524.42 ppb	17:42:06
2	Ni 231.604†	7600.6	7219.7	547.84 µg/L	547.84 ppb	17:41:46
2	P 214.914†	1071.1	1035.0	2573.6 µg/L	2573.6 ppb	17:42:06
2	Pb 220.353†	1596.8	1536.7	525.66 µg/L	525.66 ppb	17:42:06
2	S 181.975 Axial†	271.0	254.0	1057.5 µg/L	1057.5 ppb	17:42:06
2	Sb 206.836†	461.0	434.7	516.85 µg/L	516.85 ppb	17:42:06
2	Se 196.026†	401.1	381.2	528.11 µg/L	528.11 ppb	17:42:06
2	SiO2†	25279.8	23604.2	5531.5 µg/L	5531.5 ppb	17:41:46
2	Si 251.611†	30238.0	29519.5	2587.8 µg/L	2587.8 ppb	17:41:46
2	Sn 189.927†	1071.5	1050.2	530.48 µg/L	530.48 ppb	17:42:06
2	Ti 334.940†	180840.6	178657.6	509.55 µg/L	509.55 ppb	17:41:40
2	Tl 190.801†	388.6	410.2	521.21 µg/L	521.21 ppb	17:42:06
2	U 409.014†	5314.5	5136.0	504.62 µg/L	504.62 ppb	17:41:46
2	V 292.402†	38248.5	37956.3	523.56 µg/L	523.56 ppb	17:41:46
2	Zn 213.857†	18762.9	18009.7	517.95 µg/L	517.95 ppb	17:41:46
3	Sc RADIAL	101695.2	101695.2	103 %		17:40:37
3	Al 396.153Radial†	9672.0	9577.0	5259.3 µg/L	5259.3 ppb	17:40:37
3	Ca 317.933Radial†	14787.8	14015.4	5365.2 µg/L	5365.2 ppb	17:40:37
3	Fe 238.204 Radial†	601.8	559.6	5220.9 µg/L	5220.9 ppb	17:40:57
3	K 766.490 Radial†	8996.4	8520.5	5081.3 µg/L	5081.3 ppb	17:40:37
3	Mg 279.077 IEC†	467.8	446.5	5376.0 µg/L	5376.0 ppb	17:40:57
3	Na 589.592 Radial†	24625.2	23696.5	10181 µg/L	10181 ppb	17:40:37
3	Sr 421.552†	100630.8	97696.8	495.89 µg/L	495.89 ppb	17:40:37
3	Sc 361.383	1621441.3	1621441.3	101.82 %		17:42:12
3	Y 371.029	1128126.2	1128126.2	101.39 %		17:42:12
3	Ag 328.068†	52374.9	51215.3	471.61 µg/L	471.61 ppb	17:42:18
3	As 188.979†	233.3	227.5	449.70 µg/L	449.70 ppb	17:42:38
3	B 249.677†	9487.6	7979.5	451.57 µg/L	451.57 ppb	17:42:18
3	Ba 233.527†	17167.5	16887.8	468.13 µg/L	468.13 ppb	17:42:18
3	Be 313.107†	624579.7	615619.7	473.87 µg/L	473.87 ppb	17:42:12
3	Cd 226.502†	14834.6	14710.9	467.53 µg/L	467.53 ppb	17:42:18
3	Co 228.616†	8560.1	8392.9	467.28 µg/L	467.28 ppb	17:42:18
3	Cr 267.716†	16516.0	16141.2	453.75 µg/L	453.75 ppb	17:42:18
3	Cu 324.752†	63658.5	59856.9	460.35 µg/L	460.35 ppb	17:42:18
3	Mn 257.610†	118786.7	117222.8	462.74 µg/L	462.74 ppb	17:42:18
3	Mo 202.031†	3597.6	3528.6	441.39 µg/L	441.39 ppb	17:42:38
3	Ni 231.604†	6844.7	6432.5	488.11 µg/L	488.11 ppb	17:42:18
3	P 214.914†	927.6	887.8	2204.6 µg/L	2204.6 ppb	17:42:38
3	Pb 220.353†	1402.2	1336.1	457.05 µg/L	457.05 ppb	17:42:38
3	S 181.975 Axial†	238.3	220.2	917.09 µg/L	917.09 ppb	17:42:38
3	Sb 206.836†	403.2	375.3	445.94 µg/L	445.94 ppb	17:42:38
3	Se 196.026†	361.8	340.3	473.15 µg/L	473.15 ppb	17:42:38
3	SiO2†	23400.2	21608.7	5063.9 µg/L	5063.9 ppb	17:42:18
3	Si 251.611†	27935.9	27080.0	2373.9 µg/L	2373.9 ppb	17:42:18
3	Sn 189.927†	883.2	859.0	433.95 µg/L	433.95 ppb	17:42:38
3	Ti 334.940†	167268.9	164259.9	468.45 µg/L	468.45 ppb	17:42:12
3	Tl 190.801†	349.9	369.9	470.03 µg/L	470.03 ppb	17:42:38
3	U 409.014†	4767.9	4567.8	448.65 µg/L	448.65 ppb	17:42:18
3	V 292.402†	34200.0	33754.2	465.42 µg/L	465.42 ppb	17:42:18
3	Zn 213.857†	16964.0	16132.1	463.89 µg/L	463.89 ppb	17:42:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1611365.3	101.19	%	0.645				0.64%
Sc RADIAL	102803.3	104	%	1.0				0.98%
Y 371.029	1121196.4	100.77	%	0.592				0.59%
Ag 328.068†	53944.1	496.81	µg/L	21.886	496.81	ppb	21.886	4.41%
QC value within limits for Ag 328.068 Recovery = 99.36%								
Al 396.153Radial†	9314.0	5113.4	µg/L	126.36	5113.4	ppb	126.36	2.47%
QC value within limits for Al 396.153Radial Recovery = 102.27%								
As 188.979†	255.9	506.10	µg/L	48.842	506.10	ppb	48.842	9.65%

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   QC value within limits for As 188.979  Recovery = 101.22%
B 249.677†              8471.2      479.65 µg/L        24.373      479.65 ppb         24.373   5.08%
   QC value within limits for B 249.677  Recovery = 95.93%
Ba 233.527†            18153.3      503.22 µg/L        30.515      503.22 ppb         30.515   6.06%
   QC value within limits for Ba 233.527  Recovery = 100.64%
Be 313.107†           651427.2      501.43 µg/L        24.098      501.43 ppb         24.098   4.81%
   QC value within limits for Be 313.107  Recovery = 100.29%
Ca 317.933Radial†      13627.6      5216.8 µg/L        128.69      5216.8 ppb         128.69   2.47%
   QC value within limits for Ca 317.933Radial  Recovery = 104.34%
Cd 226.502†            15820.5      502.86 µg/L        30.764      502.86 ppb         30.764   6.12%
   QC value within limits for Cd 226.502  Recovery = 100.57%
Co 228.616†             9087.8      506.01 µg/L        33.645      506.01 ppb         33.645   6.65%
   QC value within limits for Co 228.616  Recovery = 101.20%
Cr 267.716†            17787.7      500.03 µg/L        40.352      500.03 ppb         40.352   8.07%
   QC value within limits for Cr 267.716  Recovery = 100.01%
Cu 324.752†            64627.0      496.94 µg/L        31.787      496.94 ppb         31.787   6.40%
   QC value within limits for Cu 324.752  Recovery = 99.39%
Fe 238.204 Radial†       546.9      5103.1 µg/L        106.93      5103.1 ppb         106.93   2.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.06%
K 766.490 Radial†       8308.9      4955.1 µg/L        109.63      4955.1 ppb         109.63   2.21%
   QC value within limits for K 766.490 Radial  Recovery = 99.10%
Mg 279.077 IEC†          436.3      5254.7 µg/L        123.30      5254.7 ppb         123.30   2.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.09%
Mn 257.610†           126830.1      500.67 µg/L        33.031      500.67 ppb         33.031   6.60%
   QC value within limits for Mn 257.610  Recovery = 100.13%
Mo 202.031†             4011.4      501.75 µg/L        52.809      501.75 ppb         52.809  10.52%
   QC value within limits for Mo 202.031  Recovery = 100.35%
Na 589.592 Radial†     23048.9      9902.7 µg/L        244.13      9902.7 ppb         244.13   2.47%
   QC value within limits for Na 589.592 Radial  Recovery = 99.03%
Ni 231.604†             6980.7      529.71 µg/L        36.120      529.71 ppb         36.120   6.82%
   QC value within limits for Ni 231.604  Recovery = 105.94%
P 214.914†               993.2      2468.9 µg/L        230.59      2468.9 ppb         230.59   9.34%
   QC value within limits for P 214.914  Recovery = 98.76%
Pb 220.353†             1479.6      506.12 µg/L        42.785      506.12 ppb         42.785   8.45%
   QC value within limits for Pb 220.353  Recovery = 101.22%
S 181.975 Axial†         242.7      1010.6 µg/L         80.95      1010.6 ppb          80.95   8.01%
   QC value within limits for S 181.975 Axial  Recovery = 101.06%
Sb 206.836†              418.8      497.90 µg/L        45.544      497.90 ppb         45.544   9.15%
   QC value within limits for Sb 206.836  Recovery = 99.58%
Se 196.026†              372.8      516.91 µg/L        39.367      516.91 ppb         39.367   7.62%
   QC value within limits for Se 196.026  Recovery = 103.38%
SiO2†                  22990.3      5387.6 µg/L        280.95      5387.6 ppb         280.95   5.21%
   QC value within limits for SiO2  Recovery = 100.75%
Si 251.611†            28766.9      2521.8 µg/L        128.32      2521.8 ppb         128.32   5.09%
   QC value within limits for Si 251.611  Recovery = 100.87%
Sn 189.927†              994.0      502.12 µg/L        59.310      502.12 ppb         59.310  11.81%
   QC value within limits for Sn 189.927  Recovery = 100.42%
Sr 421.552†            94941.4      481.90 µg/L        12.134      481.90 ppb         12.134   2.52%
   QC value within limits for Sr 421.552  Recovery = 96.38%
Ti 334.940†           174530.9      497.77 µg/L        25.555      497.77 ppb         25.555   5.13%
   QC value within limits for Ti 334.940  Recovery = 99.55%
Tl 190.801†              400.1      508.40 µg/L        33.837      508.40 ppb         33.837   6.66%
   QC value within limits for Tl 190.801  Recovery = 101.68%
U 409.014†              4980.0      489.26 µg/L        35.513      489.26 ppb         35.513   7.26%
   QC value within limits for U 409.014  Recovery = 97.85%
V 292.402†             36659.1      505.64 µg/L        34.905      505.64 ppb         34.905   6.90%
   QC value within limits for V 292.402  Recovery = 101.13%
Zn 213.857†            17443.2      501.65 µg/L        32.796      501.65 ppb         32.796   6.54%
   QC value within limits for Zn 213.857  Recovery = 100.33%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/27/2010 17:42:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	99607.2	99607.2	101	%			17:43:20
1	Al 396.153Radial†	-185.3	-11.0	-6.0642	µg/L	-6.0642	ppb	17:43:20
1	Ca 317.933Radial†	355.1	-10.2	-3.9013	µg/L	-3.9013	ppb	17:43:41
1	Fe 238.204 Radial†	29.1	3.4	31.906	µg/L	31.906	ppb	17:43:41
1	K 766.490 Radial†	210.3	-17.9	-10.678	µg/L	-10.678	ppb	17:43:20
1	Mg 279.077 IEC†	9.4	1.0	12.016	µg/L	12.016	ppb	17:43:41
1	Na 589.592 Radial†	186.6	-61.2	-26.306	µg/L	-26.306	ppb	17:43:20
1	Sr 421.552†	152.9	5.7	0.0288	µg/L	0.0288	ppb	17:43:20
1	Sc 361.383	1598509.2	1598509.2	100.38	%			17:44:42
1	Y 371.029	1118606.4	1118606.4	100.54	%			17:44:42
1	Ag 328.068†	232.2	9.5	0.0901	µg/L	0.0901	ppb	17:44:48
1	As 188.979†	0.2	-1.5	-2.9029	µg/L	-2.9029	ppb	17:45:08
1	B 249.677†	1106.0	-236.5	-13.460	µg/L	-13.460	ppb	17:44:48
1	Ba 233.527†	-18.6	9.2	0.2552	µg/L	0.2552	ppb	17:45:08
1	Be 313.107†	-2133.8	98.4	0.0757	µg/L	0.0757	ppb	17:44:48
1	Cd 226.502†	-137.0	5.4	0.1705	µg/L	0.1705	ppb	17:45:08
1	Co 228.616†	20.7	6.7	0.3751	µg/L	0.3751	ppb	17:45:08
1	Cr 267.716†	98.7	19.3	0.5425	µg/L	0.5425	ppb	17:45:08
1	Cu 324.752†	2601.6	-70.1	-0.5318	µg/L	-0.5318	ppb	17:44:48
1	Mn 257.610†	-502.6	62.4	0.2476	µg/L	0.2476	ppb	17:45:08
1	Mo 202.031†	13.2	8.6	1.0810	µg/L	1.0810	ppb	17:45:08
1	Ni 231.604†	308.6	17.7	1.3472	µg/L	1.3472	ppb	17:45:08
1	P 214.914†	28.4	5.1	12.817	µg/L	12.817	ppb	17:45:08
1	Pb 220.353†	39.4	-1.7	-0.5837	µg/L	-0.5837	ppb	17:45:08
1	S 181.975 Axial†	21.7	7.8	32.390	µg/L	32.390	ppb	17:45:08
1	Sb 206.836†	22.1	1.2	1.4614	µg/L	1.4614	ppb	17:45:08
1	Se 196.026†	7.4	-7.7	-10.280	µg/L	-10.280	ppb	17:45:08
1	SiO2†	1385.4	7.7	1.8006	µg/L	1.8006	ppb	17:44:48
1	Si 251.611†	373.7	16.6	1.4516	µg/L	1.4516	ppb	17:45:08
1	Sn 189.927†	6.0	-2.4	-1.2290	µg/L	-1.2290	ppb	17:45:08
1	Ti 334.940†	101.2	87.0	0.2473	µg/L	0.2473	ppb	17:44:48
1	Tl 190.801†	-23.6	2.7	3.4150	µg/L	3.4150	ppb	17:45:08
1	U 409.014†	59.1	-55.8	-5.5024	µg/L	-5.5024	ppb	17:44:48
1	V 292.402†	-157.5	9.8	0.1382	µg/L	0.1382	ppb	17:44:48
1	Zn 213.857†	537.1	6.9	0.1938	µg/L	0.1938	ppb	17:45:08
2	Sc RADIAL	98877.5	98877.5	100.0	%			17:43:46
2	Al 396.153Radial†	-179.8	-6.9	-3.8080	µg/L	-3.8080	ppb	17:43:46
2	Ca 317.933Radial†	349.5	-13.2	-5.0571	µg/L	-5.0571	ppb	17:44:07
2	Fe 238.204 Radial†	28.7	3.2	30.236	µg/L	30.236	ppb	17:44:07
2	K 766.490 Radial†	172.2	-54.5	-32.497	µg/L	-32.497	ppb	17:43:46
2	Mg 279.077 IEC†	9.2	0.9	11.108	µg/L	11.108	ppb	17:44:07
2	Na 589.592 Radial†	204.2	-42.3	-18.163	µg/L	-18.163	ppb	17:43:46
2	Sr 421.552†	139.0	-7.0	-0.0357	µg/L	-0.0357	ppb	17:43:46
2	Sc 361.383	1605317.0	1605317.0	100.81	%			17:45:14
2	Y 371.029	1122340.0	1122340.0	100.87	%			17:45:14
2	Ag 328.068†	245.2	21.4	0.2017	µg/L	0.2017	ppb	17:45:19
2	As 188.979†	0.8	-0.8	-1.6043	µg/L	-1.6043	ppb	17:45:40
2	B 249.677†	1127.6	-219.7	-12.504	µg/L	-12.504	ppb	17:45:19
2	Ba 233.527†	-6.0	21.8	0.6044	µg/L	0.6044	ppb	17:45:40
2	Be 313.107†	-1915.3	324.2	0.2495	µg/L	0.2495	ppb	17:45:19
2	Cd 226.502†	-127.4	15.5	0.4897	µg/L	0.4897	ppb	17:45:40
2	Co 228.616†	18.3	4.2	0.2362	µg/L	0.2362	ppb	17:45:40
2	Cr 267.716†	112.2	32.2	0.9060	µg/L	0.9060	ppb	17:45:40
2	Cu 324.752†	2622.8	-60.0	-0.4550	µg/L	-0.4550	ppb	17:45:19
2	Mn 257.610†	-411.7	154.7	0.6120	µg/L	0.6120	ppb	17:45:40
2	Mo 202.031†	17.0	12.4	1.5459	µg/L	1.5459	ppb	17:45:40
2	Ni 231.604†	302.4	10.3	0.7817	µg/L	0.7817	ppb	17:45:40
2	P 214.914†	21.4	-2.0	-5.0203	µg/L	-5.0203	ppb	17:45:40
2	Pb 220.353†	47.1	5.8	1.9885	µg/L	1.9885	ppb	17:45:40

2	S 181.975 Axial†	16.3	2.4	10.077 µg/L	10.077 ppb	17:45:40
2	Sb 206.836†	20.9	-0.0	-0.0074 µg/L	-0.0074 ppb	17:45:40
2	Se 196.026†	20.4	5.1	7.0095 µg/L	7.0095 ppb	17:45:40
2	SiO2†	1396.6	13.0	3.0411 µg/L	3.0411 ppb	17:45:19
2	Si 251.611†	394.5	35.6	3.1222 µg/L	3.1222 ppb	17:45:40
2	Sn 189.927†	8.1	-0.5	-0.2298 µg/L	-0.2298 ppb	17:45:40
2	Ti 334.940†	100.3	85.7	0.2437 µg/L	0.2437 ppb	17:45:19
2	Tl 190.801†	-25.6	0.9	1.0903 µg/L	1.0903 ppb	17:45:40
2	U 409.014†	82.2	-33.2	-3.2711 µg/L	-3.2711 ppb	17:45:19
2	V 292.402†	-128.5	39.1	0.5449 µg/L	0.5449 ppb	17:45:19
2	Zn 213.857†	533.7	1.2	0.0314 µg/L	0.0314 ppb	17:45:40
3	Sc RADIAL	100675.8	100675.8	102 %		17:44:12
3	Al 396.153Radial†	-177.1	-1.0	-0.5743 µg/L	-0.5743 ppb	17:44:12
3	Ca 317.933Radial†	357.9	-11.2	-4.3017 µg/L	-4.3017 ppb	17:44:32
3	Fe 238.204 Radial†	28.7	2.8	25.670 µg/L	25.670 ppb	17:44:32
3	K 766.490 Radial†	275.0	43.4	25.909 µg/L	25.909 ppb	17:44:12
3	Mg 279.077 IEC†	9.1	0.6	7.4962 µg/L	7.4962 ppb	17:44:32
3	Na 589.592 Radial†	242.4	-8.4	-3.6027 µg/L	-3.6027 ppb	17:44:12
3	Sr 421.552†	156.1	7.2	0.0365 µg/L	0.0365 ppb	17:44:12
3	Sc 361.383	1614430.2	1614430.2	101.38 %		17:45:46
3	Y 371.029	1129180.6	1129180.6	101.49 %		17:45:46
3	Ag 328.068†	249.9	24.7	0.2340 µg/L	0.2340 ppb	17:45:51
3	As 188.979†	6.3	4.5	9.0132 µg/L	9.0132 ppb	17:46:12
3	B 249.677†	1120.9	-232.7	-13.238 µg/L	-13.238 ppb	17:45:51
3	Ba 233.527†	-0.6	27.1	0.7527 µg/L	0.7527 ppb	17:46:12
3	Be 313.107†	-1166.4	1073.5	0.8262 µg/L	0.8262 ppb	17:45:51
3	Cd 226.502†	-117.2	26.3	0.8333 µg/L	0.8333 ppb	17:46:12
3	Co 228.616†	31.6	17.3	0.9617 µg/L	0.9617 ppb	17:46:12
3	Cr 267.716†	114.5	33.9	0.9540 µg/L	0.9540 ppb	17:46:12
3	Cu 324.752†	2757.1	57.8	0.4483 µg/L	0.4483 ppb	17:45:51
3	Mn 257.610†	-312.2	255.2	1.0084 µg/L	1.0084 ppb	17:46:12
3	Mo 202.031†	17.3	12.5	1.5696 µg/L	1.5696 ppb	17:46:12
3	Ni 231.604†	312.3	18.4	1.3947 µg/L	1.3947 ppb	17:46:12
3	P 214.914†	28.4	4.8	11.958 µg/L	11.958 ppb	17:46:12
3	Pb 220.353†	48.7	7.1	2.4372 µg/L	2.4372 ppb	17:46:12
3	S 181.975 Axial†	18.4	4.4	18.165 µg/L	18.165 ppb	17:46:12
3	Sb 206.836†	19.8	-1.2	-1.4602 µg/L	-1.4602 ppb	17:46:12
3	Se 196.026†	9.9	-5.3	-7.0671 µg/L	-7.0671 ppb	17:46:12
3	SiO2†	1426.2	34.4	8.0543 µg/L	8.0543 ppb	17:45:51
3	Si 251.611†	446.7	84.9	7.4398 µg/L	7.4398 ppb	17:46:12
3	Sn 189.927†	5.0	-3.5	-1.7669 µg/L	-1.7669 ppb	17:46:12
3	Ti 334.940†	417.9	398.4	1.1364 µg/L	1.1364 ppb	17:45:51
3	Tl 190.801†	-28.5	-1.9	-2.3383 µg/L	-2.3383 ppb	17:46:12
3	U 409.014†	136.7	20.1	1.9728 µg/L	1.9728 ppb	17:45:51
3	V 292.402†	-97.9	70.0	0.9720 µg/L	0.9720 ppb	17:45:51
3	Zn 213.857†	568.4	32.5	0.9322 µg/L	0.9322 ppb	17:46:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1606085.5	100.86	%	0.502				0.50%
Sc RADIAL	99720.2	101	%	0.9				0.91%
Y 371.029	1123375.7	100.96	%	0.482				0.48%
Ag 328.068†	18.5	0.1753	µg/L	0.07551	0.1753	ppb	0.07551	43.08%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-3.4822	µg/L	2.75940	-3.4822	ppb	2.75940	79.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	1.5020	µg/L	6.53722	1.5020	ppb	6.53722	435.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-229.6	-13.067	µg/L	0.5003	-13.067	ppb	0.5003	3.83%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.4	0.5374	µg/L	0.25543	0.5374	ppb	0.25543	47.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	498.7	0.3838	µg/L	0.39288	0.3838	ppb	0.39288	102.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-11.5	-4.4200	µg/L	0.58691	-4.4200	ppb	0.58691	13.28%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.7	0.4978	µg/L	0.33148	0.4978	ppb	0.33148	66.59%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.4	0.5243	µg/L	0.38508	0.5243	ppb	0.38508	73.44%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              28.5      0.8008 µg/L       0.22501      0.8008 ppb        0.22501  28.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -24.1     -0.1795 µg/L       0.54502     -0.1795 ppb        0.54502 303.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        3.1      29.271 µg/L        3.2280      29.271 ppb         3.2280  11.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -9.7     -5.7553 µg/L      29.51257     -5.7553 ppb       29.51257 512.79%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.8      10.207 µg/L        2.3909      10.207 ppb         2.3909  23.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             157.4      0.6226 µg/L       0.38052      0.6226 ppb        0.38052  61.11%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.2      1.3988 µg/L       0.27551      1.3988 ppb        0.27551  19.70%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -37.3     -16.024 µg/L       11.5020     -16.024 ppb        11.5020  71.78%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              15.5      1.1745 µg/L       0.34105      1.1745 ppb        0.34105  29.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.6      6.5851 µg/L      10.05974      6.5851 ppb       10.05974 152.77%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.7      1.2807 µg/L       1.63008      1.2807 ppb        1.63008 127.28%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.9      20.211 µg/L       11.2960      20.211 ppb        11.2960  55.89%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.0     -0.0021 µg/L       1.46080     -0.0021 ppb        1.46080 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.6     -3.4458 µg/L       9.19588     -3.4458 ppb        9.19588 266.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    18.3      4.2987 µg/L       3.31108      4.2987 ppb        3.31108  77.03%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              45.7      4.0046 µg/L       3.09007      4.0046 ppb        3.09007  77.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.1     -1.0752 µg/L       0.78000     -1.0752 ppb        0.78000  72.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               1.9      0.0099 µg/L       0.03968      0.0099 ppb        0.03968 401.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             190.4      0.5425 µg/L       0.51436      0.5425 ppb        0.51436  94.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.7223 µg/L       2.89423      0.7223 ppb        2.89423 400.68%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -23.0     -2.2669 µg/L       3.83746     -2.2669 ppb        3.83746 169.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               39.6      0.5517 µg/L       0.41696      0.5517 ppb        0.41696  75.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              13.6      0.3858 µg/L       0.48016      0.3858 ppb        0.48016 124.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/27/2010 18:14:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	100927.0	100927.0	102	%			18:14:45
1	Al 396.153Radial†	9585.2	9563.5	5250.2	µg/L	5250.2	ppb	18:14:45
1	Ca 317.933Radial†	14138.3	13488.5	5163.5	µg/L	5163.5	ppb	18:15:05
1	Fe 238.204 Radial†	592.4	554.9	5177.8	µg/L	5177.8	ppb	18:15:05
1	K 766.490 Radial†	8805.4	8399.9	5009.4	µg/L	5009.4	ppb	18:14:45
1	Mg 279.077 IEC†	457.8	440.2	5301.8	µg/L	5301.8	ppb	18:15:05
1	Na 589.592 Radial†	24329.0	23588.5	10135	µg/L	10135	ppb	18:14:45
1	Sr 421.552†	99417.3	97252.6	493.64	µg/L	493.64	ppb	18:14:45
1	Sc 361.383	1606553.7	1606553.7	100.89	%			18:16:08
1	Y 371.029	1119907.1	1119907.1	100.65	%			18:16:08
1	Ag 328.068†	55293.0	54584.4	502.75	µg/L	502.75	ppb	18:16:14
1	As 188.979†	270.9	266.9	527.86	µg/L	527.86	ppb	18:16:34
1	B 249.677†	9984.0	8557.8	484.57	µg/L	484.57	ppb	18:16:14
1	Ba 233.527†	18546.6	18411.0	510.37	µg/L	510.37	ppb	18:16:14
1	Be 313.107†	660553.2	656960.7	505.69	µg/L	505.69	ppb	18:16:08
1	Cd 226.502†	16066.5	16066.9	510.70	µg/L	510.70	ppb	18:16:14
1	Co 228.616†	9365.9	9269.5	516.15	µg/L	516.15	ppb	18:16:14
1	Cr 267.716†	18651.6	18408.4	517.47	µg/L	517.47	ppb	18:16:14
1	Cu 324.752†	69468.9	66195.5	508.99	µg/L	508.99	ppb	18:16:14
1	Mn 257.610†	130092.4	129510.0	511.25	µg/L	511.25	ppb	18:16:14
1	Mo 202.031†	4248.5	4206.6	526.16	µg/L	526.16	ppb	18:16:34
1	Ni 231.604†	7449.1	7093.8	538.29	µg/L	538.29	ppb	18:16:14
1	P 214.914†	1060.8	1028.2	2556.8	µg/L	2556.8	ppb	18:16:34
1	Pb 220.353†	1589.3	1534.4	524.90	µg/L	524.90	ppb	18:16:34
1	S 181.975 Axial†	264.4	248.2	1033.6	µg/L	1033.6	ppb	18:16:34
1	Sb 206.836†	454.1	429.3	510.57	µg/L	510.57	ppb	18:16:34
1	Se 196.026†	391.8	373.3	517.69	µg/L	517.69	ppb	18:16:34
1	SiO2†	25024.7	23431.9	5491.1	µg/L	5491.1	ppb	18:16:14
1	Si 251.611†	29903.3	29284.2	2567.2	µg/L	2567.2	ppb	18:16:14
1	Sn 189.927†	1063.1	1045.3	528.01	µg/L	528.01	ppb	18:16:34
1	Ti 334.940†	179055.2	177464.8	506.14	µg/L	506.14	ppb	18:16:08
1	Tl 190.801†	381.7	404.7	514.23	µg/L	514.23	ppb	18:16:34
1	U 409.014†	5297.7	5136.3	504.64	µg/L	504.64	ppb	18:16:14
1	V 292.402†	37708.4	37543.0	517.94	µg/L	517.94	ppb	18:16:14
1	Zn 213.857†	18461.7	17771.0	511.08	µg/L	511.08	ppb	18:16:14
2	Sc RADIAL	101497.7	101497.7	103	%			18:15:11
2	Al 396.153Radial†	9551.2	9477.7	5203.2	µg/L	5203.2	ppb	18:15:11
2	Ca 317.933Radial†	14052.3	13326.9	5101.6	µg/L	5101.6	ppb	18:15:31
2	Fe 238.204 Radial†	589.6	548.9	5122.2	µg/L	5122.2	ppb	18:15:31
2	K 766.490 Radial†	8907.5	8450.9	5039.8	µg/L	5039.8	ppb	18:15:11
2	Mg 279.077 IEC†	453.7	433.7	5222.8	µg/L	5222.8	ppb	18:15:31
2	Na 589.592 Radial†	24461.6	23583.7	10132	µg/L	10132	ppb	18:15:11
2	Sr 421.552†	99797.5	97075.4	492.74	µg/L	492.74	ppb	18:15:11
2	Sc 361.383	1612597.4	1612597.4	101.27	%			18:16:41
2	Y 371.029	1123035.2	1123035.2	100.93	%			18:16:41
2	Ag 328.068†	55241.6	54328.1	500.38	µg/L	500.38	ppb	18:16:47
2	As 188.979†	256.7	251.8	498.00	µg/L	498.00	ppb	18:17:07
2	B 249.677†	9935.2	8472.5	479.73	µg/L	479.73	ppb	18:16:47
2	Ba 233.527†	18517.3	18313.1	507.66	µg/L	507.66	ppb	18:16:47
2	Be 313.107†	656537.2	650541.1	500.75	µg/L	500.75	ppb	18:16:41
2	Cd 226.502†	16011.9	15953.3	507.09	µg/L	507.09	ppb	18:16:47
2	Co 228.616†	9305.9	9175.4	510.89	µg/L	510.89	ppb	18:16:47
2	Cr 267.716†	18468.0	18157.7	510.43	µg/L	510.43	ppb	18:16:47
2	Cu 324.752†	69416.7	65885.9	506.60	µg/L	506.60	ppb	18:16:47
2	Mn 257.610†	130296.8	129228.6	510.14	µg/L	510.14	ppb	18:16:47
2	Mo 202.031†	4166.0	4109.3	513.99	µg/L	513.99	ppb	18:17:07
2	Ni 231.604†	7401.3	7019.0	532.61	µg/L	532.61	ppb	18:16:47
2	P 214.914†	1038.5	1002.2	2491.0	µg/L	2491.0	ppb	18:17:07
2	Pb 220.353†	1568.3	1507.8	515.77	µg/L	515.77	ppb	18:17:07

2	S 181.975 Axial†	257.4	240.4	1000.9 µg/L	1000.9 ppb	18:17:07
2	Sb 206.836†	449.5	423.1	503.08 µg/L	503.08 ppb	18:17:07
2	Se 196.026†	395.9	375.9	521.09 µg/L	521.09 ppb	18:17:07
2	SiO2†	25054.9	23368.8	5476.3 µg/L	5476.3 ppb	18:16:47
2	Si 251.611†	29962.6	29231.7	2562.6 µg/L	2562.6 ppb	18:16:47
2	Sn 189.927†	1044.3	1022.8	516.61 µg/L	516.61 ppb	18:17:07
2	Ti 334.940†	179087.8	176831.8	504.34 µg/L	504.34 ppb	18:16:41
2	Tl 190.801†	385.1	406.6	516.63 µg/L	516.63 ppb	18:17:07
2	U 409.014†	5255.1	5074.5	498.57 µg/L	498.57 ppb	18:16:47
2	V 292.402†	37664.1	37359.1	515.32 µg/L	515.32 ppb	18:16:47
2	Zn 213.857†	18377.0	17618.8	506.71 µg/L	506.71 ppb	18:16:47
3	Sc RADIAL	101517.9	101517.9	103 %		18:15:37
3	Al 396.153Radial†	9484.2	9410.5	5168.0 µg/L	5168.0 ppb	18:15:37
3	Ca 317.933Radial†	14075.8	13347.0	5109.4 µg/L	5109.4 ppb	18:15:57
3	Fe 238.204 Radial†	598.5	557.5	5200.2 µg/L	5200.2 ppb	18:15:57
3	K 766.490 Radial†	8760.2	8305.7	4953.2 µg/L	4953.2 ppb	18:15:37
3	Mg 279.077 IEC†	451.5	431.4	5194.6 µg/L	5194.6 ppb	18:15:57
3	Na 589.592 Radial†	24235.9	23359.1	10036 µg/L	10036 ppb	18:15:37
3	Sr 421.552†	98789.7	96074.5	487.66 µg/L	487.66 ppb	18:15:37
3	Sc 361.383	1620660.8	1620660.8	101.77 %		18:17:14
3	Y 371.029	1130393.9	1130393.9	101.59 %		18:17:14
3	Ag 328.068†	51389.9	50272.2	462.90 µg/L	462.90 ppb	18:17:20
3	As 188.979†	224.8	219.3	433.50 µg/L	433.50 ppb	18:17:40
3	B 249.677†	9230.6	7731.4	437.45 µg/L	437.45 ppb	18:17:20
3	Ba 233.527†	16697.8	16434.5	455.56 µg/L	455.56 ppb	18:17:20
3	Be 313.107†	608431.1	600048.0	461.88 µg/L	461.88 ppb	18:17:14
3	Cd 226.502†	14277.9	14170.9	450.36 µg/L	450.36 ppb	18:17:20
3	Co 228.616†	8227.0	8069.7	449.25 µg/L	449.25 ppb	18:17:20
3	Cr 267.716†	15897.7	15541.5	436.89 µg/L	436.89 ppb	18:17:20
3	Cu 324.752†	62105.7	58361.3	448.87 µg/L	448.87 ppb	18:17:20
3	Mn 257.610†	116042.8	114582.9	452.33 µg/L	452.33 ppb	18:17:20
3	Mo 202.031†	3493.0	3427.6	428.75 µg/L	428.75 ppb	18:17:40
3	Ni 231.604†	6618.1	6213.1	471.47 µg/L	471.47 ppb	18:17:20
3	P 214.914†	899.5	860.6	2136.7 µg/L	2136.7 ppb	18:17:40
3	Pb 220.353†	1360.3	1295.6	443.20 µg/L	443.20 ppb	18:17:40
3	S 181.975 Axial†	235.5	217.6	906.12 µg/L	906.12 ppb	18:17:40
3	Sb 206.836†	391.5	364.0	432.54 µg/L	432.54 ppb	18:17:40
3	Se 196.026†	352.2	331.0	460.65 µg/L	460.65 ppb	18:17:40
3	SiO2†	23195.7	21418.9	5019.4 µg/L	5019.4 ppb	18:17:20
3	Si 251.611†	27668.4	26830.3	2352.0 µg/L	2352.0 ppb	18:17:20
3	Sn 189.927†	863.2	839.7	424.21 µg/L	424.21 ppb	18:17:40
3	Ti 334.940†	166692.4	163772.6	467.07 µg/L	467.07 ppb	18:17:14
3	Tl 190.801†	344.3	364.6	463.35 µg/L	463.35 ppb	18:17:40
3	U 409.014†	4597.8	4403.0	432.44 µg/L	432.44 ppb	18:17:20
3	V 292.402†	33211.7	32799.3	452.24 µg/L	452.24 ppb	18:17:20
3	Zn 213.857†	16411.7	15597.4	448.51 µg/L	448.51 ppb	18:17:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1613270.6	101.31	%	0.444				0.44%
Sc RADIAL	101314.2	102	%	0.3				0.33%
Y 371.029	1124445.4	101.06	%	0.484				0.48%
Ag 328.068†	53061.6	488.68	µg/L	22.353	488.68	ppb	22.353	4.57%
QC value within limits for Ag 328.068 Recovery = 97.74%								
Al 396.153Radial†	9483.9	5207.2	µg/L	41.22	5207.2	ppb	41.22	0.79%
QC value within limits for Al 396.153Radial Recovery = 104.14%								
As 188.979†	246.0	486.46	µg/L	48.228	486.46	ppb	48.228	9.91%
QC value within limits for As 188.979 Recovery = 97.29%								
B 249.677†	8253.9	467.25	µg/L	25.919	467.25	ppb	25.919	5.55%
QC value within limits for B 249.677 Recovery = 93.45%								
Ba 233.527†	17719.5	491.19	µg/L	30.890	491.19	ppb	30.890	6.29%
QC value within limits for Ba 233.527 Recovery = 98.24%								
Be 313.107†	635849.9	489.44	µg/L	23.994	489.44	ppb	23.994	4.90%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	13387.5	5124.8	µg/L	33.71	5124.8	ppb	33.71	0.66%
QC value within limits for Ca 317.933Radial Recovery = 102.50%								
Cd 226.502†	15397.1	489.38	µg/L	33.844	489.38	ppb	33.844	6.92%
QC value within limits for Cd 226.502 Recovery = 97.88%								
Co 228.616†	8838.2	492.10	µg/L	37.197	492.10	ppb	37.197	7.56%

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   QC value within limits for Co 228.616  Recovery = 98.42%
Cr 267.716†            17369.2      488.27 µg/L        44.629      488.27 ppb         44.629   9.14%
   QC value within limits for Cr 267.716  Recovery = 97.65%
Cu 324.752†            63480.9      488.16 µg/L        34.042      488.16 ppb         34.042   6.97%
   QC value within limits for Cu 324.752  Recovery = 97.63%
Fe 238.204 Radial†       553.8      5166.7 µg/L         40.19      5166.7 ppb          40.19   0.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.33%
K 766.490 Radial†       8385.5      5000.8 µg/L         43.94      5000.8 ppb          43.94   0.88%
   QC value within limits for K 766.490 Radial  Recovery = 100.02%
Mg 279.077 IEC†          435.1      5239.7 µg/L         55.57      5239.7 ppb          55.57   1.06%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.79%
Mn 257.610†           124440.5      491.24 µg/L        33.704      491.24 ppb         33.704   6.86%
   QC value within limits for Mn 257.610  Recovery = 98.25%
Mo 202.031†             3914.5      489.63 µg/L        53.073      489.63 ppb         53.073  10.84%
   QC value within limits for Mo 202.031  Recovery = 97.93%
Na 589.592 Radial†     23510.5       10101 µg/L          56.3       10101 ppb           56.3   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 101.01%
Ni 231.604†             6775.3      514.12 µg/L        37.049      514.12 ppb         37.049   7.21%
   QC value within limits for Ni 231.604  Recovery = 102.82%
P 214.914†               963.7      2394.8 µg/L        225.94      2394.8 ppb         225.94   9.43%
   QC value within limits for P 214.914  Recovery = 95.79%
Pb 220.353†             1445.9      494.62 µg/L        44.766      494.62 ppb         44.766   9.05%
   QC value within limits for Pb 220.353  Recovery = 98.92%
S 181.975 Axial†         235.4      980.22 µg/L        66.224      980.22 ppb         66.224   6.76%
   QC value within limits for S 181.975 Axial  Recovery = 98.02%
Sb 206.836†              405.5      482.06 µg/L        43.052      482.06 ppb         43.052   8.93%
   QC value within limits for Sb 206.836  Recovery = 96.41%
Se 196.026†              360.0      499.81 µg/L        33.957      499.81 ppb         33.957   6.79%
   QC value within limits for Se 196.026  Recovery = 99.96%
SiO2†                  22739.9      5328.9 µg/L        268.19      5328.9 ppb         268.19   5.03%
   QC value within limits for SiO2  Recovery = 99.65%
Si 251.611†            28448.8      2493.9 µg/L        122.89      2493.9 ppb         122.89   4.93%
   QC value within limits for Si 251.611  Recovery = 99.76%
Sn 189.927†              969.3      489.61 µg/L        56.922      489.61 ppb         56.922  11.63%
   QC value within limits for Sn 189.927  Recovery = 97.92%
Sr 421.552†            96800.8      491.34 µg/L         3.225      491.34 ppb          3.225   0.66%
   QC value within limits for Sr 421.552  Recovery = 98.27%
Ti 334.940†           172689.7      492.51 µg/L        22.055      492.51 ppb         22.055   4.48%
   QC value within limits for Ti 334.940  Recovery = 98.50%
Tl 190.801†              391.9      498.07 µg/L        30.096      498.07 ppb         30.096   6.04%
   QC value within limits for Tl 190.801  Recovery = 99.61%
U 409.014†              4871.3      478.55 µg/L        40.046      478.55 ppb         40.046   8.37%
   QC value within limits for U 409.014  Recovery = 95.71%
V 292.402†             35900.5      495.17 µg/L        37.197      495.17 ppb         37.197   7.51%
   QC value within limits for V 292.402  Recovery = 99.03%
Zn 213.857†            16995.7      488.76 µg/L        34.931      488.76 ppb         34.931   7.15%
   QC value within limits for Zn 213.857  Recovery = 97.75%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/27/2010 18:17:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	100620.0	100620.0	102	%			18:18:22
1	Al 396.153Radial†	-182.4	-6.3	-3.4622	µg/L	-3.4622	ppb	18:18:22
1	Ca 317.933Radial†	358.8	-10.1	-3.8840	µg/L	-3.8840	ppb	18:18:42
1	Fe 238.204 Radial†	32.0	6.0	55.970	µg/L	55.970	ppb	18:18:42
1	K 766.490 Radial†	249.7	18.7	11.156	µg/L	11.156	ppb	18:18:22
1	Mg 279.077 IEC†	9.6	1.1	13.147	µg/L	13.147	ppb	18:18:42
1	Na 589.592 Radial†	200.5	-49.4	-21.239	µg/L	-21.239	ppb	18:18:22
1	Sr 421.552†	151.9	3.1	0.0160	µg/L	0.0160	ppb	18:18:22
1	Sc 361.383	1618721.3	1618721.3	101.65	%			18:19:44
1	Y 371.029	1132277.7	1132277.7	101.76	%			18:19:44
1	Ag 328.068†	295.0	68.4	0.6344	µg/L	0.6344	ppb	18:19:50
1	As 188.979†	-1.3	-2.9	-5.7884	µg/L	-5.7884	ppb	18:20:10
1	B 249.677†	1046.7	-308.6	-17.566	µg/L	-17.566	ppb	18:19:50
1	Ba 233.527†	-8.8	19.1	0.5296	µg/L	0.5296	ppb	18:20:10
1	Be 313.107†	-1996.5	260.0	0.2001	µg/L	0.2001	ppb	18:19:50
1	Cd 226.502†	-126.3	17.6	0.5557	µg/L	0.5557	ppb	18:20:10
1	Co 228.616†	14.4	0.3	0.0152	µg/L	0.0152	ppb	18:20:10
1	Cr 267.716†	115.4	34.5	0.9701	µg/L	0.9701	ppb	18:20:10
1	Cu 324.752†	2537.3	-165.6	-1.2605	µg/L	-1.2605	ppb	18:19:50
1	Mn 257.610†	-429.4	140.7	0.5581	µg/L	0.5581	ppb	18:20:10
1	Mo 202.031†	12.8	8.1	1.0167	µg/L	1.0167	ppb	18:20:10
1	Ni 231.604†	307.7	13.0	0.9872	µg/L	0.9872	ppb	18:20:10
1	P 214.914†	26.7	3.0	7.7193	µg/L	7.7193	ppb	18:20:10
1	Pb 220.353†	46.3	4.6	1.5544	µg/L	1.5544	ppb	18:20:10
1	S 181.975 Axial†	14.9	0.9	3.7466	µg/L	3.7466	ppb	18:20:10
1	Sb 206.836†	24.5	3.4	4.0135	µg/L	4.0135	ppb	18:20:10
1	Se 196.026†	23.4	7.9	10.848	µg/L	10.848	ppb	18:20:10
1	SiO2†	1394.8	-0.3	-0.0671	µg/L	-0.0671	ppb	18:19:50
1	Si 251.611†	428.2	65.5	5.7384	µg/L	5.7384	ppb	18:20:10
1	Sn 189.927†	10.8	2.2	1.1032	µg/L	1.1032	ppb	18:20:10
1	Ti 334.940†	167.2	150.7	0.4291	µg/L	0.4291	ppb	18:19:50
1	Tl 190.801†	-24.1	2.6	3.2382	µg/L	3.2382	ppb	18:20:10
1	U 409.014†	194.1	76.2	7.4960	µg/L	7.4960	ppb	18:19:50
1	V 292.402†	-116.5	52.0	0.7285	µg/L	0.7285	ppb	18:19:50
1	Zn 213.857†	534.3	-2.6	-0.0798	µg/L	-0.0798	ppb	18:20:10
2	Sc RADIAL	100836.3	100836.3	102	%			18:18:48
2	Al 396.153Radial†	-160.8	15.3	8.3717	µg/L	8.3717	ppb	18:18:48
2	Ca 317.933Radial†	366.8	-3.1	-1.1731	µg/L	-1.1731	ppb	18:19:08
2	Fe 238.204 Radial†	32.6	6.6	61.016	µg/L	61.016	ppb	18:19:08
2	K 766.490 Radial†	247.0	15.6	9.2823	µg/L	9.2823	ppb	18:18:48
2	Mg 279.077 IEC†	8.6	0.1	0.9659	µg/L	0.9659	ppb	18:19:08
2	Na 589.592 Radial†	186.6	-63.5	-27.296	µg/L	-27.296	ppb	18:18:48
2	Sr 421.552†	129.5	-19.1	-0.0971	µg/L	-0.0971	ppb	18:18:48
2	Sc 361.383	1616074.2	1616074.2	101.49	%			18:20:16
2	Y 371.029	1131432.0	1131432.0	101.69	%			18:20:16
2	Ag 328.068†	258.7	33.1	0.3152	µg/L	0.3152	ppb	18:20:21
2	As 188.979†	5.9	4.2	8.3621	µg/L	8.3621	ppb	18:20:42
2	B 249.677†	1061.1	-292.7	-16.666	µg/L	-16.666	ppb	18:20:21
2	Ba 233.527†	3.0	30.7	0.8515	µg/L	0.8515	ppb	18:20:42
2	Be 313.107†	-1531.1	715.4	0.5506	µg/L	0.5506	ppb	18:20:21
2	Cd 226.502†	-124.7	19.1	0.5995	µg/L	0.5995	ppb	18:20:42
2	Co 228.616†	21.9	7.7	0.4266	µg/L	0.4266	ppb	18:20:42
2	Cr 267.716†	138.2	57.2	1.6064	µg/L	1.6064	ppb	18:20:42
2	Cu 324.752†	2647.8	-52.7	-0.3929	µg/L	-0.3929	ppb	18:20:21
2	Mn 257.610†	-292.8	274.6	1.0876	µg/L	1.0876	ppb	18:20:42
2	Mo 202.031†	19.8	15.0	1.8803	µg/L	1.8803	ppb	18:20:42
2	Ni 231.604†	294.8	0.7	0.0569	µg/L	0.0569	ppb	18:20:42
2	P 214.914†	23.6	-0.0	-0.0665	µg/L	-0.0665	ppb	18:20:42
2	Pb 220.353†	44.9	3.3	1.1557	µg/L	1.1557	ppb	18:20:42

2	S 181.975 Axial†	19.1	5.0	20.998 µg/L	20.998 ppb		18:20:42
2	Sb 206.836†	24.5	3.4	4.0426 µg/L	4.0426 ppb		18:20:42
2	Se 196.026†	14.8	-0.6	-0.5447 µg/L	-0.5447 ppb		18:20:42
2	SiO2†	1427.1	33.8	7.9244 µg/L	7.9244 ppb		18:20:21
2	Si 251.611†	459.6	97.1	8.5152 µg/L	8.5152 ppb		18:20:42
2	Sn 189.927†	11.4	2.8	1.3967 µg/L	1.3967 ppb		18:20:42
2	Ti 334.940†	291.2	273.2	0.7795 µg/L	0.7795 ppb		18:20:21
2	Tl 190.801†	-30.0	-3.3	-4.1180 µg/L	-4.1180 ppb		18:20:42
2	U 409.014†	61.3	-54.3	-5.3519 µg/L	-5.3519 ppb		18:20:21
2	V 292.402†	-80.6	87.2	1.2035 µg/L	1.2035 ppb		18:20:21
2	Zn 213.857†	555.4	19.1	0.5519 µg/L	0.5519 ppb		18:20:42
3	Sc RADIAL	100452.6	100452.6	102 %			18:19:14
3	Al 396.153Radial†	-218.6	-42.2	-23.251 µg/L	-23.251 ppb		18:19:14
3	Ca 317.933Radial†	365.6	-2.9	-1.1017 µg/L	-1.1017 ppb		18:19:34
3	Fe 238.204 Radial†	27.1	1.3	11.930 µg/L	11.930 ppb		18:19:34
3	K 766.490 Radial†	239.3	8.8	5.2612 µg/L	5.2612 ppb		18:19:14
3	Mg 279.077 IEC†	8.2	-0.3	-3.5471 µg/L	-3.5471 ppb		18:19:34
3	Na 589.592 Radial†	234.5	-15.7	-6.7267 µg/L	-6.7267 ppb		18:19:14
3	Sr 421.552†	152.3	3.8	0.0193 µg/L	0.0193 ppb		18:19:14
3	Sc 361.383	1604303.9	1604303.9	100.75 %			18:20:48
3	Y 371.029	1120145.1	1120145.1	100.67 %			18:20:48
3	Ag 328.068†	354.9	130.5	1.2072 µg/L	1.2072 ppb		18:20:53
3	As 188.979†	-0.2	-1.8	-3.6623 µg/L	-3.6623 ppb		18:21:14
3	B 249.677†	1078.8	-267.4	-15.204 µg/L	-15.204 ppb		18:20:53
3	Ba 233.527†	19.1	46.6	1.2939 µg/L	1.2939 ppb		18:21:14
3	Be 313.107†	-401.5	1825.5	1.4050 µg/L	1.4050 ppb		18:20:53
3	Cd 226.502†	-87.8	54.8	1.7417 µg/L	1.7417 ppb		18:21:14
3	Co 228.616†	42.2	28.0	1.5577 µg/L	1.5577 ppb		18:21:14
3	Cr 267.716†	148.1	68.0	1.9114 µg/L	1.9114 ppb		18:21:14
3	Cu 324.752†	2728.3	46.4	0.3582 µg/L	0.3582 ppb		18:20:53
3	Mn 257.610†	-107.0	457.0	1.8050 µg/L	1.8050 ppb		18:21:14
3	Mo 202.031†	18.5	13.9	1.7390 µg/L	1.7390 ppb		18:21:14
3	Ni 231.604†	324.6	32.5	2.4683 µg/L	2.4683 ppb		18:21:14
3	P 214.914†	29.3	5.8	14.770 µg/L	14.770 ppb		18:21:14
3	Pb 220.353†	52.2	10.9	3.7190 µg/L	3.7190 ppb		18:21:14
3	S 181.975 Axial†	18.9	4.9	20.557 µg/L	20.557 ppb		18:21:14
3	Sb 206.836†	22.7	1.7	2.0550 µg/L	2.0550 ppb		18:21:14
3	Se 196.026†	21.6	6.3	8.6176 µg/L	8.6176 ppb		18:21:14
3	SiO2†	1479.5	96.1	22.515 µg/L	22.515 ppb		18:20:53
3	Si 251.611†	527.6	167.9	14.720 µg/L	14.720 ppb		18:21:14
3	Sn 189.927†	9.7	1.2	0.6041 µg/L	0.6041 ppb		18:21:14
3	Ti 334.940†	668.6	649.8	1.8549 µg/L	1.8549 ppb		18:20:53
3	Tl 190.801†	-28.7	-2.2	-2.7063 µg/L	-2.7063 ppb		18:21:14
3	U 409.014†	125.8	10.2	1.0017 µg/L	1.0017 ppb		18:20:53
3	V 292.402†	-21.8	145.0	1.9967 µg/L	1.9967 ppb		18:20:53
3	Zn 213.857†	583.9	51.4	1.4782 µg/L	1.4782 ppb		18:21:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1613033.2	101.30	%	0.482				0.48%
Sc RADIAL	100636.3	102	%	0.2				0.19%
Y 371.029	1127951.6	101.38	%	0.609				0.60%
Ag 328.068†	77.4	0.7189	µg/L	0.45194	0.7189	ppb	0.45194	62.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.1	-6.1139	µg/L	15.97737	-6.1139	ppb	15.97737	261.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.2	-0.3629	µg/L	7.63043	-0.3629	ppb	7.63043	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-289.6	-16.479	µg/L	1.1920	-16.479	ppb	1.1920	7.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	32.1	0.8917	µg/L	0.38371	0.8917	ppb	0.38371	43.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	933.6	0.7186	µg/L	0.61978	0.7186	ppb	0.61978	86.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.4	-2.0530	µg/L	1.58614	-2.0530	ppb	1.58614	77.26%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	30.5	0.9657	µg/L	0.67245	0.9657	ppb	0.67245	69.64%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.0	0.6665	µg/L	0.79878	0.6665	ppb	0.79878	119.85%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              53.2      1.4960 µg/L       0.48025      1.4960 ppb        0.48025  32.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -57.3     -0.4317 µg/L       0.81006     -0.4317 ppb        0.81006 187.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        4.6      42.972 µg/L       27.0011      42.972 ppb        27.0011  62.83%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        14.4      8.5665 µg/L       3.01188      8.5665 ppb        3.01188  35.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.3      3.5220 µg/L       8.63574      3.5220 ppb        8.63574 245.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             290.8      1.1502 µg/L       0.62581      1.1502 ppb        0.62581  54.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              12.3      1.5453 µg/L       0.46325      1.5453 ppb        0.46325  29.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -42.9     -18.421 µg/L       10.5704     -18.421 ppb        10.5704  57.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              15.4      1.1708 µg/L       1.21618      1.1708 ppb        1.21618 103.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.9      7.4741 µg/L       7.42106      7.4741 ppb        7.42106  99.29%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               6.3      2.1430 µg/L       1.37931      2.1430 ppb        1.37931  64.36%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.6      15.101 µg/L        9.8355      15.101 ppb         9.8355  65.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.8      3.3703 µg/L       1.13924      3.3703 ppb        1.13924  33.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.6      6.3068 µg/L       6.03748      6.3068 ppb        6.03748  95.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    43.2      10.124 µg/L       11.4507      10.124 ppb        11.4507 113.10%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             110.2      9.6578 µg/L       4.59845      9.6578 ppb        4.59845  47.61%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.1      1.0347 µg/L       0.40074      1.0347 ppb        0.40074  38.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -4.1     -0.0206 µg/L       0.06630     -0.0206 ppb        0.06630 321.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             357.9      1.0212 µg/L       0.74297      1.0212 ppb        0.74297  72.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.0     -1.1953 µg/L       3.90393     -1.1953 ppb        3.90393 326.59%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               10.7      1.0486 µg/L       6.42411      1.0486 ppb        6.42411 612.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               94.7      1.3095 µg/L       0.64072      1.3095 ppb        0.64072  48.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              22.7      0.6501 µg/L       0.78361      0.6501 ppb        0.78361 120.53%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/27/2010 18:50:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	102237.5	102237.5	103	%			18:51:16
1	Al 396.153Radial†	9570.8	9429.2	5176.0	µg/L	5176.0	ppb	18:51:16
1	Ca 317.933Radial†	14369.1	13534.2	5181.0	µg/L	5181.0	ppb	18:51:16
1	Fe 238.204 Radial†	597.2	552.1	5152.1	µg/L	5152.1	ppb	18:51:37
1	K 766.490 Radial†	8831.6	8314.7	4958.6	µg/L	4958.6	ppb	18:51:16
1	Mg 279.077 IEC†	455.6	432.3	5207.1	µg/L	5207.1	ppb	18:51:37
1	Na 589.592 Radial†	24137.9	23098.3	9923.9	µg/L	9923.9	ppb	18:51:16
1	Sr 421.552†	98774.4	95382.4	484.14	µg/L	484.14	ppb	18:51:16
1	Sc 361.383	1592836.6	1592836.6	100.03	%			18:52:40
1	Y 371.029	1111119.7	1111119.7	99.863	%			18:52:40
1	Ag 328.068†	56890.4	56653.3	521.78	µg/L	521.78	ppb	18:52:46
1	As 188.979†	271.6	269.9	533.82	µg/L	533.82	ppb	18:53:06
1	B 249.677†	10191.9	8850.9	501.27	µg/L	501.27	ppb	18:52:46
1	Ba 233.527†	19068.3	19090.9	529.22	µg/L	529.22	ppb	18:52:46
1	Be 313.107†	669535.7	671579.2	516.94	µg/L	516.94	ppb	18:52:40
1	Cd 226.502†	16514.5	16651.9	529.32	µg/L	529.32	ppb	18:52:46
1	Co 228.616†	9580.7	9564.2	532.57	µg/L	532.57	ppb	18:52:46
1	Cr 267.716†	19127.5	19043.3	535.32	µg/L	535.32	ppb	18:52:46
1	Cu 324.752†	71414.9	68733.9	528.47	µg/L	528.47	ppb	18:52:46
1	Mn 257.610†	134795.3	135322.1	534.20	µg/L	534.20	ppb	18:52:46
1	Mo 202.031†	4333.6	4327.9	541.32	µg/L	541.32	ppb	18:53:06
1	Ni 231.604†	7682.2	7390.4	560.80	µg/L	560.80	ppb	18:52:46
1	P 214.914†	1082.6	1059.1	2633.2	µg/L	2633.2	ppb	18:53:06
1	Pb 220.353†	1614.8	1573.5	538.22	µg/L	538.22	ppb	18:53:06
1	S 181.975 Axial†	272.3	258.4	1075.9	µg/L	1075.9	ppb	18:53:06
1	Sb 206.836†	465.5	444.6	528.71	µg/L	528.71	ppb	18:53:06
1	Se 196.026†	414.2	399.0	552.52	µg/L	552.52	ppb	18:53:06
1	SiO2†	25679.2	24299.8	5694.5	µg/L	5694.5	ppb	18:52:46
1	Si 251.611†	30703.6	30339.6	2659.7	µg/L	2659.7	ppb	18:52:46
1	Sn 189.927†	1090.1	1081.3	546.17	µg/L	546.17	ppb	18:53:06
1	Ti 334.940†	181327.7	181265.1	516.99	µg/L	516.99	ppb	18:52:40
1	Tl 190.801†	399.8	426.0	541.26	µg/L	541.26	ppb	18:53:06
1	U 409.014†	5515.4	5399.2	530.52	µg/L	530.52	ppb	18:52:46
1	V 292.402†	38740.4	38896.5	536.58	µg/L	536.58	ppb	18:52:46
1	Zn 213.857†	18952.6	18419.3	529.74	µg/L	529.74	ppb	18:52:46
2	Sc RADIAL	101220.9	101220.9	102	%			18:51:43
2	Al 396.153Radial†	9631.8	9581.8	5260.1	µg/L	5260.1	ppb	18:51:43
2	Ca 317.933Radial†	14607.9	13907.0	5323.7	µg/L	5323.7	ppb	18:51:43
2	Fe 238.204 Radial†	600.5	561.2	5236.6	µg/L	5236.6	ppb	18:52:03
2	K 766.490 Radial†	9009.1	8573.9	5113.2	µg/L	5113.2	ppb	18:51:43
2	Mg 279.077 IEC†	459.3	440.4	5303.7	µg/L	5303.7	ppb	18:52:03
2	Na 589.592 Radial†	24550.2	23735.4	10198	µg/L	10198	ppb	18:51:43
2	Sr 421.552†	100411.7	97941.2	497.13	µg/L	497.13	ppb	18:51:43
2	Sc 361.383	1598665.9	1598665.9	100.39	%			18:53:13
2	Y 371.029	1116137.8	1116137.8	100.31	%			18:53:13
2	Ag 328.068†	56487.5	56044.5	516.19	µg/L	516.19	ppb	18:53:19
2	As 188.979†	262.8	260.1	514.37	µg/L	514.37	ppb	18:53:39
2	B 249.677†	10164.3	8786.2	497.54	µg/L	497.54	ppb	18:53:19
2	Ba 233.527†	18997.1	18950.4	525.32	µg/L	525.32	ppb	18:53:19
2	Be 313.107†	674758.3	674340.6	519.07	µg/L	519.07	ppb	18:53:13
2	Cd 226.502†	16441.5	16519.0	525.08	µg/L	525.08	ppb	18:53:19
2	Co 228.616†	9518.9	9467.7	527.17	µg/L	527.17	ppb	18:53:19
2	Cr 267.716†	19044.4	18890.8	531.04	µg/L	531.04	ppb	18:53:19
2	Cu 324.752†	70966.5	68027.0	523.06	µg/L	523.06	ppb	18:53:19
2	Mn 257.610†	135902.9	135934.0	536.62	µg/L	536.62	ppb	18:53:19
2	Mo 202.031†	4287.1	4265.8	533.56	µg/L	533.56	ppb	18:53:39
2	Ni 231.604†	7629.6	7310.0	554.70	µg/L	554.70	ppb	18:53:19
2	P 214.914†	1071.1	1043.6	2594.3	µg/L	2594.3	ppb	18:53:39
2	Pb 220.353†	1604.3	1557.1	532.62	µg/L	532.62	ppb	18:53:39

2	S 181.975 Axial†	269.6	254.8	1060.9 µg/L	1060.9 ppb	18:53:39
2	Sb 206.836†	461.8	439.3	522.30 µg/L	522.30 ppb	18:53:39
2	Se 196.026†	410.4	393.8	545.58 µg/L	545.58 ppb	18:53:39
2	SiO2†	25729.2	24256.1	5684.2 µg/L	5684.2 ppb	18:53:19
2	Si 251.611†	30769.5	30293.3	2655.6 µg/L	2655.6 ppb	18:53:19
2	Sn 189.927†	1072.1	1059.5	535.14 µg/L	535.14 ppb	18:53:39
2	Ti 334.940†	183714.3	182981.3	521.88 µg/L	521.88 ppb	18:53:13
2	Tl 190.801†	393.9	418.6	531.97 µg/L	531.97 ppb	18:53:39
2	U 409.014†	5441.3	5305.3	521.25 µg/L	521.25 ppb	18:53:19
2	V 292.402†	38517.9	38533.7	531.56 µg/L	531.56 ppb	18:53:19
2	Zn 213.857†	18862.2	18260.2	525.15 µg/L	525.15 ppb	18:53:19
3	Sc RADIAL	100767.5	100767.5	102 %		18:52:09
3	Al 396.153Radial†	9582.0	9575.2	5258.2 µg/L	5258.2 ppb	18:52:09
3	Ca 317.933Radial†	14469.7	13835.6	5296.4 µg/L	5296.4 ppb	18:52:09
3	Fe 238.204 Radial†	601.3	564.6	5266.7 µg/L	5266.7 ppb	18:52:29
3	K 766.490 Radial†	8896.4	8502.9	5070.8 µg/L	5070.8 ppb	18:52:09
3	Mg 279.077 IEC†	460.1	443.2	5336.1 µg/L	5336.1 ppb	18:52:29
3	Na 589.592 Radial†	24504.5	23798.5	10225 µg/L	10225 ppb	18:52:09
3	Sr 421.552†	100018.9	97997.2	497.41 µg/L	497.41 ppb	18:52:09
3	Sc 361.383	1588603.3	1588603.3	99.761 %		18:53:46
3	Y 371.029	1107885.0	1107885.0	99.572 %		18:53:46
3	Ag 328.068†	52560.9	52464.9	483.09 µg/L	483.09 ppb	18:53:52
3	As 188.979†	235.7	234.6	463.83 µg/L	463.83 ppb	18:54:12
3	B 249.677†	9440.9	8125.2	459.84 µg/L	459.84 ppb	18:53:52
3	Ba 233.527†	17153.0	17221.8	477.38 µg/L	477.38 ppb	18:53:52
3	Be 313.107†	625593.2	629315.2	484.41 µg/L	484.41 ppb	18:53:46
3	Cd 226.502†	14723.2	14900.3	473.56 µg/L	473.56 ppb	18:53:52
3	Co 228.616†	8449.8	8456.1	470.76 µg/L	470.76 ppb	18:53:52
3	Cr 267.716†	16493.3	16453.8	462.54 µg/L	462.54 ppb	18:53:52
3	Cu 324.752†	63831.3	61322.4	471.61 µg/L	471.61 ppb	18:53:52
3	Mn 257.610†	123502.8	124361.6	490.93 µg/L	490.93 ppb	18:53:52
3	Mo 202.031†	3582.7	3586.8	448.66 µg/L	448.66 ppb	18:54:12
3	Ni 231.604†	6770.9	6497.5	493.04 µg/L	493.04 ppb	18:53:52
3	P 214.914†	919.3	898.3	2230.1 µg/L	2230.1 ppb	18:54:12
3	Pb 220.353†	1404.7	1367.1	467.64 µg/L	467.64 ppb	18:54:12
3	S 181.975 Axial†	239.8	226.6	943.58 µg/L	943.58 ppb	18:54:12
3	Sb 206.836†	389.8	370.0	439.76 µg/L	439.76 ppb	18:54:12
3	Se 196.026†	356.0	341.8	475.36 µg/L	475.36 ppb	18:54:12
3	SiO2†	23942.2	22627.2	5302.5 µg/L	5302.5 ppb	18:53:52
3	Si 251.611†	28551.0	28263.6	2477.7 µg/L	2477.7 ppb	18:53:52
3	Sn 189.927†	882.4	876.1	442.60 µg/L	442.60 ppb	18:54:12
3	Ti 334.940†	171978.3	172376.4	491.62 µg/L	491.62 ppb	18:53:46
3	Tl 190.801†	351.7	378.9	481.66 µg/L	481.66 ppb	18:54:12
3	U 409.014†	4790.7	4687.5	460.43 µg/L	460.43 ppb	18:53:52
3	V 292.402†	34113.0	34361.3	473.79 µg/L	473.79 ppb	18:53:52
3	Zn 213.857†	16924.9	16437.3	472.70 µg/L	472.70 ppb	18:53:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1593368.6	100.06	%	0.317				0.32%
Sc RADIAL	101408.6	103	%	0.8				0.74%
Y 371.029	1111714.2	99.916	%	0.3737				0.37%
Ag 328.068†	55054.3	507.02	µg/L	20.909	507.02	ppb	20.909	4.12%
QC value within limits for Ag 328.068 Recovery = 101.40%								
Al 396.153Radial†	9528.7	5231.4	µg/L	48.02	5231.4	ppb	48.02	0.92%
QC value within limits for Al 396.153Radial Recovery = 104.63%								
As 188.979†	254.9	504.01	µg/L	36.124	504.01	ppb	36.124	7.17%
QC value within limits for As 188.979 Recovery = 100.80%								
B 249.677†	8587.4	486.21	µg/L	22.918	486.21	ppb	22.918	4.71%
QC value within limits for B 249.677 Recovery = 97.24%								
Ba 233.527†	18421.0	510.64	µg/L	28.866	510.64	ppb	28.866	5.65%
QC value within limits for Ba 233.527 Recovery = 102.13%								
Be 313.107†	658411.6	506.81	µg/L	19.427	506.81	ppb	19.427	3.83%
QC value within limits for Be 313.107 Recovery = 101.36%								
Ca 317.933Radial†	13758.9	5267.0	µg/L	75.75	5267.0	ppb	75.75	1.44%
QC value within limits for Ca 317.933Radial Recovery = 105.34%								
Cd 226.502†	16023.8	509.32	µg/L	31.043	509.32	ppb	31.043	6.09%
QC value within limits for Cd 226.502 Recovery = 101.86%								
Co 228.616†	9162.7	510.17	µg/L	34.230	510.17	ppb	34.230	6.71%

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   QC value within limits for Co 228.616  Recovery = 102.03%
Cr 267.716†            18129.3      509.63 µg/L        40.842      509.63 ppb         40.842   8.01%
   QC value within limits for Cr 267.716  Recovery = 101.93%
Cu 324.752†            66027.8      507.71 µg/L        31.382      507.71 ppb         31.382   6.18%
   QC value within limits for Cu 324.752  Recovery = 101.54%
Fe 238.204 Radial†       559.3      5218.5 µg/L         59.39      5218.5 ppb          59.39   1.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.37%
K 766.490 Radial†       8463.8      5047.5 µg/L         79.89      5047.5 ppb          79.89   1.58%
   QC value within limits for K 766.490 Radial  Recovery = 100.95%
Mg 279.077 IEC†          438.6      5282.3 µg/L         67.10      5282.3 ppb          67.10   1.27%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.65%
Mn 257.610†           131872.6      520.58 µg/L        25.709      520.58 ppb         25.709   4.94%
   QC value within limits for Mn 257.610  Recovery = 104.12%
Mo 202.031†             4060.2      507.85 µg/L        51.404      507.85 ppb         51.404  10.12%
   QC value within limits for Mo 202.031  Recovery = 101.57%
Na 589.592 Radial†     23544.0       10115 µg/L         166.4       10115 ppb          166.4   1.65%
   QC value within limits for Na 589.592 Radial  Recovery = 101.15%
Ni 231.604†             7066.0      536.18 µg/L        37.480      536.18 ppb         37.480   6.99%
   QC value within limits for Ni 231.604  Recovery = 107.24%
P 214.914†              1000.3      2485.9 µg/L        222.34      2485.9 ppb         222.34   8.94%
   QC value within limits for P 214.914  Recovery = 99.44%
Pb 220.353†             1499.2      512.83 µg/L        39.236      512.83 ppb         39.236   7.65%
   QC value within limits for Pb 220.353  Recovery = 102.57%
S 181.975 Axial†         246.6      1026.8 µg/L         72.48      1026.8 ppb          72.48   7.06%
   QC value within limits for S 181.975 Axial  Recovery = 102.68%
Sb 206.836†              418.0      496.92 µg/L        49.611      496.92 ppb         49.611   9.98%
   QC value within limits for Sb 206.836  Recovery = 99.38%
Se 196.026†              378.2      524.49 µg/L        42.685      524.49 ppb         42.685   8.14%
   QC value within limits for Se 196.026  Recovery = 104.90%
SiO2†                  23727.7      5560.4 µg/L        223.41      5560.4 ppb         223.41   4.02%
   QC value within limits for SiO2  Recovery = 103.98%
Si 251.611†            29632.1      2597.7 µg/L        103.92      2597.7 ppb         103.92   4.00%
   QC value within limits for Si 251.611  Recovery = 103.91%
Sn 189.927†             1005.6      507.97 µg/L        56.884      507.97 ppb         56.884  11.20%
   QC value within limits for Sn 189.927  Recovery = 101.59%
Sr 421.552†            97106.9      492.90 µg/L         7.582      492.90 ppb          7.582   1.54%
   QC value within limits for Sr 421.552  Recovery = 98.58%
Ti 334.940†           178874.3      510.16 µg/L        16.249      510.16 ppb         16.249   3.18%
   QC value within limits for Ti 334.940  Recovery = 102.03%
Tl 190.801†              407.8      518.29 µg/L        32.067      518.29 ppb         32.067   6.19%
   QC value within limits for Tl 190.801  Recovery = 103.66%
U 409.014†              5130.6      504.07 µg/L        38.073      504.07 ppb         38.073   7.55%
   QC value within limits for U 409.014  Recovery = 100.81%
V 292.402†             37263.8      513.98 µg/L        34.897      513.98 ppb         34.897   6.79%
   QC value within limits for V 292.402  Recovery = 102.80%
Zn 213.857†            17705.6      509.19 µg/L        31.693      509.19 ppb         31.693   6.22%
   QC value within limits for Zn 213.857  Recovery = 101.84%
All analyte(s) passed QC.
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Sequence No.: 22 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/27/2010 18:54:22**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	97915.4	97915.4	99.0	%			18:54:54
1	Al 396.153Radial†	-196.7	-25.7	-14.158	µg/L	-14.158	ppb	18:54:54
1	Ca 317.933Radial†	348.4	-10.9	-4.1847	µg/L	-4.1847	ppb	18:55:15
1	Fe 238.204 Radial†	31.7	6.6	61.019	µg/L	61.019	ppb	18:55:15
1	K 766.490 Radial†	316.2	92.6	55.220	µg/L	55.220	ppb	18:54:54
1	Mg 279.077 IEC†	11.0	2.7	33.041	µg/L	33.041	ppb	18:55:15
1	Na 589.592 Radial†	191.0	-53.6	-23.048	µg/L	-23.048	ppb	18:54:54
1	Sr 421.552†	131.1	-13.7	-0.0695	µg/L	-0.0695	ppb	18:54:54
1	Sc 361.383	1593764.1	1593764.1	100.09	%			18:56:17
1	Y 371.029	1114151.9	1114151.9	100.14	%			18:56:17
1	Ag 328.068†	256.2	34.2	0.3191	µg/L	0.3191	ppb	18:56:22
1	As 188.979†	0.6	-1.1	-2.1063	µg/L	-2.1063	ppb	18:56:43
1	B 249.677†	1064.5	-274.7	-15.645	µg/L	-15.645	ppb	18:56:22
1	Ba 233.527†	-11.9	15.9	0.4393	µg/L	0.4393	ppb	18:56:43
1	Be 313.107†	-1793.5	432.0	0.3324	µg/L	0.3324	ppb	18:56:22
1	Cd 226.502†	-137.3	4.8	0.1459	µg/L	0.1459	ppb	18:56:43
1	Co 228.616†	23.3	9.4	0.5242	µg/L	0.5242	ppb	18:56:43
1	Cr 267.716†	114.1	35.0	0.9834	µg/L	0.9834	ppb	18:56:43
1	Cu 324.752†	2664.1	0.1	0.0121	µg/L	0.0121	ppb	18:56:22
1	Mn 257.610†	-350.3	213.1	0.8426	µg/L	0.8426	ppb	18:56:43
1	Mo 202.031†	13.7	9.2	1.1527	µg/L	1.1527	ppb	18:56:43
1	Ni 231.604†	311.9	22.0	1.6676	µg/L	1.6676	ppb	18:56:43
1	P 214.914†	26.5	3.2	8.1699	µg/L	8.1699	ppb	18:56:43
1	Pb 220.353†	42.8	1.8	0.6312	µg/L	0.6312	ppb	18:56:43
1	S 181.975 Axial†	15.0	1.2	4.9552	µg/L	4.9552	ppb	18:56:43
1	Sb 206.836†	22.2	1.4	1.7021	µg/L	1.7021	ppb	18:56:43
1	Se 196.026†	8.6	-6.5	-8.6582	µg/L	-8.6582	ppb	18:56:43
1	SiO2†	1381.3	7.7	1.8024	µg/L	1.8024	ppb	18:56:22
1	Si 251.611†	431.6	75.5	6.6200	µg/L	6.6200	ppb	18:56:43
1	Sn 189.927†	8.4	-0.0	-0.0068	µg/L	-0.0068	ppb	18:56:43
1	Ti 334.940†	266.4	252.5	0.7179	µg/L	0.7179	ppb	18:56:22
1	Tl 190.801†	-24.4	1.9	2.4015	µg/L	2.4015	ppb	18:56:43
1	U 409.014†	121.4	6.5	0.6358	µg/L	0.6358	ppb	18:56:22
1	V 292.402†	-146.1	20.7	0.2958	µg/L	0.2958	ppb	18:56:22
1	Zn 213.857†	550.6	21.9	0.6235	µg/L	0.6235	ppb	18:56:43
2	Sc RADIAL	97693.6	97693.6	98.8	%			18:55:20
2	Al 396.153Radial†	-163.3	7.7	4.1820	µg/L	4.1820	ppb	18:55:20
2	Ca 317.933Radial†	359.1	0.8	0.2965	µg/L	0.2965	ppb	18:55:41
2	Fe 238.204 Radial†	29.0	3.9	36.759	µg/L	36.759	ppb	18:55:41
2	K 766.490 Radial†	238.2	14.4	8.5668	µg/L	8.5668	ppb	18:55:20
2	Mg 279.077 IEC†	9.2	1.0	11.976	µg/L	11.976	ppb	18:55:41
2	Na 589.592 Radial†	189.1	-55.1	-23.672	µg/L	-23.672	ppb	18:55:20
2	Sr 421.552†	134.0	-10.4	-0.0530	µg/L	-0.0530	ppb	18:55:20
2	Sc 361.383	1609811.8	1609811.8	101.09	%			18:56:49
2	Y 371.029	1125876.2	1125876.2	101.19	%			18:56:49
2	Ag 328.068†	314.3	89.1	0.8258	µg/L	0.8258	ppb	18:56:54
2	As 188.979†	6.1	4.4	8.7376	µg/L	8.7376	ppb	18:57:15
2	B 249.677†	1041.9	-307.6	-17.500	µg/L	-17.500	ppb	18:56:54
2	Ba 233.527†	32.5	59.8	1.6576	µg/L	1.6576	ppb	18:57:15
2	Be 313.107†	-852.7	1380.6	1.0624	µg/L	1.0624	ppb	18:56:54
2	Cd 226.502†	-88.0	54.9	1.7439	µg/L	1.7439	ppb	18:57:15
2	Co 228.616†	41.0	26.6	1.4837	µg/L	1.4837	ppb	18:57:15
2	Cr 267.716†	158.3	77.6	2.1796	µg/L	2.1796	ppb	18:57:15
2	Cu 324.752†	2677.6	-13.1	-0.0935	µg/L	-0.0935	ppb	18:56:54
2	Mn 257.610†	-0.2	562.9	2.2237	µg/L	2.2237	ppb	18:57:15
2	Mo 202.031†	28.9	24.1	3.0100	µg/L	3.0100	ppb	18:57:15
2	Ni 231.604†	327.2	34.0	2.5817	µg/L	2.5817	ppb	18:57:15
2	P 214.914†	29.9	6.3	16.067	µg/L	16.067	ppb	18:57:15
2	Pb 220.353†	43.8	2.3	0.8121	µg/L	0.8121	ppb	18:57:15

2	S 181.975 Axial†	18.4	4.4	18.190 µg/L	18.190 ppb	18:57:15
2	Sb 206.836†	26.3	5.3	6.3074 µg/L	6.3074 ppb	18:57:15
2	Se 196.026†	15.2	-0.0	0.0509 µg/L	0.0509 ppb	18:57:15
2	SiO2†	1459.8	71.6	16.776 µg/L	16.776 ppb	18:56:54
2	Si 251.611†	512.6	151.3	13.266 µg/L	13.266 ppb	18:57:15
2	Sn 189.927†	11.0	2.4	1.2241 µg/L	1.2241 ppb	18:57:15
2	Ti 334.940†	608.7	588.3	1.6781 µg/L	1.6781 ppb	18:56:54
2	Tl 190.801†	-27.4	-0.8	-1.0264 µg/L	-1.0264 ppb	18:57:15
2	U 409.014†	74.7	-40.9	-4.0269 µg/L	-4.0269 ppb	18:56:54
2	V 292.402†	-77.2	90.2	1.2554 µg/L	1.2554 ppb	18:56:54
2	Zn 213.857†	592.2	57.6	1.6552 µg/L	1.6552 ppb	18:57:15
3	Sc RADIAL	99336.1	99336.1	100 %		18:55:46
3	Al 396.153Radial†	-170.3	3.4	1.8034 µg/L	1.8034 ppb	18:55:46
3	Ca 317.933Radial†	364.9	0.5	0.1825 µg/L	0.1825 ppb	18:56:07
3	Fe 238.204 Radial†	31.4	5.8	53.855 µg/L	53.855 ppb	18:56:07
3	K 766.490 Radial†	182.7	-44.8	-26.744 µg/L	-26.744 ppb	18:55:46
3	Mg 279.077 IEC†	10.9	2.5	30.065 µg/L	30.065 ppb	18:56:07
3	Na 589.592 Radial†	236.3	-11.2	-4.8232 µg/L	-4.8232 ppb	18:55:46
3	Sr 421.552†	162.2	15.3	0.0778 µg/L	0.0778 ppb	18:55:46
3	Sc 361.383	1603535.9	1603535.9	100.70 %		18:57:20
3	Y 371.029	1119489.4	1119489.4	100.61 %		18:57:20
3	Ag 328.068†	516.9	291.5	2.6910 µg/L	2.6910 ppb	18:57:26
3	As 188.979†	1.0	-0.7	-1.3735 µg/L	-1.3735 ppb	18:57:46
3	B 249.677†	1081.0	-264.8	-15.073 µg/L	-15.073 ppb	18:57:26
3	Ba 233.527†	91.1	118.1	3.2751 µg/L	3.2751 ppb	18:57:46
3	Be 313.107†	1656.7	3869.2	2.9781 µg/L	2.9781 ppb	18:57:26
3	Cd 226.502†	-43.5	98.7	3.1362 µg/L	3.1362 ppb	18:57:46
3	Co 228.616†	79.4	64.9	3.6152 µg/L	3.6152 ppb	18:57:46
3	Cr 267.716†	205.5	125.1	3.5156 µg/L	3.5156 ppb	18:57:46
3	Cu 324.752†	2982.6	300.2	2.3141 µg/L	2.3141 ppb	18:57:26
3	Mn 257.610†	393.5	953.9	3.7671 µg/L	3.7671 ppb	18:57:46
3	Mo 202.031†	40.1	35.3	4.4179 µg/L	4.4179 ppb	18:57:46
3	Ni 231.604†	340.9	48.8	3.7066 µg/L	3.7066 ppb	18:57:46
3	P 214.914†	31.6	8.1	20.412 µg/L	20.412 ppb	18:57:46
3	Pb 220.353†	50.5	9.2	3.1657 µg/L	3.1657 ppb	18:57:46
3	S 181.975 Axial†	18.9	4.9	20.577 µg/L	20.577 ppb	18:57:46
3	Sb 206.836†	26.1	5.2	6.1458 µg/L	6.1458 ppb	18:57:46
3	Se 196.026†	18.4	3.1	4.4146 µg/L	4.4146 ppb	18:57:46
3	SiO2†	1558.0	174.7	40.947 µg/L	40.947 ppb	18:57:26
3	Si 251.611†	624.3	264.3	23.168 µg/L	23.168 ppb	18:57:46
3	Sn 189.927†	15.2	6.7	3.3776 µg/L	3.3776 ppb	18:57:46
3	Ti 334.940†	1311.6	1288.7	3.6756 µg/L	3.6756 ppb	18:57:26
3	Tl 190.801†	-18.4	8.0	10.101 µg/L	10.101 ppb	18:57:46
3	U 409.014†	103.9	-11.5	-1.1441 µg/L	-1.1441 ppb	18:57:26
3	V 292.402†	81.1	247.1	3.4132 µg/L	3.4132 ppb	18:57:26
3	Zn 213.857†	646.5	113.9	3.2743 µg/L	3.2743 ppb	18:57:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1602370.6	100.63	%	0.508				0.50%
Sc RADIAL	98315.0	99.4	%	0.90				0.91%
Y 371.029	1119839.2	100.65	%	0.528				0.52%
Ag 328.068†	138.3	1.2786	µg/L	1.24912	1.2786	ppb	1.24912	97.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.8	-2.7244	µg/L	9.97337	-2.7244	ppb	9.97337	366.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.9	1.7526	µg/L	6.06024	1.7526	ppb	6.06024	345.79%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-282.4	-16.072	µg/L	1.2685	-16.072	ppb	1.2685	7.89%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	64.6	1.7907	µg/L	1.42255	1.7907	ppb	1.42255	79.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	1893.9	1.4576	µg/L	1.36638	1.4576	ppb	1.36638	93.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.2	-1.2352	µg/L	2.55493	-1.2352	ppb	2.55493	206.84%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	52.8	1.6753	µg/L	1.49633	1.6753	ppb	1.49633	89.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	33.7	1.8744	µg/L	1.58211	1.8744	ppb	1.58211	84.41%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 79.2      2.2262 µg/L       1.26676      2.2262 ppb        1.26676  56.90%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 95.7      0.7442 µg/L       1.36059      0.7442 ppb        1.36059 182.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†           5.4     50.544 µg/L       12.4642     50.544 ppb        12.4642  24.66%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           20.7     12.347 µg/L       41.1124     12.347 ppb        41.1124 332.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†              2.1     25.027 µg/L       11.4004     25.027 ppb        11.4004  45.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                576.6      2.2778 µg/L       1.46301      2.2778 ppb        1.46301  64.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 22.9      2.8602 µg/L       1.63777      2.8602 ppb        1.63777  57.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -40.0    -17.181 µg/L       10.7067    -17.181 ppb        10.7067  62.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 34.9      2.6520 µg/L       1.02132      2.6520 ppb        1.02132  38.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                   5.9     14.883 µg/L        6.2064     14.883 ppb         6.2064  41.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                  4.5      1.5363 µg/L       1.41395      1.5363 ppb        1.41395  92.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†             3.5     14.574 µg/L        8.4152     14.574 ppb         8.4152  57.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                  4.0      4.7185 µg/L       2.61351      4.7185 ppb        2.61351  55.39%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 -1.1     -1.3976 µg/L       6.65570     -1.3976 ppb        6.65570 476.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       84.7     19.842 µg/L       19.7516     19.842 ppb        19.7516  99.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                163.7     14.351 µg/L        8.3271     14.351 ppb         8.3271  58.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                  3.0      1.5316 µg/L       1.71301      1.5316 ppb        1.71301 111.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 -2.9     -0.0149 µg/L       0.08069     -0.0149 ppb        0.08069 541.39%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                709.8      2.0238 µg/L       1.50888      2.0238 ppb        1.50888  74.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                  3.0      3.8255 µg/L       5.69892      3.8255 ppb        5.69892 148.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -15.3     -1.5117 µg/L       2.35298     -1.5117 ppb        2.35298 155.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 119.3      1.6548 µg/L       1.59660      1.6548 ppb        1.59660  96.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 64.5      1.8510 µg/L       1.33617      1.8510 ppb        1.33617  72.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/27/2010 19:23:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	103829.2	103829.2	105	%			19:24:05
1	Al 396.153Radial†	9439.0	9161.8	5029.6	µg/L	5029.6	ppb	19:24:05
1	Ca 317.933Radial†	14077.7	13043.6	4993.2	µg/L	4993.2	ppb	19:24:25
1	Fe 238.204 Radial†	593.3	539.6	5034.7	µg/L	5034.7	ppb	19:24:25
1	K 766.490 Radial†	8769.3	8124.4	4845.1	µg/L	4845.1	ppb	19:24:05
1	Mg 279.077 IEC†	452.7	422.8	5092.0	µg/L	5092.0	ppb	19:24:25
1	Na 589.592 Radial†	24363.7	22955.3	9862.5	µg/L	9862.5	ppb	19:24:05
1	Sr 421.552†	98855.7	93995.4	477.10	µg/L	477.10	ppb	19:24:05
1	Sc 361.383	1654024.9	1654024.9	103.87	%			19:25:28
1	Y 371.029	1152549.7	1152549.7	103.59	%			19:25:28
1	Ag 328.068†	54978.7	52708.8	485.47	µg/L	485.47	ppb	19:25:34
1	As 188.979†	266.0	254.5	503.26	µg/L	503.26	ppb	19:25:54
1	B 249.677†	9864.5	8158.7	461.92	µg/L	461.92	ppb	19:25:34
1	Ba 233.527†	18416.2	17757.8	492.26	µg/L	492.26	ppb	19:25:34
1	Be 313.107†	660151.8	637783.0	490.93	µg/L	490.93	ppb	19:25:28
1	Cd 226.502†	15912.6	15461.8	491.46	µg/L	491.46	ppb	19:25:34
1	Co 228.616†	9242.2	8884.0	494.66	µg/L	494.66	ppb	19:25:34
1	Cr 267.716†	18434.0	17668.2	496.67	µg/L	496.67	ppb	19:25:34
1	Cu 324.752†	68894.3	63666.1	489.55	µg/L	489.55	ppb	19:25:34
1	Mn 257.610†	129216.5	124965.9	493.32	µg/L	493.32	ppb	19:25:34
1	Mo 202.031†	4210.0	4048.7	506.40	µg/L	506.40	ppb	19:25:54
1	Ni 231.604†	7429.7	6863.2	520.79	µg/L	520.79	ppb	19:25:34
1	P 214.914†	1057.4	994.8	2473.8	µg/L	2473.8	ppb	19:25:54
1	Pb 220.353†	1564.7	1465.4	501.31	µg/L	501.31	ppb	19:25:54
1	S 181.975 Axial†	260.1	236.6	985.17	µg/L	985.17	ppb	19:25:54
1	Sb 206.836†	449.2	411.8	489.68	µg/L	489.68	ppb	19:25:54
1	Se 196.026†	396.0	366.2	507.78	µg/L	507.78	ppb	19:25:54
1	SiO2†	24812.9	22516.2	5276.5	µg/L	5276.5	ppb	19:25:34
1	Si 251.611†	29647.2	28187.0	2471.0	µg/L	2471.0	ppb	19:25:34
1	Sn 189.927†	1056.6	1008.8	509.55	µg/L	509.55	ppb	19:25:54
1	Ti 334.940†	179920.6	173204.2	493.99	µg/L	493.99	ppb	19:25:28
1	Tl 190.801†	380.6	392.6	499.01	µg/L	499.01	ppb	19:25:54
1	U 409.014†	5251.4	4941.0	485.44	µg/L	485.44	ppb	19:25:34
1	V 292.402†	37400.8	36174.1	499.05	µg/L	499.05	ppb	19:25:34
1	Zn 213.857†	18261.4	17052.9	490.40	µg/L	490.40	ppb	19:25:34
2	Sc RADIAL	103561.1	103561.1	105	%			19:24:31
2	Al 396.153Radial†	9405.7	9153.3	5025.0	µg/L	5025.0	ppb	19:24:31
2	Ca 317.933Radial†	13989.5	12994.2	4974.3	µg/L	4974.3	ppb	19:24:51
2	Fe 238.204 Radial†	590.3	538.2	5021.5	µg/L	5021.5	ppb	19:24:51
2	K 766.490 Radial†	8672.8	8053.9	4803.0	µg/L	4803.0	ppb	19:24:31
2	Mg 279.077 IEC†	452.7	423.9	5105.0	µg/L	5105.0	ppb	19:24:51
2	Na 589.592 Radial†	24177.8	22837.9	9812.0	µg/L	9812.0	ppb	19:24:31
2	Sr 421.552†	98371.2	93776.5	475.99	µg/L	475.99	ppb	19:24:31
2	Sc 361.383	1640233.7	1640233.7	103.00	%			19:26:01
2	Y 371.029	1142144.8	1142144.8	102.65	%			19:26:01
2	Ag 328.068†	54541.7	52729.6	485.65	µg/L	485.65	ppb	19:26:07
2	As 188.979†	270.3	260.8	515.78	µg/L	515.78	ppb	19:26:27
2	B 249.677†	9722.3	8100.5	458.61	µg/L	458.61	ppb	19:26:07
2	Ba 233.527†	18204.3	17701.2	490.69	µg/L	490.69	ppb	19:26:07
2	Be 313.107†	651801.4	635019.9	488.80	µg/L	488.80	ppb	19:26:01
2	Cd 226.502†	15675.1	15360.0	488.22	µg/L	488.22	ppb	19:26:07
2	Co 228.616†	9132.4	8852.2	492.87	µg/L	492.87	ppb	19:26:07
2	Cr 267.716†	18120.0	17512.7	492.30	µg/L	492.30	ppb	19:26:07
2	Cu 324.752†	68159.2	63510.0	488.35	µg/L	488.35	ppb	19:26:07
2	Mn 257.610†	128607.9	125421.0	495.11	µg/L	495.11	ppb	19:26:07
2	Mo 202.031†	4155.8	4030.1	504.08	µg/L	504.08	ppb	19:26:27
2	Ni 231.604†	7323.2	6819.9	517.51	µg/L	517.51	ppb	19:26:07
2	P 214.914†	1048.5	994.7	2473.6	µg/L	2473.6	ppb	19:26:27
2	Pb 220.353†	1545.2	1459.2	499.18	µg/L	499.18	ppb	19:26:27

2	S 181.975 Axial†	261.6	240.2	1000.1 µg/L	1000.1 ppb	19:26:27
2	Sb 206.836†	449.6	415.7	494.40 µg/L	494.40 ppb	19:26:27
2	Se 196.026†	401.2	374.4	518.83 µg/L	518.83 ppb	19:26:27
2	SiO2†	24784.9	22689.8	5317.2 µg/L	5317.2 ppb	19:26:07
2	Si 251.611†	29645.4	28425.3	2491.9 µg/L	2491.9 ppb	19:26:07
2	Sn 189.927†	1034.1	995.5	502.86 µg/L	502.86 ppb	19:26:27
2	Ti 334.940†	180605.2	175325.3	500.04 µg/L	500.04 ppb	19:26:01
2	Tl 190.801†	383.9	398.9	506.99 µg/L	506.99 ppb	19:26:27
2	U 409.014†	5165.4	4900.0	481.41 µg/L	481.41 ppb	19:26:07
2	V 292.402†	36989.1	36077.2	497.69 µg/L	497.69 ppb	19:26:07
2	Zn 213.857†	18145.0	17087.7	491.43 µg/L	491.43 ppb	19:26:07
3	Sc RADIAL	103358.6	103358.6	105 %		19:24:57
3	Al 396.153Radial†	9402.9	9168.3	5034.9 µg/L	5034.9 ppb	19:24:57
3	Ca 317.933Radial†	13976.8	13008.1	4979.6 µg/L	4979.6 ppb	19:25:17
3	Fe 238.204 Radial†	596.2	545.0	5083.7 µg/L	5083.7 ppb	19:25:17
3	K 766.490 Radial†	8786.7	8179.1	4877.7 µg/L	4877.7 ppb	19:24:57
3	Mg 279.077 IEC†	454.6	426.5	5135.6 µg/L	5135.6 ppb	19:25:17
3	Na 589.592 Radial†	24181.0	22886.3	9832.8 µg/L	9832.8 ppb	19:24:57
3	Sr 421.552†	98224.2	93819.9	476.21 µg/L	476.21 ppb	19:24:57
3	Sc 361.383	1637646.6	1637646.6	102.84 %		19:26:34
3	Y 371.029	1141123.1	1141123.1	102.56 %		19:26:34
3	Ag 328.068†	51694.6	50044.8	460.80 µg/L	460.80 ppb	19:26:40
3	As 188.979†	221.1	213.4	421.81 µg/L	421.81 ppb	19:27:00
3	B 249.677†	9248.2	7654.5	433.14 µg/L	433.14 ppb	19:26:40
3	Ba 233.527†	16880.2	16441.6	455.75 µg/L	455.75 ppb	19:26:40
3	Be 313.107†	604037.3	589574.9	453.81 µg/L	453.81 ppb	19:26:34
3	Cd 226.502†	14412.7	14156.5	449.91 µg/L	449.91 ppb	19:26:40
3	Co 228.616†	8314.8	8071.2	449.31 µg/L	449.31 ppb	19:26:40
3	Cr 267.716†	16121.6	15597.2	438.46 µg/L	438.46 ppb	19:26:40
3	Cu 324.752†	62499.3	58111.1	446.93 µg/L	446.93 ppb	19:26:40
3	Mn 257.610†	118626.9	115913.0	457.58 µg/L	457.58 ppb	19:26:40
3	Mo 202.031†	3456.3	3356.3	419.84 µg/L	419.84 ppb	19:27:00
3	Ni 231.604†	6683.2	6208.9	471.15 µg/L	471.15 ppb	19:26:40
3	P 214.914†	885.5	837.8	2079.1 µg/L	2079.1 ppb	19:27:00
3	Pb 220.353†	1343.4	1265.3	432.82 µg/L	432.82 ppb	19:27:00
3	S 181.975 Axial†	232.2	212.0	882.77 µg/L	882.77 ppb	19:27:00
3	Sb 206.836†	386.5	355.1	421.89 µg/L	421.89 ppb	19:27:00
3	Se 196.026†	345.7	321.0	446.91 µg/L	446.91 ppb	19:27:00
3	SiO2†	23668.3	21642.0	5071.7 µg/L	5071.7 ppb	19:26:40
3	Si 251.611†	28275.4	27138.6	2379.1 µg/L	2379.1 ppb	19:26:40
3	Sn 189.927†	847.1	815.2	411.85 µg/L	411.85 ppb	19:27:00
3	Ti 334.940†	171987.4	167222.6	476.92 µg/L	476.92 ppb	19:26:34
3	Tl 190.801†	341.7	358.5	455.88 µg/L	455.88 ppb	19:27:00
3	U 409.014†	4664.6	4421.1	434.25 µg/L	434.25 ppb	19:26:40
3	V 292.402†	33442.7	32685.5	450.62 µg/L	450.62 ppb	19:26:40
3	Zn 213.857†	16529.3	15544.5	446.99 µg/L	446.99 ppb	19:26:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1643968.4	103.24	%	0.553				0.54%
Sc RADIAL	103583.0	105	%	0.2				0.23%
Y 371.029	1145272.5	102.93	%	0.568				0.55%
Ag 328.068†	51827.7	477.31	µg/L	14.291	477.31	ppb	14.291	2.99%
QC value within limits for Ag 328.068 Recovery = 95.46%								
Al 396.153Radial†	9161.1	5029.8	µg/L	4.99	5029.8	ppb	4.99	0.10%
QC value within limits for Al 396.153Radial Recovery = 100.60%								
As 188.979†	242.9	480.29	µg/L	51.027	480.29	ppb	51.027	10.62%
QC value within limits for As 188.979 Recovery = 96.06%								
B 249.677†	7971.3	451.22	µg/L	15.749	451.22	ppb	15.749	3.49%
QC value within limits for B 249.677 Recovery = 90.24%								
Ba 233.527†	17300.2	479.57	µg/L	20.639	479.57	ppb	20.639	4.30%
QC value within limits for Ba 233.527 Recovery = 95.91%								
Be 313.107†	620792.6	477.85	µg/L	20.841	477.85	ppb	20.841	4.36%
QC value within limits for Be 313.107 Recovery = 95.57%								
Ca 317.933Radial†	13015.3	4982.4	µg/L	9.76	4982.4	ppb	9.76	0.20%
QC value within limits for Ca 317.933Radial Recovery = 99.65%								
Cd 226.502†	14992.7	476.53	µg/L	23.110	476.53	ppb	23.110	4.85%
QC value within limits for Cd 226.502 Recovery = 95.31%								
Co 228.616†	8602.5	478.95	µg/L	25.684	478.95	ppb	25.684	5.36%

```
   QC value within limits for Co 228.616  Recovery = 95.79%
Cr 267.716†            16926.0      475.81 µg/L        32.421      475.81 ppb         32.421   6.81%
   QC value within limits for Cr 267.716  Recovery = 95.16%
Cu 324.752†            61762.4      474.94 µg/L        24.269      474.94 ppb         24.269   5.11%
   QC value within limits for Cu 324.752  Recovery = 94.99%
Fe 238.204 Radial†       540.9      5046.7 µg/L         32.79      5046.7 ppb          32.79   0.65%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.93%
K 766.490 Radial†       8119.1      4841.9 µg/L         37.44      4841.9 ppb          37.44   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.84%
Mg 279.077 IEC†          424.4      5110.9 µg/L         22.38      5110.9 ppb          22.38   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.22%
Mn 257.610†           122100.0      482.00 µg/L        21.172      482.00 ppb         21.172   4.39%
   QC value within limits for Mn 257.610  Recovery = 96.40%
Mo 202.031†             3811.7      476.78 µg/L        49.321      476.78 ppb         49.321  10.34%
   QC value within limits for Mo 202.031  Recovery = 95.36%
Na 589.592 Radial†     22893.2      9835.8 µg/L         25.36      9835.8 ppb          25.36   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 98.36%
Ni 231.604†             6630.7      503.15 µg/L        27.764      503.15 ppb         27.764   5.52%
   QC value within limits for Ni 231.604  Recovery = 100.63%
P 214.914†               942.4      2342.1 µg/L        227.84      2342.1 ppb         227.84   9.73%
   QC value within limits for P 214.914  Recovery = 93.69%
Pb 220.353†             1396.7      477.77 µg/L        38.940      477.77 ppb         38.940   8.15%
   QC value within limits for Pb 220.353  Recovery = 95.55%
S 181.975 Axial†         229.6      956.02 µg/L        63.878      956.02 ppb         63.878   6.68%
   QC value within limits for S 181.975 Axial  Recovery = 95.60%
Sb 206.836†              394.2      468.66 µg/L        40.567      468.66 ppb         40.567   8.66%
   QC value within limits for Sb 206.836  Recovery = 93.73%
Se 196.026†              353.9      491.17 µg/L        38.733      491.17 ppb         38.733   7.89%
   QC value within limits for Se 196.026  Recovery = 98.23%
SiO2†                  22282.7      5221.8 µg/L        131.60      5221.8 ppb         131.60   2.52%
   QC value within limits for SiO2  Recovery = 97.65%
Si 251.611†            27916.9      2447.3 µg/L         60.01      2447.3 ppb          60.01   2.45%
   QC value within limits for Si 251.611  Recovery = 97.89%
Sn 189.927†              939.9      474.76 µg/L        54.576      474.76 ppb         54.576  11.50%
   QC value within limits for Sn 189.927  Recovery = 94.95%
Sr 421.552†            93863.9      476.44 µg/L         0.588      476.44 ppb          0.588   0.12%
   QC value within limits for Sr 421.552  Recovery = 95.29%
Ti 334.940†           171917.3      490.32 µg/L        11.993      490.32 ppb         11.993   2.45%
   QC value within limits for Ti 334.940  Recovery = 98.06%
Tl 190.801†              383.4      487.29 µg/L        27.495      487.29 ppb         27.495   5.64%
   QC value within limits for Tl 190.801  Recovery = 97.46%
U 409.014†              4754.0      467.03 µg/L        28.465      467.03 ppb         28.465   6.09%
   QC value within limits for U 409.014  Recovery = 93.41%
V 292.402†             34978.9      482.45 µg/L        27.577      482.45 ppb         27.577   5.72%
   QC value within limits for V 292.402  Recovery = 96.49%
Zn 213.857†            16561.7      476.27 µg/L        25.367      476.27 ppb         25.367   5.33%
   QC value within limits for Zn 213.857  Recovery = 95.25%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/27/2010 19:27:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	102477.9	102477.9	104	%			19:27:42
1	Al 396.153Radial†	-191.9	-12.3	-6.7676	µg/L	-6.7676	ppb	19:27:42
1	Ca 317.933Radial†	359.4	-15.9	-6.0962	µg/L	-6.0962	ppb	19:28:02
1	Fe 238.204 Radial†	29.3	2.8	26.473	µg/L	26.473	ppb	19:28:02
1	K 766.490 Radial†	244.6	9.3	5.5351	µg/L	5.5351	ppb	19:27:42
1	Mg 279.077 IEC†	12.9	4.1	49.610	µg/L	49.610	ppb	19:28:02
1	Na 589.592 Radial†	191.8	-61.4	-26.372	µg/L	-26.372	ppb	19:27:42
1	Sr 421.552†	139.4	-11.6	-0.0589	µg/L	-0.0589	ppb	19:27:42
1	Sc 361.383	1622439.7	1622439.7	101.89	%			19:29:04
1	Y 371.029	1135992.2	1135992.2	102.10	%			19:29:04
1	Ag 328.068†	226.3	0.4	0.0093	µg/L	0.0093	ppb	19:29:09
1	As 188.979†	3.0	1.3	2.6728	µg/L	2.6728	ppb	19:29:30
1	B 249.677†	1022.0	-335.2	-19.067	µg/L	-19.067	ppb	19:29:09
1	Ba 233.527†	-4.0	23.8	0.6595	µg/L	0.6595	ppb	19:29:30
1	Be 313.107†	-1771.2	485.7	0.3737	µg/L	0.3737	ppb	19:29:09
1	Cd 226.502†	-140.8	3.8	0.1171	µg/L	0.1171	ppb	19:29:30
1	Co 228.616†	19.5	5.2	0.2921	µg/L	0.2921	ppb	19:29:30
1	Cr 267.716†	101.9	21.0	0.5896	µg/L	0.5896	ppb	19:29:30
1	Cu 324.752†	2596.5	-113.2	-0.8640	µg/L	-0.8640	ppb	19:29:09
1	Mn 257.610†	-369.1	200.9	0.7912	µg/L	0.7912	ppb	19:29:30
1	Mo 202.031†	14.2	9.4	1.1812	µg/L	1.1812	ppb	19:29:30
1	Ni 231.604†	305.0	9.6	0.7306	µg/L	0.7306	ppb	19:29:30
1	P 214.914†	31.8	8.0	20.314	µg/L	20.314	ppb	19:29:30
1	Pb 220.353†	41.4	-0.4	-0.1215	µg/L	-0.1215	ppb	19:29:30
1	S 181.975 Axial†	13.0	-1.0	-4.2987	µg/L	-4.2987	ppb	19:29:30
1	Sb 206.836†	22.8	1.6	1.9607	µg/L	1.9607	ppb	19:29:30
1	Se 196.026†	14.5	-0.8	-1.0606	µg/L	-1.0606	ppb	19:29:30
1	SiO2†	1411.9	13.4	3.1299	µg/L	3.1299	ppb	19:29:09
1	Si 251.611†	443.8	79.9	7.0014	µg/L	7.0014	ppb	19:29:30
1	Sn 189.927†	6.2	-2.3	-1.1631	µg/L	-1.1631	ppb	19:29:30
1	Ti 334.940†	264.6	245.9	0.6979	µg/L	0.6979	ppb	19:29:09
1	Tl 190.801†	-26.0	0.8	1.0062	µg/L	1.0062	ppb	19:29:30
1	U 409.014†	162.8	45.1	4.4347	µg/L	4.4347	ppb	19:29:09
1	V 292.402†	-124.3	44.6	0.6245	µg/L	0.6245	ppb	19:29:09
1	Zn 213.857†	552.3	13.9	0.3981	µg/L	0.3981	ppb	19:29:30
2	Sc RADIAL	101894.4	101894.4	103	%			19:28:08
2	Al 396.153Radial†	-148.0	29.3	16.074	µg/L	16.074	ppb	19:28:08
2	Ca 317.933Radial†	361.1	-12.3	-4.7216	µg/L	-4.7216	ppb	19:28:28
2	Fe 238.204 Radial†	29.3	3.0	27.607	µg/L	27.607	ppb	19:28:28
2	K 766.490 Radial†	252.0	17.9	10.648	µg/L	10.648	ppb	19:28:08
2	Mg 279.077 IEC†	6.4	-2.1	-25.630	µg/L	-25.630	ppb	19:28:28
2	Na 589.592 Radial†	194.9	-57.4	-24.643	µg/L	-24.643	ppb	19:28:08
2	Sr 421.552†	160.6	9.8	0.0497	µg/L	0.0497	ppb	19:28:08
2	Sc 361.383	1617531.1	1617531.1	101.58	%			19:29:36
2	Y 371.029	1131708.1	1131708.1	101.71	%			19:29:36
2	Ag 328.068†	297.1	70.7	0.6615	µg/L	0.6615	ppb	19:29:41
2	As 188.979†	-2.7	-4.3	-8.6147	µg/L	-8.6147	ppb	19:30:02
2	B 249.677†	1029.7	-324.6	-18.462	µg/L	-18.462	ppb	19:29:41
2	Ba 233.527†	34.9	62.1	1.7218	µg/L	1.7218	ppb	19:30:02
2	Be 313.107†	-714.7	1520.4	1.1701	µg/L	1.1701	ppb	19:29:41
2	Cd 226.502†	-92.1	51.2	1.6267	µg/L	1.6267	ppb	19:30:02
2	Co 228.616†	40.2	25.7	1.4283	µg/L	1.4283	ppb	19:30:02
2	Cr 267.716†	159.5	78.0	2.1929	µg/L	2.1929	ppb	19:30:02
2	Cu 324.752†	2753.8	49.4	0.3840	µg/L	0.3840	ppb	19:29:41
2	Mn 257.610†	-5.9	557.3	2.2036	µg/L	2.2036	ppb	19:30:02
2	Mo 202.031†	19.9	15.1	1.8923	µg/L	1.8923	ppb	19:30:02
2	Ni 231.604†	310.6	16.0	1.2163	µg/L	1.2163	ppb	19:30:02
2	P 214.914†	30.0	6.3	15.923	µg/L	15.923	ppb	19:30:02
2	Pb 220.353†	44.4	2.8	0.9541	µg/L	0.9541	ppb	19:30:02

2	S 181.975 Axial†	15.7	1.7	6.9774 µg/L	6.9774 ppb	19:30:02
2	Sb 206.836†	26.2	5.1	6.0195 µg/L	6.0195 ppb	19:30:02
2	Se 196.026†	22.2	6.7	9.2080 µg/L	9.2080 ppb	19:30:02
2	SiO2†	1475.1	79.8	18.702 µg/L	18.702 ppb	19:29:41
2	Si 251.611†	530.3	166.3	14.582 µg/L	14.582 ppb	19:30:02
2	Sn 189.927†	15.1	6.5	3.2575 µg/L	3.2575 ppb	19:30:02
2	Ti 334.940†	658.6	634.6	1.8131 µg/L	1.8131 ppb	19:29:41
2	Tl 190.801†	-27.8	-1.1	-1.3585 µg/L	-1.3585 ppb	19:30:02
2	U 409.014†	68.4	-47.4	-4.6658 µg/L	-4.6658 ppb	19:29:41
2	V 292.402†	-25.5	141.5	1.9455 µg/L	1.9455 ppb	19:29:41
2	Zn 213.857†	600.3	62.8	1.8144 µg/L	1.8144 ppb	19:30:02
3	Sc RADIAL	101930.4	101930.4	103 %		19:28:34
3	Al 396.153Radial†	-186.7	-8.2	-4.6077 µg/L	-4.6077 ppb	19:28:34
3	Ca 317.933Radial†	367.7	-6.0	-2.2982 µg/L	-2.2982 ppb	19:28:54
3	Fe 238.204 Radial†	28.2	1.9	17.937 µg/L	17.937 ppb	19:28:54
3	K 766.490 Radial†	314.1	78.0	46.517 µg/L	46.517 ppb	19:28:34
3	Mg 279.077 IEC†	6.3	-2.2	-26.954 µg/L	-26.954 ppb	19:28:54
3	Na 589.592 Radial†	186.3	-65.7	-28.243 µg/L	-28.243 ppb	19:28:34
3	Sr 421.552†	146.1	-4.3	-0.0219 µg/L	-0.0219 ppb	19:28:34
3	Sc 361.383	1616393.4	1616393.4	101.51 %		19:30:07
3	Y 371.029	1129395.8	1129395.8	101.51 %		19:30:07
3	Ag 328.068†	510.1	280.8	2.5908 µg/L	2.5908 ppb	19:30:13
3	As 188.979†	2.9	1.2	2.3912 µg/L	2.3912 ppb	19:30:34
3	B 249.677†	1052.8	-301.1	-17.120 µg/L	-17.120 ppb	19:30:13
3	Ba 233.527†	96.6	122.9	3.4063 µg/L	3.4063 ppb	19:30:34
3	Be 313.107†	1820.9	4017.9	3.0924 µg/L	3.0924 ppb	19:30:13
3	Cd 226.502†	-40.3	102.2	3.2506 µg/L	3.2506 ppb	19:30:34
3	Co 228.616†	71.8	56.8	3.1634 µg/L	3.1634 ppb	19:30:34
3	Cr 267.716†	207.9	125.8	3.5358 µg/L	3.5358 ppb	19:30:34
3	Cu 324.752†	2951.2	245.7	1.8892 µg/L	1.8892 ppb	19:30:13
3	Mn 257.610†	373.1	930.7	3.6771 µg/L	3.6771 ppb	19:30:34
3	Mo 202.031†	40.3	35.2	4.3985 µg/L	4.3985 ppb	19:30:34
3	Ni 231.604†	334.5	39.8	3.0200 µg/L	3.0200 ppb	19:30:34
3	P 214.914†	35.7	11.9	30.000 µg/L	30.000 ppb	19:30:34
3	Pb 220.353†	45.0	3.4	1.1594 µg/L	1.1594 ppb	19:30:34
3	S 181.975 Axial†	17.9	3.9	16.103 µg/L	16.103 ppb	19:30:34
3	Sb 206.836†	23.3	2.2	2.6664 µg/L	2.6664 ppb	19:30:34
3	Se 196.026†	12.8	-2.5	-3.2615 µg/L	-3.2615 ppb	19:30:34
3	SiO2†	1537.0	141.8	33.223 µg/L	33.223 ppb	19:30:13
3	Si 251.611†	624.1	259.1	22.712 µg/L	22.712 ppb	19:30:34
3	Sn 189.927†	19.6	10.9	5.4726 µg/L	5.4726 ppb	19:30:34
3	Ti 334.940†	1460.3	1424.9	4.0687 µg/L	4.0687 ppb	19:30:13
3	Tl 190.801†	-22.4	4.2	5.3744 µg/L	5.3744 ppb	19:30:34
3	U 409.014†	188.2	70.7	6.9550 µg/L	6.9550 ppb	19:30:13
3	V 292.402†	86.5	251.8	3.4835 µg/L	3.4835 ppb	19:30:13
3	Zn 213.857†	644.0	106.3	3.0641 µg/L	3.0641 ppb	19:30:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1618788.0	101.66	%	0.202				0.20%
Sc RADIAL	102100.9	103	%	0.3				0.32%
Y 371.029	1132365.4	101.77	%	0.301				0.30%
Ag 328.068†	117.3	1.0872	µg/L	1.34240	1.0872	ppb	1.34240	123.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.9	1.5662	µg/L	12.61029	1.5662	ppb	12.61029	805.18%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-1.1836	µg/L	6.43707	-1.1836	ppb	6.43707	543.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-320.3	-18.216	µg/L	0.9967	-18.216	ppb	0.9967	5.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	69.6	1.9292	µg/L	1.38509	1.9292	ppb	1.38509	71.80%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	2008.0	1.5454	µg/L	1.39764	1.5454	ppb	1.39764	90.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-11.4	-4.3720	µg/L	1.92301	-4.3720	ppb	1.92301	43.98%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	52.4	1.6648	µg/L	1.56707	1.6648	ppb	1.56707	94.13%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	29.2	1.6280	µg/L	1.44601	1.6280	ppb	1.44601	88.82%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                74.9      2.1061 µg/L       1.47501      2.1061 ppb        1.47501  70.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                60.6      0.4697 µg/L       1.37857      0.4697 ppb        1.37857 293.49%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.6      24.006 µg/L        5.2859      24.006 ppb         5.2859  22.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          35.0      20.900 µg/L       22.3316      20.900 ppb        22.3316 106.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.1     -0.9916 µg/L      43.82689     -0.9916 ppb       43.82689 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               562.9      2.2240 µg/L       1.44308      2.2240 ppb        1.44308  64.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                19.9      2.4906 µg/L       1.69007      2.4906 ppb        1.69007  67.86%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -61.5     -26.420 µg/L        1.8006     -26.420 ppb         1.8006   6.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                21.8      1.6556 µg/L       1.20629      1.6556 ppb        1.20629  72.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  8.7      22.079 µg/L        7.2022      22.079 ppb         7.2022  32.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.9      0.6640 µg/L       0.68796      0.6640 ppb        0.68796 103.61%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      6.2604 µg/L      10.21951      6.2604 ppb       10.21951 163.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.0      3.5489 µg/L       2.16854      3.5489 ppb        2.16854  61.10%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      1.6286 µg/L       6.65555      1.6286 ppb        6.65555 408.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      78.3      18.352 µg/L       15.0496      18.352 ppb        15.0496  82.01%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               168.4      14.765 µg/L        7.8571      14.765 ppb         7.8571  53.21%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.0      2.5223 µg/L       3.37836      2.5223 ppb        3.37836 133.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.0     -0.0104 µg/L       0.05521     -0.0104 ppb        0.05521 532.41%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               768.5      2.1932 µg/L       1.71728      2.1932 ppb        1.71728  78.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.3      1.6740 µg/L       3.41578      1.6740 ppb        3.41578 204.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 22.8      2.2413 µg/L       6.11300      2.2413 ppb        6.11300 272.74%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                146.0      2.0179 µg/L       1.43088      2.0179 ppb        1.43088  70.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                61.0      1.7589 µg/L       1.33385      1.7589 ppb        1.33385  75.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 32
Sample ID: 1202042554|952945|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 344
Date Collected: 2/27/2010 19:30:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042554|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	99407.8	99407.8	101	%			19:31:21
1	Al 396.153Radial†	-145.4	28.3	15.552	µg/L	15.552	ppb	19:31:21
1	Ca 317.933Radial†	439.4	74.3	28.456	µg/L	28.456	ppb	19:31:42
1	Fe 238.204 Radial†	32.2	6.6	61.469	µg/L	61.469	ppb	19:31:42
1	K 766.490 Radial†	264.1	36.0	21.482	µg/L	21.482	ppb	19:31:21
1	Mg 279.077 IEC†	6.9	-1.5	-17.912	µg/L	-17.912	ppb	19:31:42
1	Na 589.592 Radial†	254.1	6.2	2.6710	µg/L	2.6710	ppb	19:31:21
1	Sr 421.552†	156.5	9.6	0.0487	µg/L	0.0487	ppb	19:31:21
1	Sc 361.383	1604756.1	1604756.1	100.78	%			19:32:43
1	Y 371.029	1120127.8	1120127.8	100.67	%			19:32:43
1	Ag 328.068†	224.9	1.4	0.0220	µg/L	0.0220	ppb	19:32:49
1	As 188.979†	-1.5	-3.1	-6.2289	µg/L	-6.2289	ppb	19:33:09
1	B 249.677†	1170.4	-176.9	-10.087	µg/L	-10.087	ppb	19:32:49
1	Ba 233.527†	-14.6	13.2	0.3667	µg/L	0.3667	ppb	19:33:09
1	Be 313.107†	-2147.1	93.5	0.0717	µg/L	0.0717	ppb	19:32:49
1	Cd 226.502†	-137.8	5.2	0.1581	µg/L	0.1581	ppb	19:33:09
1	Co 228.616†	12.0	-2.0	-0.1122	µg/L	-0.1122	ppb	19:33:09
1	Cr 267.716†	99.6	19.8	0.5572	µg/L	0.5572	ppb	19:33:09
1	Cu 324.752†	2616.2	-65.6	-0.4919	µg/L	-0.4919	ppb	19:32:49
1	Mn 257.610†	-323.3	242.3	0.9614	µg/L	0.9614	ppb	19:33:09
1	Mo 202.031†	7.0	2.4	0.3022	µg/L	0.3022	ppb	19:33:09
1	Ni 231.604†	285.4	-6.5	-0.4946	µg/L	-0.4946	ppb	19:33:09
1	P 214.914†	29.3	5.8	14.739	µg/L	14.739	ppb	19:33:09
1	Pb 220.353†	42.9	1.6	0.5627	µg/L	0.5627	ppb	19:33:09
1	S 181.975 Axial†	18.1	4.1	17.144	µg/L	17.144	ppb	19:33:09
1	Sb 206.836†	21.4	0.5	0.5556	µg/L	0.5556	ppb	19:33:09
1	Se 196.026†	11.0	-4.1	-5.3685	µg/L	-5.3685	ppb	19:33:09
1	SiO2†	1630.3	245.3	57.482	µg/L	57.482	ppb	19:32:49
1	Si 251.611†	667.8	307.0	26.909	µg/L	26.909	ppb	19:33:09
1	Sn 189.927†	8.8	0.3	0.1473	µg/L	0.1473	ppb	19:33:09
1	Ti 334.940†	267.9	252.1	0.7214	µg/L	0.7214	ppb	19:32:49
1	Tl 190.801†	-23.5	3.0	3.7535	µg/L	3.7535	ppb	19:33:09
1	U 409.014†	15.5	-99.4	-9.7934	µg/L	-9.7934	ppb	19:32:49
1	V 292.402†	-114.1	53.4	0.7242	µg/L	0.7242	ppb	19:32:49
1	Zn 213.857†	647.8	114.6	3.3215	µg/L	3.3215	ppb	19:33:09
2	Sc RADIAL	100424.1	100424.1	102	%			19:31:47
2	Al 396.153Radial†	-170.6	5.0	2.7169	µg/L	2.7169	ppb	19:31:47
2	Ca 317.933Radial†	432.2	62.8	24.059	µg/L	24.059	ppb	19:32:08
2	Fe 238.204 Radial†	31.1	5.1	47.782	µg/L	47.782	ppb	19:32:08
2	K 766.490 Radial†	167.4	-61.9	-36.917	µg/L	-36.917	ppb	19:31:47
2	Mg 279.077 IEC†	4.3	-4.1	-49.294	µg/L	-49.294	ppb	19:32:08
2	Na 589.592 Radial†	263.0	12.5	5.3678	µg/L	5.3678	ppb	19:31:47
2	Sr 421.552†	208.0	58.7	0.2982	µg/L	0.2982	ppb	19:31:47
2	Sc 361.383	1601215.6	1601215.6	100.55	%			19:33:15
2	Y 371.029	1116510.1	1116510.1	100.35	%			19:33:15
2	Ag 328.068†	202.4	-20.5	-0.1800	µg/L	-0.1800	ppb	19:33:20
2	As 188.979†	4.7	3.0	6.0057	µg/L	6.0057	ppb	19:33:41
2	B 249.677†	1146.6	-198.0	-11.277	µg/L	-11.277	ppb	19:33:20
2	Ba 233.527†	-6.9	20.9	0.5782	µg/L	0.5782	ppb	19:33:41
2	Be 313.107†	-2159.2	76.7	0.0587	µg/L	0.0587	ppb	19:33:20
2	Cd 226.502†	-136.5	6.2	0.1910	µg/L	0.1910	ppb	19:33:41
2	Co 228.616†	12.1	-1.9	-0.1069	µg/L	-0.1069	ppb	19:33:41
2	Cr 267.716†	100.1	20.5	0.5754	µg/L	0.5754	ppb	19:33:41
2	Cu 324.752†	2604.2	-71.8	-0.5422	µg/L	-0.5422	ppb	19:33:20
2	Mn 257.610†	-337.5	227.5	0.9041	µg/L	0.9041	ppb	19:33:41
2	Mo 202.031†	7.6	3.0	0.3787	µg/L	0.3787	ppb	19:33:41
2	Ni 231.604†	283.4	-7.8	-0.5951	µg/L	-0.5951	ppb	19:33:41
2	P 214.914†	27.2	3.8	9.6544	µg/L	9.6544	ppb	19:33:41
2	Pb 220.353†	44.6	3.4	1.1494	µg/L	1.1494	ppb	19:33:41

2	S 181.975 Axial†	19.8	5.9	24.497 µg/L	24.497 ppb	19:33:41
2	Sb 206.836†	21.1	0.2	0.2595 µg/L	0.2595 ppb	19:33:41
2	Se 196.026†	13.7	-1.5	-1.7751 µg/L	-1.7751 ppb	19:33:41
2	SiO2†	1647.4	265.9	62.315 µg/L	62.315 ppb	19:33:20
2	Si 251.611†	698.2	338.6	29.685 µg/L	29.685 ppb	19:33:41
2	Sn 189.927†	11.6	3.1	1.5339 µg/L	1.5339 ppb	19:33:41
2	Ti 334.940†	298.1	282.7	0.8112 µg/L	0.8112 ppb	19:33:20
2	Tl 190.801†	-26.5	-0.1	-0.1076 µg/L	-0.1076 ppb	19:33:41
2	U 409.014†	145.8	30.2	2.9685 µg/L	2.9685 ppb	19:33:20
2	V 292.402†	-122.4	44.9	0.6210 µg/L	0.6210 ppb	19:33:20
2	Zn 213.857†	639.7	108.0	3.1339 µg/L	3.1339 ppb	19:33:41
3	Sc RADIAL	100337.6	100337.6	101 %		19:32:13
3	Al 396.153Radial†	-171.1	4.3	2.3736 µg/L	2.3736 ppb	19:32:13
3	Ca 317.933Radial†	439.9	70.8	27.095 µg/L	27.095 ppb	19:32:33
3	Fe 238.204 Radial†	33.2	7.3	68.154 µg/L	68.154 ppb	19:32:33
3	K 766.490 Radial†	246.8	16.6	9.8853 µg/L	9.8853 ppb	19:32:13
3	Mg 279.077 IEC†	5.8	-2.7	-31.981 µg/L	-31.981 ppb	19:32:33
3	Na 589.592 Radial†	285.9	35.2	15.143 µg/L	15.143 ppb	19:32:13
3	Sr 421.552†	186.7	37.9	0.1921 µg/L	0.1921 ppb	19:32:13
3	Sc 361.383	1596565.3	1596565.3	100.26 %		19:33:47
3	Y 371.029	1113888.1	1113888.1	100.11 %		19:33:47
3	Ag 328.068†	217.1	-5.3	-0.0381 µg/L	-0.0381 ppb	19:33:52
3	As 188.979†	1.0	-0.6	-1.2550 µg/L	-1.2550 ppb	19:34:12
3	B 249.677†	1137.1	-204.2	-11.640 µg/L	-11.640 ppb	19:33:52
3	Ba 233.527†	-11.7	16.1	0.4460 µg/L	0.4460 ppb	19:34:12
3	Be 313.107†	-2077.2	152.3	0.1169 µg/L	0.1169 ppb	19:33:52
3	Cd 226.502†	-136.5	5.8	0.1772 µg/L	0.1772 ppb	19:34:12
3	Co 228.616†	11.7	-2.3	-0.1285 µg/L	-0.1285 ppb	19:34:12
3	Cr 267.716†	80.1	0.9	0.0246 µg/L	0.0246 ppb	19:34:12
3	Cu 324.752†	2592.4	-76.1	-0.5709 µg/L	-0.5709 ppb	19:33:52
3	Mn 257.610†	-352.5	211.6	0.8415 µg/L	0.8415 ppb	19:34:12
3	Mo 202.031†	2.8	-1.7	-0.2064 µg/L	-0.2064 ppb	19:34:12
3	Ni 231.604†	293.4	2.9	0.2213 µg/L	0.2213 ppb	19:34:12
3	P 214.914†	30.1	6.7	17.094 µg/L	17.094 ppb	19:34:12
3	Pb 220.353†	26.4	-14.6	-4.9998 µg/L	-4.9998 ppb	19:34:12
3	S 181.975 Axial†	14.4	0.6	2.2912 µg/L	2.2912 ppb	19:34:12
3	Sb 206.836†	20.9	0.1	0.1648 µg/L	0.1648 ppb	19:34:12
3	Se 196.026†	13.6	-1.5	-1.7911 µg/L	-1.7911 ppb	19:34:12
3	SiO2†	1644.1	267.4	62.661 µg/L	62.661 ppb	19:33:52
3	Si 251.611†	697.0	339.4	29.757 µg/L	29.757 ppb	19:34:12
3	Sn 189.927†	11.5	3.0	1.5036 µg/L	1.5036 ppb	19:34:12
3	Ti 334.940†	305.1	290.5	0.8321 µg/L	0.8321 ppb	19:33:52
3	Tl 190.801†	-31.3	-4.9	-6.1644 µg/L	-6.1644 ppb	19:34:12
3	U 409.014†	74.9	-40.0	-3.9497 µg/L	-3.9497 ppb	19:33:52
3	V 292.402†	-112.8	54.1	0.7343 µg/L	0.7343 ppb	19:33:52
3	Zn 213.857†	641.5	111.6	3.2329 µg/L	3.2329 ppb	19:34:12

Mean Data: 1202042554|952945|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1600845.7	100.53	%	0.258				0.26%
Sc RADIAL	100056.5	101	%	0.6				0.56%
Y 371.029	1116842.0	100.38	%	0.282				0.28%
Ag 328.068†	-8.1	-0.0654	µg/L	0.10375	-0.0654	ppb	0.10375	158.72%
Al 396.153Radial†	12.5	6.8810	µg/L	7.51165	6.8810	ppb	7.51165	109.17%
As 188.979†	-0.2	-0.4927	µg/L	6.15282	-0.4927	ppb	6.15282	>999.9%
B 249.677†	-193.0	-11.001	µg/L	0.8125	-11.001	ppb	0.8125	7.39%
Ba 233.527†	16.7	0.4636	µg/L	0.10685	0.4636	ppb	0.10685	23.05%
Be 313.107†	107.5	0.0825	µg/L	0.03055	0.0825	ppb	0.03055	37.04%
Ca 317.933Radial†	69.3	26.537	µg/L	2.2513	26.537	ppb	2.2513	8.48%
Cd 226.502†	5.7	0.1754	µg/L	0.01655	0.1754	ppb	0.01655	9.43%
Co 228.616†	-2.1	-0.1159	µg/L	0.01125	-0.1159	ppb	0.01125	9.71%
Cr 267.716†	13.7	0.3857	µg/L	0.31291	0.3857	ppb	0.31291	81.12%
Cu 324.752†	-71.2	-0.5350	µg/L	0.03997	-0.5350	ppb	0.03997	7.47%
Fe 238.204 Radial†	6.4	59.135	µg/L	10.3845	59.135	ppb	10.3845	17.56%
K 766.490 Radial†	-3.1	-1.8497	µg/L	30.91755	-1.8497	ppb	30.91755	>999.9%
Mg 279.077 IEC†	-2.7	-33.062	µg/L	15.7189	-33.062	ppb	15.7189	47.54%
Mn 257.610†	227.1	0.9023	µg/L	0.05997	0.9023	ppb	0.05997	6.65%
Mo 202.031†	1.2	0.1582	µg/L	0.31807	0.1582	ppb	0.31807	201.10%
Na 589.592 Radial†	18.0	7.7274	µg/L	6.56239	7.7274	ppb	6.56239	84.92%

Ni 231.604†	-3.8	-0.2895	µg/L	0.44515	-0.2895	ppb	0.44515 153.78%
P 214.914†	5.4	13.829	µg/L	3.8024	13.829	ppb	3.8024 27.50%
Pb 220.353†	-3.2	-1.0959	µg/L	3.39356	-1.0959	ppb	3.39356 309.67%
S 181.975 Axial†	3.5	14.644	µg/L	11.3119	14.644	ppb	11.3119 77.25%
Sb 206.836†	0.3	0.3266	µg/L	0.20390	0.3266	ppb	0.20390 62.43%
Se 196.026†	-2.4	-2.9783	µg/L	2.07003	-2.9783	ppb	2.07003 69.50%
SiO2†	259.5	60.819	µg/L	2.8953	60.819	ppb	2.8953 4.76%
Si 251.611†	328.3	28.783	µg/L	1.6239	28.783	ppb	1.6239 5.64%
Sn 189.927†	2.1	1.0616	µg/L	0.79193	1.0616	ppb	0.79193 74.60%
Sr 421.552†	35.4	0.1797	µg/L	0.12522	0.1797	ppb	0.12522 69.70%
Ti 334.940†	275.1	0.7882	µg/L	0.05879	0.7882	ppb	0.05879 7.46%
Tl 190.801†	-0.7	-0.8395	µg/L	4.99925	-0.8395	ppb	4.99925 595.50%
U 409.014†	-36.4	-3.5915	µg/L	6.38846	-3.5915	ppb	6.38846 177.87%
V 292.402†	50.8	0.6932	µg/L	0.06272	0.6932	ppb	0.06272 9.05%
Zn 213.857†	111.4	3.2294	µg/L	0.09390	3.2294	ppb	0.09390 2.91%

Sequence No.: 33
Sample ID: 1202042559|952945|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 345
Date Collected: 2/27/2010 19:34:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042559|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	103379.7	103379.7	105	%			19:34:55
1	Al 396.153Radial†	182028.1	174274.2	95859	µg/L	95859	ppb	19:34:55
1	Ca 317.933Radial†	292763.4	279651.5	107050	µg/L	107050	ppb	19:34:55
1	Fe 238.204 Radial†	22184.6	21193.0	197350	µg/L	197350	ppb	19:35:00
1	K 766.490 Radial†	75571.7	72054.0	42970	µg/L	42970	ppb	19:34:55
1	Mg 279.077 IEC†	3587.9	3423.3	41001	µg/L	41001	ppb	19:35:00
1	Na 589.592 Radial†	26443.8	25045.8	10761	µg/L	10761	ppb	19:34:55
1	Sr 421.552†	488754.3	467324.1	2372.0	µg/L	2372.0	ppb	19:34:55
1	Sc 361.383	1624845.4	1624845.4	102.04	%			19:35:39
1	Y 371.029	1159222.9	1159222.9	104.19	%			19:35:39
1	Ag 328.068†	35231.1	34305.9	337.48	µg/L	337.48	ppb	19:35:39
1	As 188.979†	622.1	608.0	1169.3	µg/L	1169.3	ppb	19:35:59
1	B 249.677†	30232.5	28290.7	1509.1	µg/L	1509.1	ppb	19:35:39
1	Ba 233.527†	76748.8	75244.3	2084.4	µg/L	2084.4	ppb	19:35:39
1	Be 313.107†	1125938.7	1105684.5	849.09	µg/L	849.09	ppb	19:35:39
1	Cd 226.502†	20940.7	20664.5	636.07	µg/L	636.07	ppb	19:35:59
1	Co 228.616†	18011.3	17637.9	970.94	µg/L	970.94	ppb	19:35:59
1	Cr 267.716†	91930.7	90016.4	2529.7	µg/L	2529.7	ppb	19:35:39
1	Cu 324.752†	263182.2	255266.3	1996.1	µg/L	1996.1	ppb	19:35:39
1	Mn 257.610†	1485887.2	1456786.1	5760.3	µg/L	5760.3	ppb	19:35:39
1	Mo 202.031†	4542.7	4447.5	563.58	µg/L	563.58	ppb	19:35:59
1	Ni 231.604†	20196.5	19503.6	1482.9	µg/L	1482.9	ppb	19:35:59
1	P 214.914†	3799.3	3700.2	9053.2	µg/L	9053.2	ppb	19:35:59
1	Pb 220.353†	2760.2	2664.1	919.33	µg/L	919.33	ppb	19:35:59
1	S 181.975 Axial†	962.1	929.1	3868.8	µg/L	3868.8	ppb	19:35:59
1	Sb 206.836†	1353.1	1305.3	1523.0	µg/L	1523.0	ppb	19:35:59
1	Se 196.026†	2285.1	2224.4	3622.1	µg/L	3622.1	ppb	19:35:59
1	SiO2†	217040.4	211335.0	49525	µg/L	49525	ppb	19:35:39
1	Si 251.611†	268990.0	263264.2	23079	µg/L	23079	ppb	19:35:39
1	Sn 189.927†	2384.9	2328.8	1168.3	µg/L	1168.3	ppb	19:35:59
1	Ti 334.940†	2189544.2	2145818.5	6122.5	µg/L	6122.5	ppb	19:35:39
1	Tl 190.801†	1025.1	1030.9	1376.9	µg/L	1376.9	ppb	19:35:59
1	U 409.014†	-2221.2	-2291.5	-259.56	µg/L	-259.56	ppb	19:35:39
1	V 292.402†	98502.5	96702.6	1335.9	µg/L	1335.9	ppb	19:35:39
1	Zn 213.857†	220160.8	215237.4	6214.0	µg/L	6214.0	ppb	19:35:39
2	Sc RADIAL	104345.5	104345.5	106	%			19:35:06
2	Al 396.153Radial†	183848.4	174387.6	95921	µg/L	95921	ppb	19:35:06
2	Ca 317.933Radial†	296041.0	280165.6	107250	µg/L	107250	ppb	19:35:06
2	Fe 238.204 Radial†	22045.8	20865.1	194300	µg/L	194300	ppb	19:35:12
2	K 766.490 Radial†	76211.3	71991.1	42933	µg/L	42933	ppb	19:35:06
2	Mg 279.077 IEC†	3587.5	3391.2	40618	µg/L	40618	ppb	19:35:12
2	Na 589.592 Radial†	26706.4	25060.5	10767	µg/L	10767	ppb	19:35:06
2	Sr 421.552†	494217.3	468174.0	2376.4	µg/L	2376.4	ppb	19:35:06
2	Sc 361.383	1635856.3	1635856.3	102.73	%			19:36:09
2	Y 371.029	1168695.7	1168695.7	105.04	%			19:36:09
2	Ag 328.068†	35435.8	34272.8	336.93	µg/L	336.93	ppb	19:36:09
2	As 188.979†	616.8	598.7	1151.2	µg/L	1151.2	ppb	19:36:30
2	B 249.677†	30513.0	28364.3	1514.9	µg/L	1514.9	ppb	19:36:09
2	Ba 233.527†	77301.5	75276.1	2085.3	µg/L	2085.3	ppb	19:36:09
2	Be 313.107†	1134336.4	1106431.8	849.66	µg/L	849.66	ppb	19:36:09
2	Cd 226.502†	20901.5	20488.2	630.80	µg/L	630.80	ppb	19:36:30
2	Co 228.616†	17982.6	17491.1	962.76	µg/L	962.76	ppb	19:36:30
2	Cr 267.716†	92766.1	90223.1	2535.5	µg/L	2535.5	ppb	19:36:09
2	Cu 324.752†	264931.3	255232.9	1995.3	µg/L	1995.3	ppb	19:36:09
2	Mn 257.610†	1494258.5	1455133.3	5753.6	µg/L	5753.6	ppb	19:36:09
2	Mo 202.031†	4539.2	4414.2	559.29	µg/L	559.29	ppb	19:36:30
2	Ni 231.604†	20172.0	19346.5	1470.9	µg/L	1470.9	ppb	19:36:30
2	P 214.914†	3790.8	3666.9	8971.3	µg/L	8971.3	ppb	19:36:30
2	Pb 220.353†	2758.0	2643.8	912.30	µg/L	912.30	ppb	19:36:30

2	S 181.975 Axial†	956.7	917.5	3820.6	µg/L	3820.6	ppb	19:36:30
2	Sb 206.836†	1350.7	1294.1	1509.6	µg/L	1509.6	ppb	19:36:30
2	Se 196.026†	2308.6	2232.2	3622.8	µg/L	3622.8	ppb	19:36:30
2	SiO2†	219163.0	211969.5	49674	µg/L	49674	ppb	19:36:09
2	Si 251.611†	271456.9	263891.2	23134	µg/L	23134	ppb	19:36:09
2	Sn 189.927†	2378.9	2307.3	1157.5	µg/L	1157.5	ppb	19:36:30
2	Ti 334.940†	2203806.0	2145257.9	6120.9	µg/L	6120.9	ppb	19:36:09
2	Tl 190.801†	1007.2	1006.7	1346.0	µg/L	1346.0	ppb	19:36:30
2	U 409.014†	-2053.5	-2113.7	-241.64	µg/L	-241.64	ppb	19:36:09
2	V 292.402†	99109.0	96643.2	1334.9	µg/L	1334.9	ppb	19:36:09
2	Zn 213.857†	221682.9	215266.7	6215.1	µg/L	6215.1	ppb	19:36:09
3	Sc RADIAL	103617.3	103617.3	105	%			19:35:18
3	Al 396.153Radial†	182540.5	174363.9	95908	µg/L	95908	ppb	19:35:18
3	Ca 317.933Radial†	293250.2	279474.0	106980	µg/L	106980	ppb	19:35:18
3	Fe 238.204 Radial†	22107.0	21070.4	196210	µg/L	196210	ppb	19:35:23
3	K 766.490 Radial†	75685.1	71996.5	42936	µg/L	42936	ppb	19:35:18
3	Mg 279.077 IEC†	3581.1	3409.0	40830	µg/L	40830	ppb	19:35:23
3	Na 589.592 Radial†	26508.6	25049.6	10762	µg/L	10762	ppb	19:35:18
3	Sr 421.552†	490227.1	467657.6	2373.7	µg/L	2373.7	ppb	19:35:18
3	Sc 361.383	1638257.8	1638257.8	102.88	%			19:36:40
3	Y 371.029	1168271.2	1168271.2	105.00	%			19:36:40
3	Ag 328.068†	35510.3	34294.7	337.29	µg/L	337.29	ppb	19:36:40
3	As 188.979†	626.6	607.4	1168.3	µg/L	1168.3	ppb	19:37:01
3	B 249.677†	30553.7	28360.3	1513.7	µg/L	1513.7	ppb	19:36:40
3	Ba 233.527†	77584.6	75440.9	2089.9	µg/L	2089.9	ppb	19:36:40
3	Be 313.107†	1136547.2	1106962.1	850.07	µg/L	850.07	ppb	19:36:40
3	Cd 226.502†	20905.8	20462.6	629.77	µg/L	629.77	ppb	19:37:01
3	Co 228.616†	17953.2	17436.9	959.73	µg/L	959.73	ppb	19:37:01
3	Cr 267.716†	92839.1	90161.7	2533.8	µg/L	2533.8	ppb	19:36:40
3	Cu 324.752†	264936.3	254859.7	1992.8	µg/L	1992.8	ppb	19:36:40
3	Mn 257.610†	1499221.4	1457825.0	5764.3	µg/L	5764.3	ppb	19:36:40
3	Mo 202.031†	4536.0	4404.5	558.16	µg/L	558.16	ppb	19:37:01
3	Ni 231.604†	20136.1	19282.8	1466.1	µg/L	1466.1	ppb	19:37:01
3	P 214.914†	3803.4	3673.7	8987.2	µg/L	8987.2	ppb	19:37:01
3	Pb 220.353†	2743.7	2626.0	906.26	µg/L	906.26	ppb	19:37:01
3	S 181.975 Axial†	959.5	918.9	3826.2	µg/L	3826.2	ppb	19:37:01
3	Sb 206.836†	1338.7	1280.5	1493.5	µg/L	1493.5	ppb	19:37:01
3	Se 196.026†	2285.2	2206.1	3593.8	µg/L	3593.8	ppb	19:37:01
3	SiO2†	219099.6	211595.1	49586	µg/L	49586	ppb	19:36:40
3	Si 251.611†	271388.6	263437.3	23094	µg/L	23094	ppb	19:36:40
3	Sn 189.927†	2372.5	2297.7	1152.6	µg/L	1152.6	ppb	19:37:01
3	Ti 334.940†	2207476.4	2145680.8	6122.1	µg/L	6122.1	ppb	19:36:40
3	Tl 190.801†	1007.9	1006.0	1345.4	µg/L	1345.4	ppb	19:37:01
3	U 409.014†	-2055.5	-2112.7	-241.79	µg/L	-241.79	ppb	19:36:40
3	V 292.402†	99376.9	96762.2	1336.6	µg/L	1336.6	ppb	19:36:40
3	Zn 213.857†	222572.8	215815.4	6230.9	µg/L	6230.9	ppb	19:36:40

Mean Data: 1202042559|952945|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1632986.5	102.55	%	0.449				0.44%
Sc RADIAL	103780.8	105	%	0.5				0.48%
Y 371.029	1165396.6	104.74	%	0.481				0.46%
Ag 328.068†	34291.1	337.23	µg/L	0.276	337.23	ppb	0.276	0.08%
Al 396.153Radial†	174341.9	95896	µg/L	33.0	95896	ppb	33.0	0.03%
As 188.979†	604.7	1162.9	µg/L	10.15	1162.9	ppb	10.15	0.87%
B 249.677†	28338.4	1512.6	µg/L	3.05	1512.6	ppb	3.05	0.20%
Ba 233.527†	75320.4	2086.5	µg/L	2.92	2086.5	ppb	2.92	0.14%
Be 313.107†	1106359.5	849.61	µg/L	0.494	849.61	ppb	0.494	0.06%
Ca 317.933Radial†	279763.7	107100	µg/L	137.5	107100	ppb	137.5	0.13%
Cd 226.502†	20538.4	632.22	µg/L	3.382	632.22	ppb	3.382	0.54%
Co 228.616†	17521.9	964.47	µg/L	5.798	964.47	ppb	5.798	0.60%
Cr 267.716†	90133.7	2533.0	µg/L	2.98	2533.0	ppb	2.98	0.12%
Cu 324.752†	255119.6	1994.8	µg/L	1.74	1994.8	ppb	1.74	0.09%
Fe 238.204 Radial†	21042.8	195960	µg/L	1542.7	195960	ppb	1542.7	0.79%
K 766.490 Radial†	72013.9	42946	µg/L	20.8	42946	ppb	20.8	0.05%
Mg 279.077 IEC†	3407.8	40816	µg/L	192.3	40816	ppb	192.3	0.47%
Mn 257.610†	1456581.5	5759.4	µg/L	5.42	5759.4	ppb	5.42	0.09%
Mo 202.031†	4422.1	560.34	µg/L	2.858	560.34	ppb	2.858	0.51%
Na 589.592 Radial†	25052.0	10763	µg/L	3.3	10763	ppb	3.3	0.03%

Ni 231.604†	19377.7	1473.3	µg/L	8.64	1473.3	ppb	8.64	0.59%
P 214.914†	3680.3	9003.9	µg/L	43.44	9003.9	ppb	43.44	0.48%
Pb 220.353†	2644.6	912.63	µg/L	6.542	912.63	ppb	6.542	0.72%
S 181.975 Axial†	921.8	3838.5	µg/L	26.41	3838.5	ppb	26.41	0.69%
Sb 206.836†	1293.3	1508.7	µg/L	14.77	1508.7	ppb	14.77	0.98%
Se 196.026†	2220.9	3612.9	µg/L	16.56	3612.9	ppb	16.56	0.46%
SiO2†	211633.2	49595	µg/L	74.7	49595	ppb	74.7	0.15%
Si 251.611†	263530.9	23102	µg/L	28.4	23102	ppb	28.4	0.12%
Sn 189.927†	2311.3	1159.5	µg/L	8.01	1159.5	ppb	8.01	0.69%
Sr 421.552†	467718.6	2374.0	µg/L	2.17	2374.0	ppb	2.17	0.09%
Ti 334.940†	2145585.7	6121.8	µg/L	0.82	6121.8	ppb	0.82	0.01%
Tl 190.801†	1014.6	1356.1	µg/L	18.00	1356.1	ppb	18.00	1.33%
U 409.014†	-2172.6	-247.66	µg/L	10.304	-247.66	ppb	10.304	4.16%
V 292.402†	96702.7	1335.8	µg/L	0.84	1335.8	ppb	0.84	0.06%
Zn 213.857†	215439.8	6220.0	µg/L	9.46	6220.0	ppb	9.46	0.15%

Sequence No.: 34
Sample ID: 246837001|952945|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 346
Date Collected: 2/27/2010 19:37:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246837001|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	101827.1	101827.1	103	%			19:37:43
1	Al 396.153Radial†	31023.2	30297.6	16667	µg/L	16667	ppb	19:37:43
1	Ca 317.933Radial†	10136.1	9479.8	3629.0	µg/L	3629.0	ppb	19:37:43
1	Fe 238.204 Radial†	9457.8	9158.5	85277	µg/L	85277	ppb	19:37:43
1	K 766.490 Radial†	6651.2	6231.9	3716.5	µg/L	3716.5	ppb	19:37:43
1	Mg 279.077 IEC†	288.6	271.9	3181.9	µg/L	3181.9	ppb	19:38:03
1	Na 589.592 Radial†	4917.8	4528.9	1945.8	µg/L	1945.8	ppb	19:37:43
1	Sr 421.552†	6303.1	5974.5	30.325	µg/L	30.325	ppb	19:37:43
1	Sc 361.383	1625106.0	1625106.0	102.05	%			19:39:08
1	Y 371.029	1197748.3	1197748.3	107.65	%			19:39:08
1	Ag 328.068†	-221.8	-439.1	2.8195	µg/L	2.8195	ppb	19:39:13
1	As 188.979†	10.3	8.4	5.7560	µg/L	5.7560	ppb	19:39:34
1	B 249.677†	1961.7	584.0	-11.199	µg/L	-11.199	ppb	19:39:13
1	Ba 233.527†	6935.6	6823.8	188.89	µg/L	188.89	ppb	19:39:13
1	Be 313.107†	5961.2	8065.2	5.2040	µg/L	5.2040	ppb	19:39:13
1	Cd 226.502†	304.5	440.3	4.5721	µg/L	4.5721	ppb	19:39:34
1	Co 228.616†	898.6	866.6	42.805	µg/L	42.805	ppb	19:39:34
1	Cr 267.716†	2434.5	2306.4	64.822	µg/L	64.822	ppb	19:39:34
1	Cu 324.752†	6646.7	3851.3	45.589	µg/L	45.589	ppb	19:39:13
1	Mn 257.610†	645229.2	632809.5	2503.1	µg/L	2503.1	ppb	19:39:08
1	Mo 202.031†	101.9	95.3	15.161	µg/L	15.161	ppb	19:39:34
1	Ni 231.604†	3132.1	2779.4	212.17	µg/L	212.17	ppb	19:39:34
1	P 214.914†	175.1	148.3	308.39	µg/L	308.39	ppb	19:39:34
1	Pb 220.353†	172.5	128.1	46.710	µg/L	46.710	ppb	19:39:34
1	S 181.975 Axial†	18.5	4.4	18.185	µg/L	18.185	ppb	19:39:34
1	Sb 206.836†	17.8	-3.3	-4.4645	µg/L	-4.4645	ppb	19:39:34
1	Se 196.026†	-33.0	-47.4	214.13	µg/L	214.13	ppb	19:39:34
1	SiO2†	109230.0	105659.7	24761	µg/L	24761	ppb	19:39:13
1	Si 251.611†	135154.7	132079.5	11579	µg/L	11579	ppb	19:39:13
1	Sn 189.927†	22.3	13.5	1.3751	µg/L	1.3751	ppb	19:39:34
1	Ti 334.940†	944670.2	925648.6	2641.5	µg/L	2641.5	ppb	19:39:08
1	Tl 190.801†	-52.9	-25.6	12.362	µg/L	12.362	ppb	19:39:34
1	U 409.014†	-2662.5	-2723.7	-280.22	µg/L	-280.22	ppb	19:39:08
1	V 292.402†	2961.9	3068.9	44.943	µg/L	44.943	ppb	19:39:13
1	Zn 213.857†	14906.4	14078.3	402.63	µg/L	402.63	ppb	19:39:13
2	Sc RADIAL	101324.1	101324.1	102	%			19:38:09
2	Al 396.153Radial†	30996.3	30420.9	16735	µg/L	16735	ppb	19:38:09
2	Ca 317.933Radial†	10129.7	9522.4	3645.3	µg/L	3645.3	ppb	19:38:09
2	Fe 238.204 Radial†	9420.8	9167.9	85365	µg/L	85365	ppb	19:38:09
2	K 766.490 Radial†	6656.9	6269.5	3738.9	µg/L	3738.9	ppb	19:38:09
2	Mg 279.077 IEC†	288.6	273.3	3198.7	µg/L	3198.7	ppb	19:38:29
2	Na 589.592 Radial†	4901.7	4536.9	1949.2	µg/L	1949.2	ppb	19:38:09
2	Sr 421.552†	6311.5	6013.0	30.521	µg/L	30.521	ppb	19:38:09
2	Sc 361.383	1627054.5	1627054.5	102.18	%			19:39:41
2	Y 371.029	1200548.6	1200548.6	107.90	%			19:39:41
2	Ag 328.068†	-78.8	-298.9	4.1428	µg/L	4.1428	ppb	19:39:47
2	As 188.979†	13.4	11.5	11.823	µg/L	11.823	ppb	19:40:08
2	B 249.677†	2041.4	659.7	-6.9138	µg/L	-6.9138	ppb	19:39:47
2	Ba 233.527†	7104.7	6981.1	193.26	µg/L	193.26	ppb	19:39:47
2	Be 313.107†	10761.6	12756.5	8.8145	µg/L	8.8145	ppb	19:39:47
2	Cd 226.502†	429.6	562.3	8.4464	µg/L	8.4464	ppb	19:40:08
2	Co 228.616†	1015.8	980.3	49.136	µg/L	49.136	ppb	19:40:08
2	Cr 267.716†	3093.9	2949.0	82.877	µg/L	82.877	ppb	19:40:08
2	Cu 324.752†	7652.1	4827.4	53.097	µg/L	53.097	ppb	19:39:47
2	Mn 257.610†	646932.3	633719.3	2506.7	µg/L	2506.7	ppb	19:39:41
2	Mo 202.031†	131.1	123.8	18.721	µg/L	18.721	ppb	19:40:08
2	Ni 231.604†	3219.4	2861.2	218.38	µg/L	218.38	ppb	19:40:08
2	P 214.914†	186.9	159.7	336.46	µg/L	336.46	ppb	19:40:08
2	Pb 220.353†	191.0	146.0	52.850	µg/L	52.850	ppb	19:40:08

2	S 181.975 Axial†	22.3	8.0	33.417 µg/L	33.417 ppb	19:40:08
2	Sb 206.836†	37.8	16.2	18.458 µg/L	18.458 ppb	19:40:08
2	Se 196.026†	-23.4	-38.0	227.12 µg/L	227.12 ppb	19:40:08
2	SiO2†	108868.0	105177.3	24648 µg/L	24648 ppb	19:39:47
2	Si 251.611†	134683.1	131459.3	11524 µg/L	11524 ppb	19:39:47
2	Sn 189.927†	42.8	33.4	11.449 µg/L	11.449 ppb	19:40:08
2	Ti 334.940†	947633.9	927440.7	2646.7 µg/L	2646.7 ppb	19:39:41
2	Tl 190.801†	-44.4	-17.2	22.887 µg/L	22.887 ppb	19:40:08
2	U 409.014†	-2731.9	-2788.4	-286.61 µg/L	-286.61 ppb	19:39:41
2	V 292.402†	3357.6	3452.8	50.244 µg/L	50.244 ppb	19:39:47
2	Zn 213.857†	15613.6	14753.0	422.13 µg/L	422.13 ppb	19:39:47
3	Sc RADIAL	99797.5	99797.5	101 %		19:38:35
3	Al 396.153Radial†	30688.7	30578.8	16821 µg/L	16821 ppb	19:38:35
3	Ca 317.933Radial†	10057.4	9601.9	3675.7 µg/L	3675.7 ppb	19:38:35
3	Fe 238.204 Radial†	9259.7	9148.9	85189 µg/L	85189 ppb	19:38:35
3	K 766.490 Radial†	6548.8	6261.7	3734.3 µg/L	3734.3 ppb	19:38:35
3	Mg 279.077 IEC†	290.9	279.9	3278.2 µg/L	3278.2 ppb	19:38:55
3	Na 589.592 Radial†	4898.8	4607.2	1979.4 µg/L	1979.4 ppb	19:38:35
3	Sr 421.552†	6328.8	6124.4	31.086 µg/L	31.086 ppb	19:38:35
3	Sc 361.383	1622818.2	1622818.2	101.91 %		19:40:15
3	Y 371.029	1193815.4	1193815.4	107.30 %		19:40:15
3	Ag 328.068†	208.9	-16.8	6.7719 µg/L	6.7719 ppb	19:40:21
3	As 188.979†	17.1	15.1	19.037 µg/L	19.037 ppb	19:40:41
3	B 249.677†	2228.7	848.7	3.9320 µg/L	3.9320 ppb	19:40:21
3	Ba 233.527†	7407.8	7296.7	202.01 µg/L	202.01 ppb	19:40:21
3	Be 313.107†	20687.0	22523.3	16.360 µg/L	16.360 ppb	19:40:21
3	Cd 226.502†	519.3	651.5	11.288 µg/L	11.288 ppb	19:40:41
3	Co 228.616†	1035.9	1002.6	50.515 µg/L	50.515 ppb	19:40:41
3	Cr 267.716†	3368.9	3226.7	90.686 µg/L	90.686 ppb	19:40:41
3	Cu 324.752†	9622.9	6780.8	68.055 µg/L	68.055 ppb	19:40:21
3	Mn 257.610†	633635.0	622324.0	2461.7 µg/L	2461.7 ppb	19:40:15
3	Mo 202.031†	145.6	138.4	20.539 µg/L	20.539 ppb	19:40:41
3	Ni 231.604†	3036.6	2690.0	205.37 µg/L	205.37 ppb	19:40:41
3	P 214.914†	200.0	173.0	368.96 µg/L	368.96 ppb	19:40:41
3	Pb 220.353†	189.6	145.1	52.521 µg/L	52.521 ppb	19:40:41
3	S 181.975 Axial†	29.1	14.7	61.395 µg/L	61.395 ppb	19:40:41
3	Sb 206.836†	40.3	18.8	21.399 µg/L	21.399 ppb	19:40:41
3	Se 196.026†	-8.2	-23.1	246.62 µg/L	246.62 ppb	19:40:41
3	SiO2†	105681.8	102328.9	23980 µg/L	23980 ppb	19:40:21
3	Si 251.611†	130626.5	127822.9	11205 µg/L	11205 ppb	19:40:21
3	Sn 189.927†	54.4	44.9	17.288 µg/L	17.288 ppb	19:40:41
3	Ti 334.940†	922338.8	905040.7	2582.7 µg/L	2582.7 ppb	19:40:15
3	Tl 190.801†	-35.0	-8.1	33.598 µg/L	33.598 ppb	19:40:41
3	U 409.014†	-2674.2	-2738.8	-281.70 µg/L	-281.70 ppb	19:40:15
3	V 292.402†	4068.8	4159.2	59.908 µg/L	59.908 ppb	19:40:21
3	Zn 213.857†	16828.3	15984.7	457.85 µg/L	457.85 ppb	19:40:21

Mean Data: 246837001|952945|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1624992.9	102.05	%	0.133				0.13%
Sc RADIAL	100982.9	102	%	1.1				1.05%
Y 371.029	1197370.8	107.61	%	0.304				0.28%
Ag 328.068†	-251.6	4.5781	µg/L	2.01183	4.5781	ppb	2.01183	43.94%
Al 396.153Radial†	30432.4	16741	µg/L	77.5	16741	ppb	77.5	0.46%
As 188.979†	11.7	12.205	µg/L	6.6488	12.205	ppb	6.6488	54.47%
B 249.677†	697.4	-4.7268	µg/L	7.79882	-4.7268	ppb	7.79882	164.99%
Ba 233.527†	7033.9	194.72	µg/L	6.678	194.72	ppb	6.678	3.43%
Be 313.107†	14448.3	10.126	µg/L	5.6923	10.126	ppb	5.6923	56.21%
Ca 317.933Radial†	9534.7	3650.0	µg/L	23.73	3650.0	ppb	23.73	0.65%
Cd 226.502†	551.4	8.1021	µg/L	3.37104	8.1021	ppb	3.37104	41.61%
Co 228.616†	949.8	47.485	µg/L	4.1114	47.485	ppb	4.1114	8.66%
Cr 267.716†	2827.4	79.461	µg/L	13.2659	79.461	ppb	13.2659	16.69%
Cu 324.752†	5153.2	55.580	µg/L	11.4371	55.580	ppb	11.4371	20.58%
Fe 238.204 Radial†	9158.4	85277	µg/L	88.3	85277	ppb	88.3	0.10%
K 766.490 Radial†	6254.4	3729.9	µg/L	11.84	3729.9	ppb	11.84	0.32%
Mg 279.077 IEC†	275.1	3219.6	µg/L	51.45	3219.6	ppb	51.45	1.60%
Mn 257.610†	629617.6	2490.5	µg/L	25.01	2490.5	ppb	25.01	1.00%
Mo 202.031†	119.2	18.140	µg/L	2.7356	18.140	ppb	2.7356	15.08%
Na 589.592 Radial†	4557.6	1958.1	µg/L	18.52	1958.1	ppb	18.52	0.95%

Ni 231.604†	2776.9	211.97 µg/L	6.505	211.97 ppb	6.505	3.07%
P 214.914†	160.4	337.94 µg/L	30.313	337.94 ppb	30.313	8.97%
Pb 220.353†	139.7	50.694 µg/L	3.4538	50.694 ppb	3.4538	6.81%
S 181.975 Axial†	9.0	37.666 µg/L	21.9165	37.666 ppb	21.9165	58.19%
Sb 206.836†	10.6	11.798 µg/L	14.1600	11.798 ppb	14.1600	120.02%
Se 196.026†	-36.2	229.29 µg/L	16.351	229.29 ppb	16.351	7.13%
SiO2†	104388.7	24463 µg/L	421.8	24463 ppb	421.8	1.72%
Si 251.611†	130453.9	11436 µg/L	201.6	11436 ppb	201.6	1.76%
Sn 189.927†	30.6	10.037 µg/L	8.0499	10.037 ppb	8.0499	80.20%
Sr 421.552†	6037.3	30.644 µg/L	0.3952	30.644 ppb	0.3952	1.29%
Ti 334.940†	919376.7	2623.6 µg/L	35.53	2623.6 ppb	35.53	1.35%
Tl 190.801†	-17.0	22.949 µg/L	10.6179	22.949 ppb	10.6179	46.27%
U 409.014†	-2750.3	-282.85 µg/L	3.344	-282.85 ppb	3.344	1.18%
V 292.402†	3560.3	51.698 µg/L	7.5878	51.698 ppb	7.5878	14.68%
Zn 213.857†	14938.7	427.54 µg/L	28.005	427.54 ppb	28.005	6.55%

Sequence No.: 35
Sample ID: 1202042555|952945|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 347
Date Collected: 2/27/2010 19:40:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042555|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	101375.3	101375.3	103	%			19:41:24
1	Al 396.153Radial†	27227.0	26729.2	14704	µg/L	14704	ppb	19:41:24
1	Ca 317.933Radial†	9042.8	8457.3	3237.5	µg/L	3237.5	ppb	19:41:24
1	Fe 238.204 Radial†	8636.1	8397.9	78196	µg/L	78196	ppb	19:41:24
1	K 766.490 Radial†	6188.7	5809.5	3464.6	µg/L	3464.6	ppb	19:41:24
1	Mg 279.077 IEC†	246.0	231.6	2703.9	µg/L	2703.9	ppb	19:41:45
1	Na 589.592 Radial†	4884.7	4517.9	1941.1	µg/L	1941.1	ppb	19:41:24
1	Sr 421.552†	5425.0	5145.3	26.116	µg/L	26.116	ppb	19:41:24
1	Sc 361.383	1637495.8	1637495.8	102.83	%			19:42:49
1	Y 371.029	1210726.1	1210726.1	108.81	%			19:42:49
1	Ag 328.068†	-351.5	-563.6	1.1012	µg/L	1.1012	ppb	19:42:55
1	As 188.979†	14.0	12.0	13.724	µg/L	13.724	ppb	19:43:15
1	B 249.677†	1907.6	516.8	-11.351	µg/L	-11.351	ppb	19:42:55
1	Ba 233.527†	6478.3	6327.6	175.15	µg/L	175.15	ppb	19:42:55
1	Be 313.107†	3923.4	6039.4	3.6879	µg/L	3.6879	ppb	19:42:55
1	Cd 226.502†	193.1	329.7	1.8645	µg/L	1.8645	ppb	19:43:15
1	Co 228.616†	868.4	830.5	41.034	µg/L	41.034	ppb	19:43:15
1	Cr 267.716†	1859.2	1728.9	48.594	µg/L	48.594	ppb	19:43:15
1	Cu 324.752†	5612.5	2796.2	36.160	µg/L	36.160	ppb	19:42:55
1	Mn 257.610†	634506.2	617598.1	2442.7	µg/L	2442.7	ppb	19:42:49
1	Mo 202.031†	84.6	77.7	12.689	µg/L	12.689	ppb	19:43:15
1	Ni 231.604†	3276.5	2896.5	220.98	µg/L	220.98	ppb	19:43:15
1	P 214.914†	160.4	132.7	274.84	µg/L	274.84	ppb	19:43:15
1	Pb 220.353†	172.4	126.7	45.982	µg/L	45.982	ppb	19:43:15
1	S 181.975 Axial†	15.9	1.7	7.0609	µg/L	7.0609	ppb	19:43:15
1	Sb 206.836†	19.6	-1.7	-2.3932	µg/L	-2.3932	ppb	19:43:15
1	Se 196.026†	-35.3	-49.4	188.49	µg/L	188.49	ppb	19:43:15
1	SiO2†	99362.3	95253.9	22322	µg/L	22322	ppb	19:42:55
1	Si 251.611†	122615.2	118883.2	10422	µg/L	10422	ppb	19:42:55
1	Sn 189.927†	12.2	3.4	-3.2606	µg/L	-3.2606	ppb	19:43:15
1	Ti 334.940†	910404.8	885322.8	2526.5	µg/L	2526.5	ppb	19:42:49
1	Tl 190.801†	-50.3	-22.6	13.853	µg/L	13.853	ppb	19:43:15
1	U 409.014†	-2759.6	-2798.4	-286.57	µg/L	-286.57	ppb	19:42:49
1	V 292.402†	2571.2	2667.0	39.141	µg/L	39.141	ppb	19:42:55
1	Zn 213.857†	13672.9	12768.2	365.01	µg/L	365.01	ppb	19:42:55
2	Sc RADIAL	101477.6	101477.6	103	%			19:41:50
2	Al 396.153Radial†	27306.7	26780.1	14732	µg/L	14732	ppb	19:41:50
2	Ca 317.933Radial†	9048.3	8453.7	3236.2	µg/L	3236.2	ppb	19:41:50
2	Fe 238.204 Radial†	8628.1	8381.6	78044	µg/L	78044	ppb	19:41:50
2	K 766.490 Radial†	6161.0	5776.5	3444.9	µg/L	3444.9	ppb	19:41:50
2	Mg 279.077 IEC†	247.6	232.9	2719.4	µg/L	2719.4	ppb	19:42:11
2	Na 589.592 Radial†	4954.0	4580.6	1968.0	µg/L	1968.0	ppb	19:41:50
2	Sr 421.552†	5445.6	5160.0	26.191	µg/L	26.191	ppb	19:41:50
2	Sc 361.383	1629459.1	1629459.1	102.33	%			19:43:23
2	Y 371.029	1206241.2	1206241.2	108.41	%			19:43:23
2	Ag 328.068†	-322.3	-536.8	1.3344	µg/L	1.3344	ppb	19:43:28
2	As 188.979†	10.5	8.6	7.0418	µg/L	7.0418	ppb	19:43:49
2	B 249.677†	1885.0	503.9	-12.003	µg/L	-12.003	ppb	19:43:28
2	Ba 233.527†	6517.2	6396.7	177.07	µg/L	177.07	ppb	19:43:28
2	Be 313.107†	3876.8	6012.7	3.6729	µg/L	3.6729	ppb	19:43:28
2	Cd 226.502†	198.6	336.0	2.0814	µg/L	2.0814	ppb	19:43:49
2	Co 228.616†	868.3	834.7	41.292	µg/L	41.292	ppb	19:43:49
2	Cr 267.716†	1840.4	1719.5	48.331	µg/L	48.331	ppb	19:43:49
2	Cu 324.752†	5611.3	2822.0	36.330	µg/L	36.330	ppb	19:43:28
2	Mn 257.610†	628390.6	614664.9	2431.1	µg/L	2431.1	ppb	19:43:23
2	Mo 202.031†	64.6	58.6	10.298	µg/L	10.298	ppb	19:43:49
2	Ni 231.604†	3244.0	2880.6	219.76	µg/L	219.76	ppb	19:43:49
2	P 214.914†	158.3	131.4	271.67	µg/L	271.67	ppb	19:43:49
2	Pb 220.353†	165.5	120.8	43.956	µg/L	43.956	ppb	19:43:49

2	S 181.975 Axial†	13.2	-0.9	-3.7878	µg/L	-3.7878 ppb	19:43:49
2	Sb 206.836†	20.3	-1.0	-1.6117	µg/L	-1.6117 ppb	19:43:49
2	Se 196.026†	-34.7	-49.0	188.52	µg/L	188.52 ppb	19:43:49
2	SiO2†	98961.0	95338.3	22342	µg/L	22342 ppb	19:43:28
2	Si 251.611†	122105.4	118973.1	10430	µg/L	10430 ppb	19:43:28
2	Sn 189.927†	14.2	5.4	-2.2569	µg/L	-2.2569 ppb	19:43:49
2	Ti 334.940†	900742.1	880246.5	2512.0	µg/L	2512.0 ppb	19:43:23
2	Tl 190.801†	-51.8	-24.3	11.513	µg/L	11.513 ppb	19:43:49
2	U 409.014†	-2842.5	-2892.6	-295.82	µg/L	-295.82 ppb	19:43:23
2	V 292.402†	2555.9	2664.4	39.071	µg/L	39.071 ppb	19:43:28
2	Zn 213.857†	13672.7	12833.7	366.92	µg/L	366.92 ppb	19:43:28
3	Sc RADIAL	102132.4	102132.4	103	%		19:42:16
3	Al 396.153Radial†	27425.0	26724.0	14701	µg/L	14701 ppb	19:42:16
3	Ca 317.933Radial†	9076.7	8424.7	3225.1	µg/L	3225.1 ppb	19:42:16
3	Fe 238.204 Radial†	8664.6	8363.1	77871	µg/L	77871 ppb	19:42:16
3	K 766.490 Radial†	6143.0	5720.6	3411.5	µg/L	3411.5 ppb	19:42:16
3	Mg 279.077 IEC†	244.8	228.6	2668.5	µg/L	2668.5 ppb	19:42:37
3	Na 589.592 Radial†	4970.6	4565.7	1961.6	µg/L	1961.6 ppb	19:42:16
3	Sr 421.552†	5437.3	5118.0	25.978	µg/L	25.978 ppb	19:42:16
3	Sc 361.383	1632689.4	1632689.4	102.53	%		19:43:56
3	Y 371.029	1203115.8	1203115.8	108.13	%		19:43:56
3	Ag 328.068†	-305.1	-519.3	1.4706	µg/L	1.4706 ppb	19:44:02
3	As 188.979†	10.1	8.2	6.2306	µg/L	6.2306 ppb	19:44:23
3	B 249.677†	1843.8	460.0	-14.415	µg/L	-14.415 ppb	19:44:02
3	Ba 233.527†	6151.2	6027.1	166.84	µg/L	166.84 ppb	19:44:02
3	Be 313.107†	3645.6	5779.7	3.5300	µg/L	3.5300 ppb	19:44:02
3	Cd 226.502†	169.7	307.4	1.1680	µg/L	1.1680 ppb	19:44:23
3	Co 228.616†	777.3	744.2	36.451	µg/L	36.451 ppb	19:44:23
3	Cr 267.716†	1644.8	1525.2	42.869	µg/L	42.869 ppb	19:44:23
3	Cu 324.752†	5534.6	2736.3	35.640	µg/L	35.640 ppb	19:44:02
3	Mn 257.610†	608958.9	594497.6	2351.5	µg/L	2351.5 ppb	19:43:56
3	Mo 202.031†	70.5	64.3	10.996	µg/L	10.996 ppb	19:44:23
3	Ni 231.604†	2918.7	2557.0	195.19	µg/L	195.19 ppb	19:44:23
3	P 214.914†	146.0	119.1	240.71	µg/L	240.71 ppb	19:44:23
3	Pb 220.353†	153.2	108.5	39.761	µg/L	39.761 ppb	19:44:23
3	S 181.975 Axial†	18.1	3.8	16.017	µg/L	16.017 ppb	19:44:23
3	Sb 206.836†	16.5	-4.6	-5.8604	µg/L	-5.8604 ppb	19:44:23
3	Se 196.026†	-26.9	-41.4	198.35	µg/L	198.35 ppb	19:44:23
3	SiO2†	94916.6	91202.4	21373	µg/L	21373 ppb	19:44:02
3	Si 251.611†	117071.1	113826.9	9978.5	µg/L	9978.5 ppb	19:44:02
3	Sn 189.927†	17.6	8.7	-0.5676	µg/L	-0.5676 ppb	19:44:23
3	Ti 334.940†	868105.8	846673.8	2416.2	µg/L	2416.2 ppb	19:43:56
3	Tl 190.801†	-49.5	-22.0	13.211	µg/L	13.211 ppb	19:44:23
3	U 409.014†	-2713.7	-2761.4	-282.88	µg/L	-282.88 ppb	19:43:56
3	V 292.402†	2445.5	2551.8	37.535	µg/L	37.535 ppb	19:44:02
3	Zn 213.857†	13048.6	12198.5	348.64	µg/L	348.64 ppb	19:44:02

Mean Data: 1202042555|952945|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1633214.7	102.56	%	0.254				0.25%
Sc RADIAL	101661.8	103	%	0.4				0.40%
Y 371.029	1206694.4	108.45	%	0.344				0.32%
Ag 328.068†	-539.9	1.3021	µg/L	0.18677	1.3021	ppb	0.18677	14.34%
Al 396.153Radial†	26744.4	14712	µg/L	17.1	14712	ppb	17.1	0.12%
As 188.979†	9.6	8.9988	µg/L	4.11222	8.9988	ppb	4.11222	45.70%
B 249.677†	493.6	-12.590	µg/L	1.6140	-12.590	ppb	1.6140	12.82%
Ba 233.527†	6250.5	173.02	µg/L	5.438	173.02	ppb	5.438	3.14%
Be 313.107†	5943.9	3.6302	µg/L	0.08717	3.6302	ppb	0.08717	2.40%
Ca 317.933Radial†	8445.3	3232.9	µg/L	6.84	3232.9	ppb	6.84	0.21%
Cd 226.502†	324.4	1.7046	µg/L	0.47718	1.7046	ppb	0.47718	27.99%
Co 228.616†	803.1	39.593	µg/L	2.7233	39.593	ppb	2.7233	6.88%
Cr 267.716†	1657.9	46.598	µg/L	3.2322	46.598	ppb	3.2322	6.94%
Cu 324.752†	2784.8	36.043	µg/L	0.3595	36.043	ppb	0.3595	1.00%
Fe 238.204 Radial†	8380.9	78037	µg/L	162.5	78037	ppb	162.5	0.21%
K 766.490 Radial†	5768.9	3440.3	µg/L	26.81	3440.3	ppb	26.81	0.78%
Mg 279.077 IEC†	231.0	2697.3	µg/L	26.08	2697.3	ppb	26.08	0.97%
Mn 257.610†	608920.2	2408.4	µg/L	49.66	2408.4	ppb	49.66	2.06%
Mo 202.031†	66.9	11.328	µg/L	1.2296	11.328	ppb	1.2296	10.85%
Na 589.592 Radial†	4554.7	1956.9	µg/L	14.07	1956.9	ppb	14.07	0.72%

Ni 231.604†	2778.0	211.98 µg/L	14.551	211.98 ppb	14.551	6.86%
P 214.914†	127.8	262.41 µg/L	18.859	262.41 ppb	18.859	7.19%
Pb 220.353†	118.7	43.233 µg/L	3.1728	43.233 ppb	3.1728	7.34%
S 181.975 Axial†	1.5	6.4301 µg/L	9.91757	6.4301 ppb	9.91757	154.24%
Sb 206.836†	-2.4	-3.2884 µg/L	2.26141	-3.2884 ppb	2.26141	68.77%
Se 196.026†	-46.6	191.79 µg/L	5.681	191.79 ppb	5.681	2.96%
SiO2†	93931.5	22012 µg/L	554.0	22012 ppb	554.0	2.52%
Si 251.611†	117227.8	10277 µg/L	258.2	10277 ppb	258.2	2.51%
Sn 189.927†	5.9	-2.0284 µg/L	1.36095	-2.0284 ppb	1.36095	67.10%
Sr 421.552†	5141.1	26.095 µg/L	0.1082	26.095 ppb	0.1082	0.41%
Ti 334.940†	870747.7	2484.9 µg/L	59.94	2484.9 ppb	59.94	2.41%
Tl 190.801†	-23.0	12.859 µg/L	1.2086	12.859 ppb	1.2086	9.40%
U 409.014†	-2817.5	-288.42 µg/L	6.667	-288.42 ppb	6.667	2.31%
V 292.402†	2627.7	38.582 µg/L	0.9076	38.582 ppb	0.9076	2.35%
Zn 213.857†	12600.1	360.19 µg/L	10.049	360.19 ppb	10.049	2.79%

Sequence No.: 36
Sample ID: 1202042557|952945|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 348
Date Collected: 2/27/2010 19:44:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042557|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	101779.9	101779.9	103	%			19:45:05
1	Al 396.153Radial†	59468.3	57945.6	31866	µg/L	31866	ppb	19:45:05
1	Ca 317.933Radial†	24995.0	23919.6	9156.6	µg/L	9156.6	ppb	19:45:05
1	Fe 238.204 Radial†	9896.5	9588.9	89296	µg/L	89296	ppb	19:45:26
1	K 766.490 Radial†	16734.8	16030.9	9560.2	µg/L	9560.2	ppb	19:45:05
1	Mg 279.077 IEC†	834.8	802.6	9573.7	µg/L	9573.7	ppb	19:45:26
1	Na 589.592 Radial†	17379.8	16637.8	7148.2	µg/L	7148.2	ppb	19:45:05
1	Sr 421.552†	105226.5	102080.0	518.14	µg/L	518.14	ppb	19:45:05
1	Sc 361.383	1616911.4	1616911.4	101.54	%			19:46:29
1	Y 371.029	1208191.1	1208191.1	108.59	%			19:46:29
1	Ag 328.068†	54964.2	53909.4	503.35	µg/L	503.35	ppb	19:46:35
1	As 188.979†	272.9	267.1	517.35	µg/L	517.35	ppb	19:46:55
1	B 249.677†	10987.3	9482.5	493.33	µg/L	493.33	ppb	19:46:35
1	Ba 233.527†	25411.5	25054.1	694.27	µg/L	694.27	ppb	19:46:35
1	Be 313.107†	685778.2	677609.2	520.49	µg/L	520.49	ppb	19:46:29
1	Cd 226.502†	16564.9	16455.7	513.77	µg/L	513.77	ppb	19:46:35
1	Co 228.616†	9947.4	9782.7	538.75	µg/L	538.75	ppb	19:46:35
1	Cr 267.716†	20917.5	20521.5	576.87	µg/L	576.87	ppb	19:46:35
1	Cu 324.752†	78074.5	74229.6	586.46	µg/L	586.46	ppb	19:46:35
1	Mn 257.610†	734064.1	723502.4	2861.0	µg/L	2861.0	ppb	19:46:29
1	Mo 202.031†	4322.4	4252.4	535.08	µg/L	535.08	ppb	19:46:55
1	Ni 231.604†	10461.4	10013.2	761.10	µg/L	761.10	ppb	19:46:35
1	P 214.914†	388.9	359.8	796.17	µg/L	796.17	ppb	19:46:55
1	Pb 220.353†	1730.2	1663.1	572.48	µg/L	572.48	ppb	19:46:55
1	S 181.975 Axial†	1344.6	1310.4	5456.7	µg/L	5456.7	ppb	19:46:55
1	Sb 206.836†	443.4	415.9	494.07	µg/L	494.07	ppb	19:46:55
1	Se 196.026†	376.6	355.8	767.80	µg/L	767.80	ppb	19:46:55
1	SiO2†	161277.7	157461.1	36900	µg/L	36900	ppb	19:46:35
1	Si 251.611†	202758.2	199329.6	17474	µg/L	17474	ppb	19:46:29
1	Sn 189.927†	1093.3	1068.3	534.40	µg/L	534.40	ppb	19:46:55
1	Ti 334.940†	1204301.5	1186036.5	3384.3	µg/L	3384.3	ppb	19:46:29
1	Tl 190.801†	369.9	390.6	542.64	µg/L	542.64	ppb	19:46:55
1	U 409.014†	2422.3	2270.9	210.60	µg/L	210.60	ppb	19:46:29
1	V 292.402†	41393.8	40933.1	567.15	µg/L	567.15	ppb	19:46:35
1	Zn 213.857†	32938.0	31910.6	915.38	µg/L	915.38	ppb	19:46:35
2	Sc RADIAL	102312.3	102312.3	103	%			19:45:31
2	Al 396.153Radial†	59864.2	58027.6	31911	µg/L	31911	ppb	19:45:31
2	Ca 317.933Radial†	25053.9	23850.2	9130.1	µg/L	9130.1	ppb	19:45:31
2	Fe 238.204 Radial†	9914.0	9555.7	88987	µg/L	88987	ppb	19:45:52
2	K 766.490 Radial†	16786.6	15996.4	9539.6	µg/L	9539.6	ppb	19:45:31
2	Mg 279.077 IEC†	836.8	800.4	9546.5	µg/L	9546.5	ppb	19:45:52
2	Na 589.592 Radial†	17537.3	16702.1	7175.9	µg/L	7175.9	ppb	19:45:31
2	Sr 421.552†	106219.4	102507.6	520.31	µg/L	520.31	ppb	19:45:31
2	Sc 361.383	1607146.0	1607146.0	100.93	%			19:47:02
2	Y 371.029	1203477.6	1203477.6	108.16	%			19:47:02
2	Ag 328.068†	54112.9	53394.9	498.57	µg/L	498.57	ppb	19:47:07
2	As 188.979†	278.3	274.2	531.46	µg/L	531.46	ppb	19:47:28
2	B 249.677†	10800.6	9363.2	486.69	µg/L	486.69	ppb	19:47:07
2	Ba 233.527†	25043.5	24841.5	688.37	µg/L	688.37	ppb	19:47:07
2	Be 313.107†	679022.8	675019.6	518.50	µg/L	518.50	ppb	19:47:02
2	Cd 226.502†	16255.9	16248.7	507.22	µg/L	507.22	ppb	19:47:07
2	Co 228.616†	9789.3	9685.7	533.35	µg/L	533.35	ppb	19:47:07
2	Cr 267.716†	20442.2	20175.7	567.15	µg/L	567.15	ppb	19:47:07
2	Cu 324.752†	76649.7	73285.0	579.16	µg/L	579.16	ppb	19:47:07
2	Mn 257.610†	727604.9	721495.2	2853.1	µg/L	2853.1	ppb	19:47:02
2	Mo 202.031†	4227.8	4184.5	526.58	µg/L	526.58	ppb	19:47:28
2	Ni 231.604†	10254.8	9871.1	750.31	µg/L	750.31	ppb	19:47:07
2	P 214.914†	386.9	360.1	797.83	µg/L	797.83	ppb	19:47:28
2	Pb 220.353†	1707.2	1650.6	568.18	µg/L	568.18	ppb	19:47:28

2	S 181.975 Axial†	1318.7	1292.9	5383.5 µg/L	5383.5 ppb	19:47:28
2	Sb 206.836†	430.5	405.8	482.03 µg/L	482.03 ppb	19:47:28
2	Se 196.026†	368.4	350.0	758.88 µg/L	758.88 ppb	19:47:28
2	SiO2†	158884.6	156055.1	36570 µg/L	36570 ppb	19:47:07
2	Si 251.611†	200644.2	198448.3	17397 µg/L	17397 ppb	19:47:02
2	Sn 189.927†	1064.4	1046.2	523.29 µg/L	523.29 ppb	19:47:28
2	Ti 334.940†	1194543.0	1183574.2	3377.2 µg/L	3377.2 ppb	19:47:02
2	Tl 190.801†	351.8	374.8	522.65 µg/L	522.65 ppb	19:47:28
2	U 409.014†	2434.8	2297.8	213.29 µg/L	213.29 ppb	19:47:02
2	V 292.402†	40530.8	40325.7	558.77 µg/L	558.77 ppb	19:47:07
2	Zn 213.857†	32402.2	31576.9	905.79 µg/L	905.79 ppb	19:47:07
3	Sc RADIAL	102942.9	102942.9	104 %		19:45:57
3	Al 396.153Radial†	60074.8	57875.4	31828 µg/L	31828 ppb	19:45:57
3	Ca 317.933Radial†	25211.6	23853.3	9131.2 µg/L	9131.2 ppb	19:45:57
3	Fe 238.204 Radial†	9895.0	9478.8	88270 µg/L	88270 ppb	19:46:17
3	K 766.490 Radial†	16974.5	16077.5	9588.0 µg/L	9588.0 ppb	19:45:57
3	Mg 279.077 IEC†	837.9	796.5	9499.8 µg/L	9499.8 ppb	19:46:17
3	Na 589.592 Radial†	17581.8	16641.0	7149.6 µg/L	7149.6 ppb	19:45:57
3	Sr 421.552†	106755.7	102393.8	519.73 µg/L	519.73 ppb	19:45:57
3	Sc 361.383	1619728.1	1619728.1	101.72 %		19:47:34
3	Y 371.029	1206432.8	1206432.8	108.43 %		19:47:34
3	Ag 328.068†	52774.3	51662.3	482.45 µg/L	482.45 ppb	19:47:40
3	As 188.979†	247.7	241.9	467.64 µg/L	467.64 ppb	19:48:00
3	B 249.677†	10487.5	8972.4	464.79 µg/L	464.79 ppb	19:47:40
3	Ba 233.527†	23989.0	23612.1	654.29 µg/L	654.29 ppb	19:47:40
3	Be 313.107†	647141.7	638449.9	490.41 µg/L	490.41 ppb	19:47:34
3	Cd 226.502†	15693.0	15570.2	485.69 µg/L	485.69 ppb	19:47:40
3	Co 228.616†	9276.6	9106.2	501.34 µg/L	501.34 ppb	19:47:40
3	Cr 267.716†	19284.4	18880.0	530.73 µg/L	530.73 ppb	19:47:40
3	Cu 324.752†	73020.1	69126.8	547.11 µg/L	547.11 ppb	19:47:40
3	Mn 257.610†	702660.1	691370.9	2734.1 µg/L	2734.1 ppb	19:47:34
3	Mo 202.031†	3825.9	3756.9	473.09 µg/L	473.09 ppb	19:48:00
3	Ni 231.604†	9816.9	9361.6	711.64 µg/L	711.64 ppb	19:47:40
3	P 214.914†	351.3	322.1	704.64 µg/L	704.64 ppb	19:48:00
3	Pb 220.353†	1579.6	1512.1	520.77 µg/L	520.77 ppb	19:48:00
3	S 181.975 Axial†	1234.0	1199.4	4994.2 µg/L	4994.2 ppb	19:48:00
3	Sb 206.836†	397.4	369.9	439.15 µg/L	439.15 ppb	19:48:00
3	Se 196.026†	352.1	331.1	730.99 µg/L	730.99 ppb	19:48:00
3	SiO2†	152733.3	148784.7	34867 µg/L	34867 ppb	19:47:40
3	Si 251.611†	193907.6	190281.1	16681 µg/L	16681 ppb	19:47:34
3	Sn 189.927†	971.3	946.4	472.97 µg/L	472.97 ppb	19:48:00
3	Ti 334.940†	1144859.6	1125534.7	3211.6 µg/L	3211.6 ppb	19:47:34
3	Tl 190.801†	332.4	353.1	493.33 µg/L	493.33 ppb	19:48:00
3	U 409.014†	2162.9	2011.7	185.23 µg/L	185.23 ppb	19:47:34
3	V 292.402†	38300.9	37821.5	524.07 µg/L	524.07 ppb	19:47:40
3	Zn 213.857†	31146.0	30092.5	863.04 µg/L	863.04 ppb	19:47:40

Mean Data: 1202042557|952945|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1614595.2	101.39	%	0.415				0.41%
Sc RADIAL	102345.0	104	%	0.6				0.57%
Y 371.029	1206033.9	108.39	%	0.214				0.20%
Ag 328.068†	52988.9	494.79	µg/L	10.950	494.79	ppb	10.950	2.21%
Al 396.153Radial†	57949.5	31868	µg/L	41.4	31868	ppb	41.4	0.13%
As 188.979†	261.1	505.48	µg/L	33.524	505.48	ppb	33.524	6.63%
B 249.677†	9272.7	481.60	µg/L	14.934	481.60	ppb	14.934	3.10%
Ba 233.527†	24502.6	678.98	µg/L	21.582	678.98	ppb	21.582	3.18%
Be 313.107†	663692.9	509.80	µg/L	16.826	509.80	ppb	16.826	3.30%
Ca 317.933Radial†	23874.4	9139.3	µg/L	15.01	9139.3	ppb	15.01	0.16%
Cd 226.502†	16091.6	502.23	µg/L	14.691	502.23	ppb	14.691	2.93%
Co 228.616†	9524.8	524.48	µg/L	20.219	524.48	ppb	20.219	3.86%
Cr 267.716†	19859.1	558.25	µg/L	24.324	558.25	ppb	24.324	4.36%
Cu 324.752†	72213.8	570.91	µg/L	20.933	570.91	ppb	20.933	3.67%
Fe 238.204 Radial†	9541.2	88851	µg/L	526.3	88851	ppb	526.3	0.59%
K 766.490 Radial†	16034.9	9562.6	µg/L	24.27	9562.6	ppb	24.27	0.25%
Mg 279.077 IEC†	799.8	9540.0	µg/L	37.34	9540.0	ppb	37.34	0.39%
Mn 257.610†	712122.9	2816.1	µg/L	71.09	2816.1	ppb	71.09	2.52%
Mo 202.031†	4064.6	511.58	µg/L	33.609	511.58	ppb	33.609	6.57%
Na 589.592 Radial†	16660.3	7157.9	µg/L	15.58	7157.9	ppb	15.58	0.22%

Ni 231.604†	9748.6	741.01 µg/L	26.008	741.01 ppb	26.008	3.51%
P 214.914†	347.3	766.21 µg/L	53.327	766.21 ppb	53.327	6.96%
Pb 220.353†	1608.6	553.81 µg/L	28.695	553.81 ppb	28.695	5.18%
S 181.975 Axial†	1267.5	5278.1 µg/L	248.63	5278.1 ppb	248.63	4.71%
Sb 206.836†	397.2	471.75 µg/L	28.870	471.75 ppb	28.870	6.12%
Se 196.026†	345.6	752.56 µg/L	19.203	752.56 ppb	19.203	2.55%
SiO2†	154100.3	36112 µg/L	1091.3	36112 ppb	1091.3	3.02%
Si 251.611†	196019.7	17184 µg/L	437.4	17184 ppb	437.4	2.55%
Sn 189.927†	1020.3	510.22 µg/L	32.731	510.22 ppb	32.731	6.42%
Sr 421.552†	102327.2	519.39 µg/L	1.124	519.39 ppb	1.124	0.22%
Ti 334.940†	1165048.5	3324.4 µg/L	97.72	3324.4 ppb	97.72	2.94%
Tl 190.801†	372.8	519.54 µg/L	24.800	519.54 ppb	24.800	4.77%
U 409.014†	2193.4	203.04 µg/L	15.484	203.04 ppb	15.484	7.63%
V 292.402†	39693.4	549.99 µg/L	22.842	549.99 ppb	22.842	4.15%
Zn 213.857†	31193.3	894.74 µg/L	27.864	894.74 ppb	27.864	3.11%

Sequence No.: 37
Sample ID: 1202042558|952945|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 349
Date Collected: 2/27/2010 19:48:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042558|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	102451.7	102451.7	104	%			19:48:42
1	Al 396.153Radial†	59430.4	57530.1	31637	µg/L	31637	ppb	19:48:42
1	Ca 317.933Radial†	24889.8	23658.9	9056.8	µg/L	9056.8	ppb	19:48:42
1	Fe 238.204 Radial†	10036.3	9660.7	89965	µg/L	89965	ppb	19:49:03
1	K 766.490 Radial†	16769.2	15957.6	9516.5	µg/L	9516.5	ppb	19:48:42
1	Mg 279.077 IEC†	839.0	801.4	9557.8	µg/L	9557.8	ppb	19:49:03
1	Na 589.592 Radial†	17383.3	16530.4	7102.1	µg/L	7102.1	ppb	19:48:42
1	Sr 421.552†	104471.6	100681.1	511.04	µg/L	511.04	ppb	19:48:42
1	Sc 361.383	1614851.4	1614851.4	101.41	%			19:50:06
1	Y 371.029	1209010.6	1209010.6	108.66	%			19:50:06
1	Ag 328.068†	54137.8	53163.6	496.52	µg/L	496.52	ppb	19:50:12
1	As 188.979†	268.6	263.3	509.71	µg/L	509.71	ppb	19:50:32
1	B 249.677†	10828.8	9340.0	484.86	µg/L	484.86	ppb	19:50:12
1	Ba 233.527†	26079.0	25744.3	713.35	µg/L	713.35	ppb	19:50:12
1	Be 313.107†	677005.4	669819.9	514.53	µg/L	514.53	ppb	19:50:06
1	Cd 226.502†	16245.4	16161.5	504.34	µg/L	504.34	ppb	19:50:12
1	Co 228.616†	9852.8	9701.9	534.43	µg/L	534.43	ppb	19:50:12
1	Cr 267.716†	20479.1	20115.4	565.45	µg/L	565.45	ppb	19:50:12
1	Cu 324.752†	76441.7	72717.5	574.98	µg/L	574.98	ppb	19:50:12
1	Mn 257.610†	831596.7	820601.7	3244.4	µg/L	3244.4	ppb	19:50:06
1	Mo 202.031†	4277.2	4213.2	530.20	µg/L	530.20	ppb	19:50:32
1	Ni 231.604†	10377.3	9943.3	755.81	µg/L	755.81	ppb	19:50:12
1	P 214.914†	389.1	360.5	798.34	µg/L	798.34	ppb	19:50:32
1	Pb 220.353†	1729.6	1664.6	573.06	µg/L	573.06	ppb	19:50:32
1	S 181.975 Axial†	1321.1	1289.0	5367.4	µg/L	5367.4	ppb	19:50:32
1	Sb 206.836†	434.0	407.2	483.83	µg/L	483.83	ppb	19:50:32
1	Se 196.026†	364.5	344.4	754.57	µg/L	754.57	ppb	19:50:32
1	SiO2†	152806.9	149310.6	34990	µg/L	34990	ppb	19:50:12
1	Si 251.611†	192898.2	189861.5	16644	µg/L	16644	ppb	19:50:06
1	Sn 189.927†	1076.5	1053.1	526.72	µg/L	526.72	ppb	19:50:32
1	Ti 334.940†	1170757.4	1154471.6	3294.2	µg/L	3294.2	ppb	19:50:06
1	Tl 190.801†	358.1	379.4	529.40	µg/L	529.40	ppb	19:50:32
1	U 409.014†	1785.8	1646.3	149.02	µg/L	149.02	ppb	19:50:06
1	V 292.402†	40661.6	40263.1	557.91	µg/L	557.91	ppb	19:50:12
1	Zn 213.857†	32803.7	31819.6	912.75	µg/L	912.75	ppb	19:50:12
2	Sc RADIAL	101728.0	101728.0	103	%			19:49:08
2	Al 396.153Radial†	59280.5	57792.5	31782	µg/L	31782	ppb	19:49:08
2	Ca 317.933Radial†	24612.9	23560.6	9019.2	µg/L	9019.2	ppb	19:49:08
2	Fe 238.204 Radial†	10022.4	9716.2	90481	µg/L	90481	ppb	19:49:28
2	K 766.490 Radial†	16705.8	16011.1	9548.4	µg/L	9548.4	ppb	19:49:08
2	Mg 279.077 IEC†	833.9	802.2	9567.5	µg/L	9567.5	ppb	19:49:28
2	Na 589.592 Radial†	17376.8	16643.4	7150.6	µg/L	7150.6	ppb	19:49:08
2	Sr 421.552†	104450.7	101378.0	514.58	µg/L	514.58	ppb	19:49:08
2	Sc 361.383	1623850.0	1623850.0	101.97	%			19:50:39
2	Y 371.029	1218543.0	1218543.0	109.52	%			19:50:39
2	Ag 328.068†	54442.0	53166.1	496.60	µg/L	496.60	ppb	19:50:44
2	As 188.979†	279.2	272.2	527.35	µg/L	527.35	ppb	19:51:05
2	B 249.677†	10946.9	9396.6	487.82	µg/L	487.82	ppb	19:50:44
2	Ba 233.527†	26284.7	25803.4	714.99	µg/L	714.99	ppb	19:50:44
2	Be 313.107†	681266.5	670299.1	514.90	µg/L	514.90	ppb	19:50:39
2	Cd 226.502†	16453.0	16276.4	507.94	µg/L	507.94	ppb	19:50:44
2	Co 228.616†	9923.3	9717.2	535.29	µg/L	535.29	ppb	19:50:44
2	Cr 267.716†	20742.3	20261.6	569.56	µg/L	569.56	ppb	19:50:44
2	Cu 324.752†	76938.1	72786.6	575.61	µg/L	575.61	ppb	19:50:44
2	Mn 257.610†	835903.1	820280.5	3243.2	µg/L	3243.2	ppb	19:50:39
2	Mo 202.031†	4254.2	4167.3	524.48	µg/L	524.48	ppb	19:51:05
2	Ni 231.604†	10503.3	10010.2	760.89	µg/L	760.89	ppb	19:50:44
2	P 214.914†	384.2	353.5	780.33	µg/L	780.33	ppb	19:51:05
2	Pb 220.353†	1727.7	1653.3	569.22	µg/L	569.22	ppb	19:51:05

2	S 181.975 Axial†	1319.6	1280.2	5330.9 µg/L	5330.9 ppb	19:51:05
2	Sb 206.836†	436.8	407.6	484.15 µg/L	484.15 ppb	19:51:05
2	Se 196.026†	361.1	339.0	749.00 µg/L	749.00 ppb	19:51:05
2	SiO2†	153616.1	149269.2	34980 µg/L	34980 ppb	19:50:44
2	Si 251.611†	193330.0	189230.8	16589 µg/L	16589 ppb	19:50:39
2	Sn 189.927†	1075.6	1046.4	523.26 µg/L	523.26 ppb	19:51:05
2	Ti 334.940†	1175636.8	1152859.0	3289.6 µg/L	3289.6 ppb	19:50:39
2	Tl 190.801†	354.9	374.3	523.05 µg/L	523.05 ppb	19:51:05
2	U 409.014†	1682.5	1535.2	138.02 µg/L	138.02 ppb	19:50:39
2	V 292.402†	41012.1	40384.6	559.54 µg/L	559.54 ppb	19:50:44
2	Zn 213.857†	33030.3	31862.6	913.95 µg/L	913.95 ppb	19:50:44
3	Sc RADIAL	102602.2	102602.2	104 %		19:49:34
3	Al 396.153Radial†	59570.8	57581.3	31666 µg/L	31666 ppb	19:49:34
3	Ca 317.933Radial†	24911.0	23644.0	9051.1 µg/L	9051.1 ppb	19:49:34
3	Fe 238.204 Radial†	10036.5	9646.7	89834 µg/L	89834 ppb	19:49:54
3	K 766.490 Radial†	16851.8	16013.4	9549.8 µg/L	9549.8 ppb	19:49:34
3	Mg 279.077 IEC†	832.3	793.8	9466.1 µg/L	9466.1 ppb	19:49:54
3	Na 589.592 Radial†	17578.5	16693.9	7172.3 µg/L	7172.3 ppb	19:49:34
3	Sr 421.552†	105151.4	101188.4	513.61 µg/L	513.61 ppb	19:49:34
3	Sc 361.383	1610243.2	1610243.2	101.12 %		19:51:11
3	Y 371.029	1207033.0	1207033.0	108.48 %		19:51:11
3	Ag 328.068†	52865.8	52058.4	486.23 µg/L	486.23 ppb	19:51:17
3	As 188.979†	249.4	245.0	473.44 µg/L	473.44 ppb	19:51:38
3	B 249.677†	10470.8	9016.5	466.50 µg/L	466.50 ppb	19:51:17
3	Ba 233.527†	24925.0	24676.6	683.76 µg/L	683.76 ppb	19:51:17
3	Be 313.107†	656199.8	651155.3	500.20 µg/L	500.20 ppb	19:51:11
3	Cd 226.502†	15746.3	15713.8	490.09 µg/L	490.09 ppb	19:51:17
3	Co 228.616†	9352.3	9234.7	508.57 µg/L	508.57 ppb	19:51:17
3	Cr 267.716†	19452.3	19157.8	538.54 µg/L	538.54 ppb	19:51:17
3	Cu 324.752†	72945.0	69475.3	550.08 µg/L	550.08 ppb	19:51:17
3	Mn 257.610†	806042.4	797677.3	3153.9 µg/L	3153.9 ppb	19:51:11
3	Mo 202.031†	3894.8	3847.1	484.43 µg/L	484.43 ppb	19:51:38
3	Ni 231.604†	9906.6	9507.1	722.70 µg/L	722.70 ppb	19:51:17
3	P 214.914†	359.4	332.2	728.77 µg/L	728.77 ppb	19:51:38
3	Pb 220.353†	1628.4	1569.4	540.45 µg/L	540.45 ppb	19:51:38
3	S 181.975 Axial†	1257.0	1229.3	5118.9 µg/L	5118.9 ppb	19:51:38
3	Sb 206.836†	405.0	379.7	450.85 µg/L	450.85 ppb	19:51:38
3	Se 196.026†	351.8	332.8	738.52 µg/L	738.52 ppb	19:51:38
3	SiO2†	146011.8	143022.1	33516 µg/L	33516 ppb	19:51:17
3	Si 251.611†	187045.9	184618.4	16184 µg/L	16184 ppb	19:51:11
3	Sn 189.927†	983.9	964.6	482.01 µg/L	482.01 ppb	19:51:38
3	Ti 334.940†	1129945.2	1117415.5	3188.4 µg/L	3188.4 ppb	19:51:11
3	Tl 190.801†	332.8	355.4	497.94 µg/L	497.94 ppb	19:51:38
3	U 409.014†	1642.5	1509.6	135.59 µg/L	135.59 ppb	19:51:11
3	V 292.402†	38530.5	38270.3	530.30 µg/L	530.30 ppb	19:51:17
3	Zn 213.857†	31537.2	30659.7	879.35 µg/L	879.35 ppb	19:51:17

Mean Data: 1202042558|952945|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1616314.8	101.50	%	0.435				0.43%
Sc RADIAL	102260.7	103	%	0.5				0.46%
Y 371.029	1211528.9	108.89	%	0.553				0.51%
Ag 328.068†	52796.0	493.12	µg/L	5.963	493.12	ppb	5.963	1.21%
Al 396.153Radial†	57634.7	31695	µg/L	76.4	31695	ppb	76.4	0.24%
As 188.979†	260.1	503.50	µg/L	27.485	503.50	ppb	27.485	5.46%
B 249.677†	9251.0	479.72	µg/L	11.550	479.72	ppb	11.550	2.41%
Ba 233.527†	25408.1	704.04	µg/L	17.577	704.04	ppb	17.577	2.50%
Be 313.107†	663758.1	509.88	µg/L	8.384	509.88	ppb	8.384	1.64%
Ca 317.933Radial†	23621.2	9042.4	µg/L	20.28	9042.4	ppb	20.28	0.22%
Cd 226.502†	16050.6	500.79	µg/L	9.440	500.79	ppb	9.440	1.89%
Co 228.616†	9551.3	526.10	µg/L	15.186	526.10	ppb	15.186	2.89%
Cr 267.716†	19845.0	557.85	µg/L	16.853	557.85	ppb	16.853	3.02%
Cu 324.752†	71659.8	566.89	µg/L	14.565	566.89	ppb	14.565	2.57%
Fe 238.204 Radial†	9674.6	90093	µg/L	342.2	90093	ppb	342.2	0.38%
K 766.490 Radial†	15994.0	9538.2	µg/L	18.83	9538.2	ppb	18.83	0.20%
Mg 279.077 IEC†	799.1	9530.5	µg/L	55.94	9530.5	ppb	55.94	0.59%
Mn 257.610†	812853.2	3213.8	µg/L	51.90	3213.8	ppb	51.90	1.61%
Mo 202.031†	4075.9	513.04	µg/L	24.943	513.04	ppb	24.943	4.86%
Na 589.592 Radial†	16622.6	7141.7	µg/L	35.98	7141.7	ppb	35.98	0.50%

Ni 231.604†	9820.2	746.47 µg/L	20.737	746.47 ppb	20.737	2.78%
P 214.914†	348.7	769.14 µg/L	36.108	769.14 ppb	36.108	4.69%
Pb 220.353†	1629.1	560.91 µg/L	17.823	560.91 ppb	17.823	3.18%
S 181.975 Axial†	1266.2	5272.4 µg/L	134.20	5272.4 ppb	134.20	2.55%
Sb 206.836†	398.2	472.95 µg/L	19.136	472.95 ppb	19.136	4.05%
Se 196.026†	338.7	747.36 µg/L	8.151	747.36 ppb	8.151	1.09%
SiO2†	147200.6	34495 µg/L	848.0	34495 ppb	848.0	2.46%
Si 251.611†	187903.5	16472 µg/L	250.9	16472 ppb	250.9	1.52%
Sn 189.927†	1021.4	510.66 µg/L	24.871	510.66 ppb	24.871	4.87%
Sr 421.552†	101082.5	513.08 µg/L	1.829	513.08 ppb	1.829	0.36%
Ti 334.940†	1141582.0	3257.4 µg/L	59.77	3257.4 ppb	59.77	1.83%
Tl 190.801†	369.7	516.80 µg/L	16.638	516.80 ppb	16.638	3.22%
U 409.014†	1563.7	140.88 µg/L	7.160	140.88 ppb	7.160	5.08%
V 292.402†	39639.3	549.25 µg/L	16.431	549.25 ppb	16.431	2.99%
Zn 213.857†	31447.3	902.02 µg/L	19.641	902.02 ppb	19.641	2.18%

Sequence No.: 38
Sample ID: 1202042556|952945|5
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 350
Date Collected: 2/27/2010 19:51:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042556|952945|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	100863.0	100863.0	102	%			19:52:20
1	Al 396.153Radial†	6084.6	6137.8	3376.4	µg/L	3376.4	ppb	19:52:20
1	Ca 317.933Radial†	2328.6	1920.0	735.01	µg/L	735.01	ppb	19:52:41
1	Fe 238.204 Radial†	1922.5	1859.2	17311	µg/L	17311	ppb	19:52:41
1	K 766.490 Radial†	1503.1	1246.8	743.55	µg/L	743.55	ppb	19:52:20
1	Mg 279.077 IEC†	64.6	55.0	643.23	µg/L	643.23	ppb	19:52:41
1	Na 589.592 Radial†	1169.7	900.2	386.76	µg/L	386.76	ppb	19:52:20
1	Sr 421.552†	1414.9	1241.0	6.2990	µg/L	6.2990	ppb	19:52:20
1	Sc 361.383	1630413.8	1630413.8	102.39	%			19:53:43
1	Y 371.029	1151452.5	1151452.5	103.49	%			19:53:43
1	Ag 328.068†	163.3	-62.3	0.8235	µg/L	0.8235	ppb	19:53:48
1	As 188.979†	4.6	2.9	3.4704	µg/L	3.4704	ppb	19:54:09
1	B 249.677†	1197.9	-168.3	-18.581	µg/L	-18.581	ppb	19:53:48
1	Ba 233.527†	1382.5	1378.0	38.147	µg/L	38.147	ppb	19:54:09
1	Be 313.107†	-165.1	2062.7	1.3856	µg/L	1.3856	ppb	19:53:48
1	Cd 226.502†	-39.7	103.1	1.3651	µg/L	1.3651	ppb	19:54:09
1	Co 228.616†	199.8	181.2	8.9923	µg/L	8.9923	ppb	19:54:09
1	Cr 267.716†	563.1	471.0	13.236	µg/L	13.236	ppb	19:54:09
1	Cu 324.752†	3390.6	649.8	8.2418	µg/L	8.2418	ppb	19:53:48
1	Mn 257.610†	131392.4	128892.6	509.85	µg/L	509.85	ppb	19:53:43
1	Mo 202.031†	31.4	26.1	3.9266	µg/L	3.9266	ppb	19:54:09
1	Ni 231.604†	882.4	572.1	43.670	µg/L	43.670	ppb	19:54:09
1	P 214.914†	52.8	28.3	58.177	µg/L	58.177	ppb	19:54:09
1	Pb 220.353†	69.4	26.9	9.7804	µg/L	9.7804	ppb	19:54:09
1	S 181.975 Axial†	24.0	9.7	40.203	µg/L	40.203	ppb	19:54:09
1	Sb 206.836†	18.4	-2.7	-3.3572	µg/L	-3.3572	ppb	19:54:09
1	Se 196.026†	2.3	-12.8	39.127	µg/L	39.127	ppb	19:54:09
1	SiO2†	23478.7	21558.9	5052.2	µg/L	5052.2	ppb	19:53:48
1	Si 251.611†	27906.2	26899.9	2358.1	µg/L	2358.1	ppb	19:53:48
1	Sn 189.927†	8.0	-0.6	-1.3989	µg/L	-1.3989	ppb	19:54:09
1	Ti 334.940†	190929.1	186464.6	532.12	µg/L	532.12	ppb	19:53:43
1	Tl 190.801†	-29.3	-2.3	6.0648	µg/L	6.0648	ppb	19:54:09
1	U 409.014†	-490.8	-594.1	-60.938	µg/L	-60.938	ppb	19:53:43
1	V 292.402†	531.9	686.1	9.9871	µg/L	9.9871	ppb	19:53:48
1	Zn 213.857†	3381.5	2774.5	79.316	µg/L	79.316	ppb	19:54:09
2	Sc RADIAL	100820.0	100820.0	102	%			19:52:46
2	Al 396.153Radial†	6101.7	6157.1	3387.0	µg/L	3387.0	ppb	19:52:46
2	Ca 317.933Radial†	2335.1	1927.4	737.84	µg/L	737.84	ppb	19:53:07
2	Fe 238.204 Radial†	1927.4	1864.9	17365	µg/L	17365	ppb	19:53:07
2	K 766.490 Radial†	1509.0	1253.3	747.39	µg/L	747.39	ppb	19:52:46
2	Mg 279.077 IEC†	68.0	58.3	683.38	µg/L	683.38	ppb	19:53:07
2	Na 589.592 Radial†	1123.7	855.6	367.60	µg/L	367.60	ppb	19:52:46
2	Sr 421.552†	1352.2	1180.1	5.9899	µg/L	5.9899	ppb	19:52:46
2	Sc 361.383	1610797.7	1610797.7	101.15	%			19:54:15
2	Y 371.029	1139295.0	1139295.0	102.39	%			19:54:15
2	Ag 328.068†	249.5	24.8	1.6339	µg/L	1.6339	ppb	19:54:21
2	As 188.979†	10.7	9.0	15.584	µg/L	15.584	ppb	19:54:41
2	B 249.677†	1236.6	-115.8	-15.616	µg/L	-15.616	ppb	19:54:21
2	Ba 233.527†	1458.1	1469.1	40.672	µg/L	40.672	ppb	19:54:41
2	Be 313.107†	1595.6	3801.4	2.7190	µg/L	2.7190	ppb	19:54:21
2	Cd 226.502†	26.6	168.2	3.4318	µg/L	3.4318	ppb	19:54:41
2	Co 228.616†	244.6	227.9	11.570	µg/L	11.570	ppb	19:54:41
2	Cr 267.716†	638.1	551.8	15.509	µg/L	15.509	ppb	19:54:41
2	Cu 324.752†	3634.2	931.0	10.409	µg/L	10.409	ppb	19:54:21
2	Mn 257.610†	133208.3	132250.5	523.10	µg/L	523.10	ppb	19:54:15
2	Mo 202.031†	50.9	45.9	6.3931	µg/L	6.3931	ppb	19:54:41
2	Ni 231.604†	905.6	605.5	46.206	µg/L	46.206	ppb	19:54:41
2	P 214.914†	52.6	28.7	58.951	µg/L	58.951	ppb	19:54:41
2	Pb 220.353†	71.3	29.5	10.691	µg/L	10.691	ppb	19:54:41

2	S 181.975 Axial†	20.7	6.7	27.865 µg/L	27.865 ppb	19:54:41
2	Sb 206.836†	21.8	0.8	0.8453 µg/L	0.8453 ppb	19:54:41
2	Se 196.026†	1.6	-13.5	38.437 µg/L	38.437 ppb	19:54:41
2	SiO2†	23710.7	22067.5	5171.4 µg/L	5171.4 ppb	19:54:21
2	Si 251.611†	28172.6	27495.3	2410.3 µg/L	2410.3 ppb	19:54:21
2	Sn 189.927†	19.7	11.1	4.4826 µg/L	4.4826 ppb	19:54:41
2	Ti 334.940†	193725.3	191499.8	546.49 µg/L	546.49 ppb	19:54:15
2	Tl 190.801†	-32.5	-5.9	1.8079 µg/L	1.8079 ppb	19:54:41
2	U 409.014†	-502.3	-611.3	-62.642 µg/L	-62.642 ppb	19:54:15
2	V 292.402†	635.9	795.3	11.500 µg/L	11.500 ppb	19:54:21
2	Zn 213.857†	3462.5	2894.8	82.783 µg/L	82.783 ppb	19:54:41
3	Sc RADIAL	100891.8	100891.8	102 %		19:53:12
3	Al 396.153Radial†	6152.4	6202.6	3412.0 µg/L	3412.0 ppb	19:53:12
3	Ca 317.933Radial†	2319.1	1910.1	731.19 µg/L	731.19 ppb	19:53:32
3	Fe 238.204 Radial†	1930.5	1866.5	17380 µg/L	17380 ppb	19:53:32
3	K 766.490 Radial†	1648.8	1389.2	828.45 µg/L	828.45 ppb	19:53:12
3	Mg 279.077 IEC†	67.5	57.8	677.32 µg/L	677.32 ppb	19:53:32
3	Na 589.592 Radial†	1177.7	907.7	389.97 µg/L	389.97 ppb	19:53:12
3	Sr 421.552†	1394.2	1220.3	6.1939 µg/L	6.1939 ppb	19:53:12
3	Sc 361.383	1597900.4	1597900.4	100.34 %		19:54:48
3	Y 371.029	1128381.7	1128381.7	101.41 %		19:54:48
3	Ag 328.068†	441.1	217.8	3.4101 µg/L	3.4101 ppb	19:54:53
3	As 188.979†	8.0	6.3	10.267 µg/L	10.267 ppb	19:55:14
3	B 249.677†	1241.0	-101.5	-14.816 µg/L	-14.816 ppb	19:54:53
3	Ba 233.527†	1360.7	1383.7	38.310 µg/L	38.310 ppb	19:55:14
3	Be 313.107†	4565.2	6773.5	5.0142 µg/L	5.0142 ppb	19:54:53
3	Cd 226.502†	67.4	209.1	4.7255 µg/L	4.7255 ppb	19:55:14
3	Co 228.616†	246.9	232.2	11.845 µg/L	11.845 ppb	19:55:14
3	Cr 267.716†	611.7	530.5	14.912 µg/L	14.912 ppb	19:55:14
3	Cu 324.752†	3872.6	1197.6	12.458 µg/L	12.458 ppb	19:54:53
3	Mn 257.610†	128628.0	128749.0	509.28 µg/L	509.28 ppb	19:54:48
3	Mo 202.031†	60.1	55.4	7.5896 µg/L	7.5896 ppb	19:55:14
3	Ni 231.604†	854.4	561.8	42.884 µg/L	42.884 ppb	19:55:14
3	P 214.914†	48.0	24.6	48.390 µg/L	48.390 ppb	19:55:14
3	Pb 220.353†	82.1	40.8	14.577 µg/L	14.577 ppb	19:55:14
3	S 181.975 Axial†	18.6	4.8	19.858 µg/L	19.858 ppb	19:55:14
3	Sb 206.836†	22.6	1.8	2.0537 µg/L	2.0537 ppb	19:55:14
3	Se 196.026†	8.6	-6.5	47.840 µg/L	47.840 ppb	19:55:14
3	SiO2†	22664.1	21213.8	4971.3 µg/L	4971.3 ppb	19:54:53
3	Si 251.611†	26844.5	26396.4	2314.0 µg/L	2314.0 ppb	19:54:53
3	Sn 189.927†	15.4	6.9	2.3781 µg/L	2.3781 ppb	19:55:14
3	Ti 334.940†	186106.8	185453.3	529.23 µg/L	529.23 ppb	19:54:48
3	Tl 190.801†	-30.6	-4.2	3.6326 µg/L	3.6326 ppb	19:55:14
3	U 409.014†	-575.4	-688.2	-70.212 µg/L	-70.212 ppb	19:54:48
3	V 292.402†	752.7	916.7	13.156 µg/L	13.156 ppb	19:54:53
3	Zn 213.857†	3139.0	2600.1	74.255 µg/L	74.255 ppb	19:55:14

Mean Data: 1202042556|952945|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1613037.3	101.30	%	1.028				1.01%
Sc RADIAL	100858.3	102	%	0.0				0.04%
Y 371.029	1139709.7	102.43	%	1.037				1.01%
Ag 328.068†	60.1	1.9558	µg/L	1.32304	1.9558	ppb	1.32304	67.65%
Al 396.153Radial†	6165.8	3391.8	µg/L	18.26	3391.8	ppb	18.26	0.54%
As 188.979†	6.0	9.7737	µg/L	6.07172	9.7737	ppb	6.07172	62.12%
B 249.677†	-128.5	-16.337	µg/L	1.9833	-16.337	ppb	1.9833	12.14%
Ba 233.527†	1410.3	39.043	µg/L	1.4129	39.043	ppb	1.4129	3.62%
Be 313.107†	4212.6	3.0396	µg/L	1.83541	3.0396	ppb	1.83541	60.38%
Ca 317.933Radial†	1919.2	734.68	µg/L	3.340	734.68	ppb	3.340	0.45%
Cd 226.502†	160.1	3.1741	µg/L	1.69494	3.1741	ppb	1.69494	53.40%
Co 228.616†	213.8	10.802	µg/L	1.5735	10.802	ppb	1.5735	14.57%
Cr 267.716†	517.8	14.552	µg/L	1.1781	14.552	ppb	1.1781	8.10%
Cu 324.752†	926.1	10.370	µg/L	2.1085	10.370	ppb	2.1085	20.33%
Fe 238.204 Radial†	1863.5	17352	µg/L	35.9	17352	ppb	35.9	0.21%
K 766.490 Radial†	1296.4	773.13	µg/L	47.944	773.13	ppb	47.944	6.20%
Mg 279.077 IEC†	57.0	667.98	µg/L	21.643	667.98	ppb	21.643	3.24%
Mn 257.610†	129964.0	514.08	µg/L	7.822	514.08	ppb	7.822	1.52%
Mo 202.031†	42.5	5.9697	µg/L	1.86782	5.9697	ppb	1.86782	31.29%
Na 589.592 Radial†	887.8	381.44	µg/L	12.097	381.44	ppb	12.097	3.17%

Ni 231.604†	579.8	44.253	µg/L	1.7362	44.253	ppb	1.7362	3.92%
P 214.914†	27.2	55.173	µg/L	5.8865	55.173	ppb	5.8865	10.67%
Pb 220.353†	32.4	11.683	µg/L	2.5472	11.683	ppb	2.5472	21.80%
S 181.975 Axial†	7.0	29.309	µg/L	10.2493	29.309	ppb	10.2493	34.97%
Sb 206.836†	-0.1	-0.1527	µg/L	2.84016	-0.1527	ppb	2.84016	>999.9%
Se 196.026†	-11.0	41.801	µg/L	5.2409	41.801	ppb	5.2409	12.54%
SiO2†	21613.4	5065.0	µg/L	100.64	5065.0	ppb	100.64	1.99%
Si 251.611†	26930.5	2360.8	µg/L	48.22	2360.8	ppb	48.22	2.04%
Sn 189.927†	5.8	1.8206	µg/L	2.98012	1.8206	ppb	2.98012	163.69%
Sr 421.552†	1213.8	6.1609	µg/L	0.15718	6.1609	ppb	0.15718	2.55%
Ti 334.940†	187805.9	535.94	µg/L	9.242	535.94	ppb	9.242	1.72%
Tl 190.801†	-4.1	3.8351	µg/L	2.13569	3.8351	ppb	2.13569	55.69%
U 409.014†	-631.2	-64.597	µg/L	4.9364	-64.597	ppb	4.9364	7.64%
V 292.402†	799.4	11.548	µg/L	1.5851	11.548	ppb	1.5851	13.73%
Zn 213.857†	2756.5	78.785	µg/L	4.2887	78.785	ppb	4.2887	5.44%

Sequence No.: 39
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/27/2010 19:55:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	101814.0	101814.0	103	%			19:55:58
1	Al 396.153Radial†	9538.3	9436.2	5180.1	µg/L	5180.1	ppb	19:55:58
1	Ca 317.933Radial†	14166.4	13395.2	5127.8	µg/L	5127.8	ppb	19:56:19
1	Fe 238.204 Radial†	594.0	551.5	5145.8	µg/L	5145.8	ppb	19:56:19
1	K 766.490 Radial†	8795.0	8314.7	4958.6	µg/L	4958.6	ppb	19:55:58
1	Mg 279.077 IEC†	458.7	437.2	5265.2	µg/L	5265.2	ppb	19:56:19
1	Na 589.592 Radial†	24260.2	23314.1	10017	µg/L	10017	ppb	19:55:58
1	Sr 421.552†	99039.7	96037.4	487.47	µg/L	487.47	ppb	19:55:58
1	Sc 361.383	1604449.1	1604449.1	100.76	%			19:57:21
1	Y 371.029	1118536.7	1118536.7	100.53	%			19:57:21
1	Ag 328.068†	55898.0	55256.7	508.93	µg/L	508.93	ppb	19:57:27
1	As 188.979†	269.3	265.7	525.47	µg/L	525.47	ppb	19:57:47
1	B 249.677†	10025.4	8611.9	487.67	µg/L	487.67	ppb	19:57:27
1	Ba 233.527†	18810.9	18697.4	518.31	µg/L	518.31	ppb	19:57:27
1	Be 313.107†	663119.6	660366.7	508.31	µg/L	508.31	ppb	19:57:21
1	Cd 226.502†	16338.0	16357.3	519.93	µg/L	519.93	ppb	19:57:27
1	Co 228.616†	9444.9	9360.1	521.19	µg/L	521.19	ppb	19:57:27
1	Cr 267.716†	18872.7	18652.0	524.32	µg/L	524.32	ppb	19:57:27
1	Cu 324.752†	70180.2	66991.8	515.10	µg/L	515.10	ppb	19:57:27
1	Mn 257.610†	132014.1	131586.4	519.45	µg/L	519.45	ppb	19:57:27
1	Mo 202.031†	4274.0	4237.4	530.01	µg/L	530.01	ppb	19:57:47
1	Ni 231.604†	7407.6	7062.3	535.89	µg/L	535.89	ppb	19:57:47
1	P 214.914†	1072.1	1040.8	2588.1	µg/L	2588.1	ppb	19:57:47
1	Pb 220.353†	1596.0	1543.1	527.85	µg/L	527.85	ppb	19:57:47
1	S 181.975 Axial†	267.0	251.2	1045.9	µg/L	1045.9	ppb	19:57:47
1	Sb 206.836†	464.7	440.5	523.72	µg/L	523.72	ppb	19:57:47
1	Se 196.026†	404.3	386.2	535.14	µg/L	535.14	ppb	19:57:47
1	SiO2†	25221.4	23659.7	5544.5	µg/L	5544.5	ppb	19:57:27
1	Si 251.611†	30155.4	29573.3	2592.5	µg/L	2592.5	ppb	19:57:27
1	Sn 189.927†	1069.4	1053.0	531.86	µg/L	531.86	ppb	19:57:47
1	Ti 334.940†	179549.6	178188.2	508.20	µg/L	508.20	ppb	19:57:21
1	Tl 190.801†	387.4	410.7	521.93	µg/L	521.93	ppb	19:57:47
1	U 409.014†	5296.4	5141.9	505.19	µg/L	505.19	ppb	19:57:27
1	V 292.402†	38157.0	38037.2	524.73	µg/L	524.73	ppb	19:57:27
1	Zn 213.857†	18727.7	18059.0	519.43	µg/L	519.43	ppb	19:57:27
2	Sc RADIAL	103246.0	103246.0	104	%			19:56:24
2	Al 396.153Radial†	9568.2	9336.3	5125.4	µg/L	5125.4	ppb	19:56:24
2	Ca 317.933Radial†	14170.3	13208.1	5056.2	µg/L	5056.2	ppb	19:56:45
2	Fe 238.204 Radial†	588.3	538.0	5020.4	µg/L	5020.4	ppb	19:56:45
2	K 766.490 Radial†	8884.4	8281.9	4939.0	µg/L	4939.0	ppb	19:56:24
2	Mg 279.077 IEC†	461.5	433.6	5222.4	µg/L	5222.4	ppb	19:56:45
2	Na 589.592 Radial†	24297.6	23023.1	9891.6	µg/L	9891.6	ppb	19:56:24
2	Sr 421.552†	99334.9	94986.0	482.13	µg/L	482.13	ppb	19:56:24
2	Sc 361.383	1613757.1	1613757.1	101.34	%			19:57:53
2	Y 371.029	1123442.4	1123442.4	100.97	%			19:57:53
2	Ag 328.068†	55837.3	54876.8	505.41	µg/L	505.41	ppb	19:57:59
2	As 188.979†	267.8	262.7	519.49	µg/L	519.49	ppb	19:58:19
2	B 249.677†	9961.1	8491.0	480.85	µg/L	480.85	ppb	19:57:59
2	Ba 233.527†	18714.5	18494.6	512.69	µg/L	512.69	ppb	19:57:59
2	Be 313.107†	659361.5	652862.2	502.54	µg/L	502.54	ppb	19:57:53
2	Cd 226.502†	16242.2	16169.3	513.95	µg/L	513.95	ppb	19:57:59
2	Co 228.616†	9421.3	9282.7	516.88	µg/L	516.88	ppb	19:57:59
2	Cr 267.716†	18708.9	18382.4	516.75	µg/L	516.75	ppb	19:57:59
2	Cu 324.752†	69985.4	66397.8	510.51	µg/L	510.51	ppb	19:57:59
2	Mn 257.610†	131467.5	130291.4	514.33	µg/L	514.33	ppb	19:57:59
2	Mo 202.031†	4211.1	4150.9	519.19	µg/L	519.19	ppb	19:58:19
2	Ni 231.604†	7299.0	6912.7	524.53	µg/L	524.53	ppb	19:58:19
2	P 214.914†	1050.8	1013.7	2519.8	µg/L	2519.8	ppb	19:58:19
2	Pb 220.353†	1580.4	1518.6	519.44	µg/L	519.44	ppb	19:58:19

2	S 181.975 Axial†	263.6	246.3	1025.7 µg/L	1025.7 ppb	19:58:19
2	Sb 206.836†	454.2	427.4	508.22 µg/L	508.22 ppb	19:58:19
2	Se 196.026†	398.4	378.0	523.66 µg/L	523.66 ppb	19:58:19
2	SiO2†	25248.0	23541.5	5516.8 µg/L	5516.8 ppb	19:57:59
2	Si 251.611†	30200.2	29444.9	2581.2 µg/L	2581.2 ppb	19:57:59
2	Sn 189.927†	1059.6	1037.2	523.89 µg/L	523.89 ppb	19:58:19
2	Ti 334.940†	178869.6	176489.4	503.36 µg/L	503.36 ppb	19:57:53
2	Tl 190.801†	385.8	406.9	517.09 µg/L	517.09 ppb	19:58:19
2	U 409.014†	5417.7	5231.3	514.02 µg/L	514.02 ppb	19:57:59
2	V 292.402†	37965.7	37630.0	519.08 µg/L	519.08 ppb	19:57:59
2	Zn 213.857†	18576.6	17802.7	512.07 µg/L	512.07 ppb	19:57:59
3	Sc RADIAL	102351.0	102351.0	104 %		19:56:50
3	Al 396.153Radial†	9542.7	9391.9	5157.6 µg/L	5157.6 ppb	19:56:50
3	Ca 317.933Radial†	14157.2	13314.1	5096.7 µg/L	5096.7 ppb	19:57:11
3	Fe 238.204 Radial†	589.7	544.3	5077.8 µg/L	5077.8 ppb	19:57:11
3	K 766.490 Radial†	8876.6	8348.7	4978.9 µg/L	4978.9 ppb	19:56:50
3	Mg 279.077 IEC†	451.7	428.1	5154.2 µg/L	5154.2 ppb	19:57:11
3	Na 589.592 Radial†	24274.8	23204.5	9969.5 µg/L	9969.5 ppb	19:56:50
3	Sr 421.552†	99437.7	95917.2	486.86 µg/L	486.86 ppb	19:56:50
3	Sc 361.383	1623629.2	1623629.2	101.96 %		19:58:25
3	Y 371.029	1131842.7	1131842.7	101.73 %		19:58:25
3	Ag 328.068†	52481.8	51250.8	471.90 µg/L	471.90 ppb	19:58:31
3	As 188.979†	231.3	225.2	445.25 µg/L	445.25 ppb	19:58:51
3	B 249.677†	9397.0	7878.0	445.87 µg/L	445.87 ppb	19:58:31
3	Ba 233.527†	17073.9	16773.3	464.95 µg/L	464.95 ppb	19:58:31
3	Be 313.107†	621219.0	611497.1	470.70 µg/L	470.70 ppb	19:58:25
3	Cd 226.502†	14726.9	14585.6	463.52 µg/L	463.52 ppb	19:58:31
3	Co 228.616†	8487.7	8310.6	462.68 µg/L	462.68 ppb	19:58:31
3	Cr 267.716†	16476.4	16080.5	452.04 µg/L	452.04 ppb	19:58:31
3	Cu 324.752†	63715.2	59828.3	460.11 µg/L	460.11 ppb	19:58:31
3	Mn 257.610†	119109.8	117382.5	463.38 µg/L	463.38 ppb	19:58:31
3	Mo 202.031†	3558.8	3485.9	436.04 µg/L	436.04 ppb	19:58:51
3	Ni 231.604†	6229.9	5820.4	441.62 µg/L	441.62 ppb	19:58:51
3	P 214.914†	910.3	869.6	2158.5 µg/L	2158.5 ppb	19:58:51
3	Pb 220.353†	1399.3	1331.5	455.44 µg/L	455.44 ppb	19:58:51
3	S 181.975 Axial†	235.0	216.7	902.48 µg/L	902.48 ppb	19:58:51
3	Sb 206.836†	400.8	372.3	442.38 µg/L	442.38 ppb	19:58:51
3	Se 196.026†	347.3	325.5	452.90 µg/L	452.90 ppb	19:58:51
3	SiO2†	23566.1	21740.5	5094.7 µg/L	5094.7 ppb	19:58:31
3	Si 251.611†	28054.0	27158.8	2380.8 µg/L	2380.8 ppb	19:58:31
3	Sn 189.927†	876.3	851.0	429.90 µg/L	429.90 ppb	19:58:51
3	Ti 334.940†	168414.8	165162.5	471.04 µg/L	471.04 ppb	19:58:25
3	Tl 190.801†	345.7	365.3	464.35 µg/L	464.35 ppb	19:58:51
3	U 409.014†	4721.9	4516.4	443.62 µg/L	443.62 ppb	19:58:31
3	V 292.402†	33950.4	33464.1	461.40 µg/L	461.40 ppb	19:58:31
3	Zn 213.857†	16862.5	16010.0	460.58 µg/L	460.58 ppb	19:58:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1613945.1	101.35	%	0.602				0.59%
Sc RADIAL	102470.3	104	%	0.7				0.71%
Y 371.029	1124607.3	101.07	%	0.605				0.60%
Ag 328.068†	53794.8	495.42	µg/L	20.442	495.42	ppb	20.442	4.13%
QC value within limits for Ag 328.068 Recovery = 99.08%								
Al 396.153Radial†	9388.1	5154.4	µg/L	27.50	5154.4	ppb	27.50	0.53%
QC value within limits for Al 396.153Radial Recovery = 103.09%								
As 188.979†	251.2	496.74	µg/L	44.692	496.74	ppb	44.692	9.00%
QC value within limits for As 188.979 Recovery = 99.35%								
B 249.677†	8327.0	471.46	µg/L	22.424	471.46	ppb	22.424	4.76%
QC value within limits for B 249.677 Recovery = 94.29%								
Ba 233.527†	17988.5	498.65	µg/L	29.316	498.65	ppb	29.316	5.88%
QC value within limits for Ba 233.527 Recovery = 99.73%								
Be 313.107†	641575.3	493.85	µg/L	20.258	493.85	ppb	20.258	4.10%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	13305.8	5093.6	µg/L	35.92	5093.6	ppb	35.92	0.71%
QC value within limits for Ca 317.933Radial Recovery = 101.87%								
Cd 226.502†	15704.1	499.14	µg/L	30.986	499.14	ppb	30.986	6.21%
QC value within limits for Cd 226.502 Recovery = 99.83%								
Co 228.616†	8984.5	500.25	µg/L	32.608	500.25	ppb	32.608	6.52%

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   QC value within limits for Co 228.616  Recovery = 100.05%
Cr 267.716†            17705.0      497.70 µg/L        39.725      497.70 ppb         39.725   7.98%
   QC value within limits for Cr 267.716  Recovery = 99.54%
Cu 324.752†            64406.0      495.24 µg/L        30.512      495.24 ppb         30.512   6.16%
   QC value within limits for Cu 324.752  Recovery = 99.05%
Fe 238.204 Radial†       544.6      5081.3 µg/L         62.76      5081.3 ppb          62.76   1.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.63%
K 766.490 Radial†       8315.1      4958.8 µg/L         19.94      4958.8 ppb          19.94   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 99.18%
Mg 279.077 IEC†          433.0      5214.0 µg/L         55.96      5214.0 ppb          55.96   1.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.28%
Mn 257.610†           126420.1      499.05 µg/L        31.002      499.05 ppb         31.002   6.21%
   QC value within limits for Mn 257.610  Recovery = 99.81%
Mo 202.031†             3958.1      495.08 µg/L        51.415      495.08 ppb         51.415  10.39%
   QC value within limits for Mo 202.031  Recovery = 99.02%
Na 589.592 Radial†     23180.6      9959.2 µg/L         63.15      9959.2 ppb          63.15   0.63%
   QC value within limits for Na 589.592 Radial  Recovery = 99.59%
Ni 231.604†             6598.5      500.68 µg/L        51.459      500.68 ppb         51.459  10.28%
   QC value within limits for Ni 231.604  Recovery = 100.14%
P 214.914†               974.7      2422.1 µg/L        230.82      2422.1 ppb         230.82   9.53%
   QC value within limits for P 214.914  Recovery = 96.89%
Pb 220.353†             1464.4      500.91 µg/L        39.601      500.91 ppb         39.601   7.91%
   QC value within limits for Pb 220.353  Recovery = 100.18%
S 181.975 Axial†         238.1      991.36 µg/L        77.629      991.36 ppb         77.629   7.83%
   QC value within limits for S 181.975 Axial  Recovery = 99.14%
Sb 206.836†              413.4      491.44 µg/L        43.187      491.44 ppb         43.187   8.79%
   QC value within limits for Sb 206.836  Recovery = 98.29%
Se 196.026†              363.2      503.90 µg/L        44.540      503.90 ppb         44.540   8.84%
   QC value within limits for Se 196.026  Recovery = 100.78%
SiO2†                  22980.6      5385.3 µg/L        252.04      5385.3 ppb         252.04   4.68%
   QC value within limits for SiO2  Recovery = 100.71%
Si 251.611†            28725.7      2518.2 µg/L        119.09      2518.2 ppb         119.09   4.73%
   QC value within limits for Si 251.611  Recovery = 100.73%
Sn 189.927†              980.4      495.22 µg/L        56.705      495.22 ppb         56.705  11.45%
   QC value within limits for Sn 189.927  Recovery = 99.04%
Sr 421.552†            95646.9      485.49 µg/L         2.921      485.49 ppb          2.921   0.60%
   QC value within limits for Sr 421.552  Recovery = 97.10%
Ti 334.940†           173280.0      494.20 µg/L        20.205      494.20 ppb         20.205   4.09%
   QC value within limits for Ti 334.940  Recovery = 98.84%
Tl 190.801†              394.3      501.12 µg/L        31.936      501.12 ppb         31.936   6.37%
   QC value within limits for Tl 190.801  Recovery = 100.22%
U 409.014†              4963.2      487.61 µg/L        38.351      487.61 ppb         38.351   7.87%
   QC value within limits for U 409.014  Recovery = 97.52%
V 292.402†             36377.1      501.74 µg/L        35.042      501.74 ppb         35.042   6.98%
   QC value within limits for V 292.402  Recovery = 100.35%
Zn 213.857†            17290.6      497.36 µg/L        32.061      497.36 ppb         32.061   6.45%
   QC value within limits for Zn 213.857  Recovery = 99.47%
All analyte(s) passed QC.
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Sequence No.: 40
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/27/2010 19:59:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	99628.1	99628.1	101	%			19:59:33
1	Al 396.153Radial†	-190.5	-16.1	-8.8937	µg/L	-8.8937	ppb	19:59:33
1	Ca 317.933Radial†	356.7	-8.7	-3.3422	µg/L	-3.3422	ppb	19:59:53
1	Fe 238.204 Radial†	30.5	4.8	44.899	µg/L	44.899	ppb	19:59:53
1	K 766.490 Radial†	219.6	-8.7	-5.2127	µg/L	-5.2127	ppb	19:59:33
1	Mg 279.077 IEC†	6.8	-1.5	-18.529	µg/L	-18.529	ppb	19:59:53
1	Na 589.592 Radial†	207.2	-40.9	-17.554	µg/L	-17.554	ppb	19:59:33
1	Sr 421.552†	177.7	30.3	0.1538	µg/L	0.1538	ppb	19:59:33
1	Sc 361.383	1611623.3	1611623.3	101.21	%			20:00:55
1	Y 371.029	1125948.8	1125948.8	101.20	%			20:00:55
1	Ag 328.068†	253.0	28.2	0.2640	µg/L	0.2640	ppb	20:01:01
1	As 188.979†	2.0	0.3	0.6564	µg/L	0.6564	ppb	20:01:21
1	B 249.677†	995.2	-355.0	-20.199	µg/L	-20.199	ppb	20:01:01
1	Ba 233.527†	-10.5	17.4	0.4817	µg/L	0.4817	ppb	20:01:21
1	Be 313.107†	-1770.8	474.3	0.3650	µg/L	0.3650	ppb	20:01:01
1	Cd 226.502†	-128.5	14.9	0.4700	µg/L	0.4700	ppb	20:01:21
1	Co 228.616†	19.0	4.8	0.2694	µg/L	0.2694	ppb	20:01:21
1	Cr 267.716†	115.4	35.0	0.9838	µg/L	0.9838	ppb	20:01:21
1	Cu 324.752†	2587.7	-104.9	-0.7963	µg/L	-0.7963	ppb	20:01:01
1	Mn 257.610†	-385.9	181.8	0.7217	µg/L	0.7217	ppb	20:01:21
1	Mo 202.031†	11.3	6.7	0.8353	µg/L	0.8353	ppb	20:01:21
1	Ni 231.604†	305.6	12.3	0.9339	µg/L	0.9339	ppb	20:01:21
1	P 214.914†	19.8	-3.7	-9.3431	µg/L	-9.3431	ppb	20:01:21
1	Pb 220.353†	37.1	-4.3	-1.4635	µg/L	-1.4635	ppb	20:01:21
1	S 181.975 Axial†	18.6	4.6	19.230	µg/L	19.230	ppb	20:01:21
1	Sb 206.836†	20.4	-0.6	-0.7116	µg/L	-0.7116	ppb	20:01:21
1	Se 196.026†	15.8	0.6	0.9126	µg/L	0.9126	ppb	20:01:21
1	SiO2†	1377.4	-11.5	-2.6882	µg/L	-2.6882	ppb	20:01:01
1	Si 251.611†	444.3	83.3	7.2983	µg/L	7.2983	ppb	20:01:21
1	Sn 189.927†	7.8	-0.8	-0.3882	µg/L	-0.3882	ppb	20:01:21
1	Ti 334.940†	244.9	228.3	0.6528	µg/L	0.6528	ppb	20:01:01
1	Tl 190.801†	-25.8	0.8	0.9908	µg/L	0.9908	ppb	20:01:21
1	U 409.014†	114.0	-2.1	-0.2125	µg/L	-0.2125	ppb	20:01:01
1	V 292.402†	-139.6	28.7	0.4017	µg/L	0.4017	ppb	20:01:01
1	Zn 213.857†	554.2	19.4	0.5579	µg/L	0.5579	ppb	20:01:21
2	Sc RADIAL	100517.7	100517.7	102	%			19:59:59
2	Al 396.153Radial†	-167.7	8.0	4.3513	µg/L	4.3513	ppb	19:59:59
2	Ca 317.933Radial†	356.7	-11.9	-4.5414	µg/L	-4.5414	ppb	20:00:19
2	Fe 238.204 Radial†	27.4	1.5	14.160	µg/L	14.160	ppb	20:00:19
2	K 766.490 Radial†	221.2	-9.1	-5.4362	µg/L	-5.4362	ppb	19:59:59
2	Mg 279.077 IEC†	9.3	0.8	9.6380	µg/L	9.6380	ppb	20:00:19
2	Na 589.592 Radial†	226.7	-23.4	-10.070	µg/L	-10.070	ppb	19:59:59
2	Sr 421.552†	144.4	-4.1	-0.0206	µg/L	-0.0206	ppb	19:59:59
2	Sc 361.383	1603055.4	1603055.4	100.67	%			20:01:27
2	Y 371.029	1120602.9	1120602.9	100.71	%			20:01:27
2	Ag 328.068†	264.5	41.0	0.3835	µg/L	0.3835	ppb	20:01:32
2	As 188.979†	2.9	1.2	2.3853	µg/L	2.3853	ppb	20:01:53
2	B 249.677†	1037.7	-307.4	-17.479	µg/L	-17.479	ppb	20:01:32
2	Ba 233.527†	31.2	58.7	1.6257	µg/L	1.6257	ppb	20:01:53
2	Be 313.107†	-815.3	1414.2	1.0884	µg/L	1.0884	ppb	20:01:32
2	Cd 226.502†	-93.9	48.7	1.5476	µg/L	1.5476	ppb	20:01:53
2	Co 228.616†	36.2	22.1	1.2303	µg/L	1.2303	ppb	20:01:53
2	Cr 267.716†	149.3	69.3	1.9475	µg/L	1.9475	ppb	20:01:53
2	Cu 324.752†	2679.4	-0.1	0.0020	µg/L	0.0020	ppb	20:01:32
2	Mn 257.610†	-72.6	491.0	1.9387	µg/L	1.9387	ppb	20:01:53
2	Mo 202.031†	25.8	21.1	2.6393	µg/L	2.6393	ppb	20:01:53
2	Ni 231.604†	322.5	30.6	2.3256	µg/L	2.3256	ppb	20:01:53
2	P 214.914†	28.5	5.1	12.972	µg/L	12.972	ppb	20:01:53
2	Pb 220.353†	51.4	10.1	3.4580	µg/L	3.4580	ppb	20:01:53

2	S 181.975 Axial†	19.6	5.7	23.618 µg/L	23.618 ppb	20:01:53
2	Sb 206.836†	21.3	0.4	0.5431 µg/L	0.5431 ppb	20:01:53
2	Se 196.026†	10.6	-4.6	-6.1701 µg/L	-6.1701 ppb	20:01:53
2	SiO2†	1444.4	62.4	14.618 µg/L	14.618 ppb	20:01:32
2	Si 251.611†	526.1	166.9	14.629 µg/L	14.629 ppb	20:01:53
2	Sn 189.927†	17.3	8.8	4.4323 µg/L	4.4323 ppb	20:01:53
2	Ti 334.940†	512.4	495.2	1.4125 µg/L	1.4125 ppb	20:01:32
2	Tl 190.801†	-25.5	0.9	1.1937 µg/L	1.1937 ppb	20:01:53
2	U 409.014†	131.3	15.7	1.5420 µg/L	1.5420 ppb	20:01:32
2	V 292.402†	-78.4	88.7	1.2364 µg/L	1.2364 ppb	20:01:32
2	Zn 213.857†	591.3	59.2	1.7044 µg/L	1.7044 ppb	20:01:53
3	Sc RADIAL	100268.6	100268.6	101 %		20:00:25
3	Al 396.153Radial†	-200.9	-25.1	-13.907 µg/L	-13.907 ppb	20:00:25
3	Ca 317.933Radial†	365.7	-2.1	-0.8163 µg/L	-0.8163 ppb	20:00:45
3	Fe 238.204 Radial†	28.7	2.9	26.979 µg/L	26.979 ppb	20:00:45
3	K 766.490 Radial†	276.4	45.9	27.352 µg/L	27.352 ppb	20:00:25
3	Mg 279.077 IEC†	12.3	3.8	45.297 µg/L	45.297 ppb	20:00:45
3	Na 589.592 Radial†	172.4	-76.4	-32.834 µg/L	-32.834 ppb	20:00:25
3	Sr 421.552†	196.3	47.5	0.2410 µg/L	0.2410 ppb	20:00:25
3	Sc 361.383	1609172.9	1609172.9	101.05 %		20:01:59
3	Y 371.029	1123910.2	1123910.2	101.01 %		20:01:59
3	Ag 328.068†	362.2	136.7	1.2744 µg/L	1.2744 ppb	20:02:04
3	As 188.979†	0.9	-0.7	-1.4941 µg/L	-1.4941 ppb	20:02:25
3	B 249.677†	1033.4	-315.6	-17.947 µg/L	-17.947 ppb	20:02:04
3	Ba 233.527†	84.4	111.3	3.0848 µg/L	3.0848 ppb	20:02:25
3	Be 313.107†	1566.9	3774.6	2.9053 µg/L	2.9053 ppb	20:02:04
3	Cd 226.502†	-36.7	105.6	3.3586 µg/L	3.3586 ppb	20:02:25
3	Co 228.616†	72.5	57.9	3.2215 µg/L	3.2215 ppb	20:02:25
3	Cr 267.716†	224.5	143.2	4.0238 µg/L	4.0238 ppb	20:02:25
3	Cu 324.752†	2965.5	272.9	2.0994 µg/L	2.0994 ppb	20:02:04
3	Mn 257.610†	308.4	868.4	3.4268 µg/L	3.4268 ppb	20:02:25
3	Mo 202.031†	38.6	33.7	4.2119 µg/L	4.2119 ppb	20:02:25
3	Ni 231.604†	347.1	53.8	4.0821 µg/L	4.0821 ppb	20:02:25
3	P 214.914†	30.4	6.8	17.138 µg/L	17.138 ppb	20:02:25
3	Pb 220.353†	45.9	4.5	1.5489 µg/L	1.5489 ppb	20:02:25
3	S 181.975 Axial†	15.7	1.7	7.1388 µg/L	7.1388 ppb	20:02:25
3	Sb 206.836†	24.8	3.8	4.5608 µg/L	4.5608 ppb	20:02:25
3	Se 196.026†	20.2	4.9	6.6294 µg/L	6.6294 ppb	20:02:25
3	SiO2†	1548.6	160.0	37.502 µg/L	37.502 ppb	20:02:04
3	Si 251.611†	631.8	269.4	23.620 µg/L	23.620 ppb	20:02:25
3	Sn 189.927†	18.3	9.7	4.8918 µg/L	4.8918 ppb	20:02:25
3	Ti 334.940†	1235.0	1208.4	3.4452 µg/L	3.4452 ppb	20:02:04
3	Tl 190.801†	-23.4	3.1	3.9077 µg/L	3.9077 ppb	20:02:25
3	U 409.014†	151.8	35.5	3.4923 µg/L	3.4923 ppb	20:02:04
3	V 292.402†	88.3	254.0	3.5103 µg/L	3.5103 ppb	20:02:04
3	Zn 213.857†	646.5	111.6	3.2091 µg/L	3.2091 ppb	20:02:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1607950.5	100.98	%	0.277				0.27%
Sc RADIAL	100138.2	101	%	0.5				0.46%
Y 371.029	1123487.3	100.97	%	0.242				0.24%
Ag 328.068†	68.6	0.6406	µg/L	0.55209	0.6406	ppb	0.55209	86.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.1	-6.1497	µg/L	9.43324	-6.1497	ppb	9.43324	153.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.3	0.5159	µg/L	1.94354	0.5159	ppb	1.94354	376.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-326.0	-18.542	µg/L	1.4543	-18.542	ppb	1.4543	7.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	62.4	1.7308	µg/L	1.30472	1.7308	ppb	1.30472	75.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	1887.7	1.4529	µg/L	1.30876	1.4529	ppb	1.30876	90.08%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-7.6	-2.8999	µg/L	1.90150	-2.8999	ppb	1.90150	65.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	56.4	1.7921	µg/L	1.45974	1.7921	ppb	1.45974	81.45%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.3	1.5737	µg/L	1.50569	1.5737	ppb	1.50569	95.68%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                82.5      2.3184 µg/L       1.55355      2.3184 ppb        1.55355  67.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                56.0      0.4350 µg/L       1.49563      0.4350 ppb        1.49563 343.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          3.1      28.679 µg/L       15.4401      28.679 ppb        15.4401  53.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           9.3      5.5677 µg/L      18.86612      5.5677 ppb       18.86612 338.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.0      12.135 µg/L       31.9862      12.135 ppb        31.9862 263.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               513.7      2.0291 µg/L       1.35480      2.0291 ppb        1.35480  66.77%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                20.5      2.5622 µg/L       1.68965      2.5622 ppb        1.68965  65.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -46.9     -20.153 µg/L       11.6022     -20.153 ppb        11.6022  57.57%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                32.2      2.4472 µg/L       1.57762      2.4472 ppb        1.57762  64.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.7      6.9224 µg/L      14.23955      6.9224 ppb       14.23955 205.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.4      1.1811 µg/L       2.48130      1.1811 ppb        2.48130 210.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.0      16.662 µg/L        8.5343      16.662 ppb         8.5343  51.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.2      1.4641 µg/L       2.75420      1.4641 ppb        2.75420 188.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3      0.4573 µg/L       6.41189      0.4573 ppb        6.41189 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      70.3      16.477 µg/L       20.1593      16.477 ppb        20.1593 122.35%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               173.2      15.182 µg/L        8.1748      15.182 ppb         8.1748  53.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.9      2.9786 µg/L       2.92482      2.9786 ppb        2.92482  98.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                24.6      0.1247 µg/L       0.13320      0.1247 ppb        0.13320 106.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               644.0      1.8368 µg/L       1.44372      1.8368 ppb        1.44372  78.60%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.6      2.0307 µg/L       1.62868      2.0307 ppb        1.62868  80.20%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 16.4      1.6073 µg/L       1.85327      1.6073 ppb        1.85327 115.30%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                123.8      1.7161 µg/L       1.60886      1.7161 ppb        1.60886  93.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                63.4      1.8238 µg/L       1.32960      1.8238 ppb        1.32960  72.90%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 41 **Autosampler Location: 351**
Sample ID: 246837002|952945|1 **Date Collected: 2/27/2010 20:02:35**
Analyst: JWJ **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 246837002|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	101537.1	101537.1	103	%			20:03:10
1	Al 396.153Radial†	49582.1	48456.4	26656	µg/L	26656	ppb	20:03:10
1	Ca 317.933Radial†	24659.9	23651.3	9053.9	µg/L	9053.9	ppb	20:03:10
1	Fe 238.204 Radial†	9741.2	9460.7	88093	µg/L	88093	ppb	20:03:10
1	K 766.490 Radial†	11782.2	11246.9	6707.2	µg/L	6707.2	ppb	20:03:10
1	Mg 279.077 IEC†	387.5	369.1	4347.7	µg/L	4347.7	ppb	20:03:30
1	Na 589.592 Radial†	8215.9	7754.2	3331.5	µg/L	3331.5	ppb	20:03:10
1	Sr 421.552†	13351.4	12855.6	65.253	µg/L	65.253	ppb	20:03:10
1	Sc 361.383	1628967.4	1628967.4	102.30	%			20:04:33
1	Y 371.029	1216547.6	1216547.6	109.34	%			20:04:33
1	Ag 328.068†	137.8	-87.0	6.2780	µg/L	6.2780	ppb	20:04:39
1	As 188.979†	16.5	14.5	16.715	µg/L	16.715	ppb	20:04:59
1	B 249.677†	2159.8	773.0	-1.9793	µg/L	-1.9793	ppb	20:04:39
1	Ba 233.527†	12836.0	12575.6	348.06	µg/L	348.06	ppb	20:04:39
1	Be 313.107†	6131.2	8217.6	5.4792	µg/L	5.4792	ppb	20:04:39
1	Cd 226.502†	281.8	417.4	3.3448	µg/L	3.3448	ppb	20:04:59
1	Co 228.616†	1994.6	1935.9	103.27	µg/L	103.27	ppb	20:04:59
1	Cr 267.716†	1165.9	1060.7	29.826	µg/L	29.826	ppb	20:04:59
1	Cu 324.752†	7690.0	4855.7	53.827	µg/L	53.827	ppb	20:04:39
1	Mn 257.610†	749325.0	733070.4	2899.1	µg/L	2899.1	ppb	20:04:33
1	Mo 202.031†	69.9	63.8	11.326	µg/L	11.326	ppb	20:04:59
1	Ni 231.604†	708.3	402.7	31.607	µg/L	31.607	ppb	20:04:59
1	P 214.914†	198.9	171.2	365.91	µg/L	365.91	ppb	20:04:59
1	Pb 220.353†	484.7	432.9	151.73	µg/L	151.73	ppb	20:04:59
1	S 181.975 Axial†	97.5	81.5	339.32	µg/L	339.32	ppb	20:04:59
1	Sb 206.836†	15.5	-5.6	-6.9243	µg/L	-6.9243	ppb	20:04:59
1	Se 196.026†	-41.9	-56.0	210.65	µg/L	210.65	ppb	20:04:59
1	SiO2†	134468.2	130077.8	30483	µg/L	30483	ppb	20:04:39
1	Si 251.611†	168835.1	164690.1	14437	µg/L	14437	ppb	20:04:33
1	Sn 189.927†	13.0	4.3	-3.2450	µg/L	-3.2450	ppb	20:04:59
1	Ti 334.940†	798480.0	780545.2	2227.4	µg/L	2227.4	ppb	20:04:33
1	Tl 190.801†	-50.1	-22.7	13.160	µg/L	13.160	ppb	20:04:59
1	U 409.014†	-3815.9	-3845.0	-391.34	µg/L	-391.34	ppb	20:04:33
1	V 292.402†	3234.5	3328.6	48.362	µg/L	48.362	ppb	20:04:39
1	Zn 213.857†	13582.1	12749.2	364.71	µg/L	364.71	ppb	20:04:39
2	Sc RADIAL	101584.0	101584.0	103	%			20:03:36
2	Al 396.153Radial†	49612.1	48463.4	26660	µg/L	26660	ppb	20:03:36
2	Ca 317.933Radial†	24611.4	23593.0	9031.6	µg/L	9031.6	ppb	20:03:36
2	Fe 238.204 Radial†	9713.8	9429.6	87803	µg/L	87803	ppb	20:03:36
2	K 766.490 Radial†	11757.3	11217.4	6689.6	µg/L	6689.6	ppb	20:03:36
2	Mg 279.077 IEC†	384.7	366.1	4312.7	µg/L	4312.7	ppb	20:03:56
2	Na 589.592 Radial†	8198.2	7733.4	3322.5	µg/L	3322.5	ppb	20:03:36
2	Sr 421.552†	13389.7	12886.9	65.411	µg/L	65.411	ppb	20:03:36
2	Sc 361.383	1642115.7	1642115.7	103.12	%			20:05:06
2	Y 371.029	1223496.7	1223496.7	109.96	%			20:05:06
2	Ag 328.068†	95.0	-129.6	5.8707	µg/L	5.8707	ppb	20:05:11
2	As 188.979†	12.0	10.0	7.9529	µg/L	7.9529	ppb	20:05:31
2	B 249.677†	2128.3	725.6	-4.5225	µg/L	-4.5225	ppb	20:05:11
2	Ba 233.527†	12890.7	12528.2	346.75	µg/L	346.75	ppb	20:05:11
2	Be 313.107†	6194.9	8231.4	5.4990	µg/L	5.4990	ppb	20:05:11
2	Cd 226.502†	296.5	429.5	3.7602	µg/L	3.7602	ppb	20:05:31
2	Co 228.616†	1998.7	1924.2	102.67	µg/L	102.67	ppb	20:05:31
2	Cr 267.716†	1154.2	1040.2	29.252	µg/L	29.252	ppb	20:05:31
2	Cu 324.752†	7722.7	4827.3	53.553	µg/L	53.553	ppb	20:05:11
2	Mn 257.610†	746094.0	724072.1	2863.5	µg/L	2863.5	ppb	20:05:06
2	Mo 202.031†	66.9	60.4	10.883	µg/L	10.883	ppb	20:05:31
2	Ni 231.604†	698.0	387.1	30.421	µg/L	30.421	ppb	20:05:31
2	P 214.914†	194.9	165.8	352.55	µg/L	352.55	ppb	20:05:31
2	Pb 220.353†	490.3	434.6	152.30	µg/L	152.30	ppb	20:05:31

2	S 181.975 Axial†	91.8	75.2	313.07	µg/L	313.07 ppb	20:05:31
2	Sb 206.836†	19.3	-2.0	-2.7125	µg/L	-2.7125 ppb	20:05:31
2	Se 196.026†	-40.8	-54.7	211.55	µg/L	211.55 ppb	20:05:31
2	SiO2†	134868.3	129413.3	30327	µg/L	30327 ppb	20:05:11
2	Si 251.611†	168913.2	163444.3	14328	µg/L	14328 ppb	20:05:06
2	Sn 189.927†	13.2	4.4	-3.1832	µg/L	-3.1832 ppb	20:05:31
2	Ti 334.940†	796126.4	772013.0	2203.1	µg/L	2203.1 ppb	20:05:06
2	Tl 190.801†	-51.7	-23.9	11.302	µg/L	11.302 ppb	20:05:31
2	U 409.014†	-3740.7	-3742.2	-381.18	µg/L	-381.18 ppb	20:05:06
2	V 292.402†	3309.3	3375.7	49.000	µg/L	49.000 ppb	20:05:11
2	Zn 213.857†	13575.5	12636.4	361.47	µg/L	361.47 ppb	20:05:11
3	Sc RADIAL	101908.1	101908.1	103	%		20:04:01
3	Al 396.153Radial†	49917.5	48606.2	26739	µg/L	26739 ppb	20:04:01
3	Ca 317.933Radial†	24666.5	23570.3	9022.9	µg/L	9022.9 ppb	20:04:01
3	Fe 238.204 Radial†	9750.0	9434.7	87850	µg/L	87850 ppb	20:04:01
3	K 766.490 Radial†	11736.9	11161.2	6656.1	µg/L	6656.1 ppb	20:04:01
3	Mg 279.077 IEC†	386.8	366.9	4322.5	µg/L	4322.5 ppb	20:04:22
3	Na 589.592 Radial†	8269.2	7776.9	3341.2	µg/L	3341.2 ppb	20:04:01
3	Sr 421.552†	13491.2	12943.9	65.701	µg/L	65.701 ppb	20:04:01
3	Sc 361.383	1621940.2	1621940.2	101.85	%		20:05:38
3	Y 371.029	1204730.0	1204730.0	108.28	%		20:05:38
3	Ag 328.068†	152.7	-71.9	6.3854	µg/L	6.3854 ppb	20:05:43
3	As 188.979†	14.6	12.7	13.341	µg/L	13.341 ppb	20:06:04
3	B 249.677†	2114.1	737.3	-3.8885	µg/L	-3.8885 ppb	20:05:43
3	Ba 233.527†	12263.2	12067.7	334.00	µg/L	334.00 ppb	20:05:43
3	Be 313.107†	5732.1	7851.8	5.2309	µg/L	5.2309 ppb	20:05:43
3	Cd 226.502†	269.1	406.1	3.0101	µg/L	3.0101 ppb	20:06:04
3	Co 228.616†	1820.9	1773.9	94.426	µg/L	94.426 ppb	20:06:04
3	Cr 267.716†	1041.8	943.8	26.541	µg/L	26.541 ppb	20:06:04
3	Cu 324.752†	7501.1	4702.8	52.607	µg/L	52.607 ppb	20:05:43
3	Mn 257.610†	720985.0	708420.0	2801.7	µg/L	2801.7 ppb	20:05:38
3	Mo 202.031†	71.5	65.7	11.554	µg/L	11.554 ppb	20:06:04
3	Ni 231.604†	672.5	370.6	29.173	µg/L	29.173 ppb	20:06:04
3	P 214.914†	184.1	157.6	331.82	µg/L	331.82 ppb	20:06:04
3	Pb 220.353†	461.9	412.5	144.77	µg/L	144.77 ppb	20:06:04
3	S 181.975 Axial†	87.3	72.0	299.65	µg/L	299.65 ppb	20:06:04
3	Sb 206.836†	18.7	-2.4	-3.1647	µg/L	-3.1647 ppb	20:06:04
3	Se 196.026†	-37.0	-51.4	216.14	µg/L	216.14 ppb	20:06:04
3	SiO2†	129206.4	125481.3	29406	µg/L	29406 ppb	20:05:43
3	Si 251.611†	163806.5	160468.1	14067	µg/L	14067 ppb	20:05:38
3	Sn 189.927†	16.3	7.6	-1.5818	µg/L	-1.5818 ppb	20:06:04
3	Ti 334.940†	763663.8	749744.9	2139.5	µg/L	2139.5 ppb	20:05:38
3	Tl 190.801†	-43.9	-16.9	19.344	µg/L	19.344 ppb	20:06:04
3	U 409.014†	-3646.2	-3694.5	-376.49	µg/L	-376.49 ppb	20:05:38
3	V 292.402†	3080.3	3190.9	46.485	µg/L	46.485 ppb	20:05:43
3	Zn 213.857†	13062.6	12296.6	351.63	µg/L	351.63 ppb	20:05:43

Mean Data: 246837002|952945|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1631007.8	102.42	%	0.643				0.63%
Sc RADIAL	101676.4	103	%	0.2				0.20%
Y 371.029	1214924.8	109.19	%	0.853				0.78%
Ag 328.068†	-96.2	6.1780	µg/L	0.27153	6.1780	ppb	0.27153	4.40%
Al 396.153Radial†	48508.7	26685	µg/L	46.5	26685	ppb	46.5	0.17%
As 188.979†	12.4	12.670	µg/L	4.4197	12.670	ppb	4.4197	34.88%
B 249.677†	745.3	-3.4634	µg/L	1.32382	-3.4634	ppb	1.32382	38.22%
Ba 233.527†	12390.5	342.93	µg/L	7.767	342.93	ppb	7.767	2.26%
Be 313.107†	8100.3	5.4030	µg/L	0.14937	5.4030	ppb	0.14937	2.76%
Ca 317.933Radial†	23604.9	9036.1	µg/L	16.00	9036.1	ppb	16.00	0.18%
Cd 226.502†	417.7	3.3717	µg/L	0.37578	3.3717	ppb	0.37578	11.15%
Co 228.616†	1878.0	100.12	µg/L	4.944	100.12	ppb	4.944	4.94%
Cr 267.716†	1014.9	28.540	µg/L	1.7545	28.540	ppb	1.7545	6.15%
Cu 324.752†	4795.3	53.329	µg/L	0.6398	53.329	ppb	0.6398	1.20%
Fe 238.204 Radial†	9441.6	87915	µg/L	155.4	87915	ppb	155.4	0.18%
K 766.490 Radial†	11208.5	6684.3	µg/L	25.96	6684.3	ppb	25.96	0.39%
Mg 279.077 IEC†	367.4	4327.6	µg/L	18.08	4327.6	ppb	18.08	0.42%
Mn 257.610†	721854.2	2854.8	µg/L	49.25	2854.8	ppb	49.25	1.73%
Mo 202.031†	63.3	11.254	µg/L	0.3416	11.254	ppb	0.3416	3.04%
Na 589.592 Radial†	7754.8	3331.8	µg/L	9.35	3331.8	ppb	9.35	0.28%

Ni 231.604†	386.8	30.400	µg/L	1.2167	30.400	ppb	1.2167	4.00%
P 214.914†	164.8	350.09	µg/L	17.178	350.09	ppb	17.178	4.91%
Pb 220.353†	426.6	149.60	µg/L	4.191	149.60	ppb	4.191	2.80%
S 181.975 Axial†	76.2	317.35	µg/L	20.177	317.35	ppb	20.177	6.36%
Sb 206.836†	-3.3	-4.2671	µg/L	2.31221	-4.2671	ppb	2.31221	54.19%
Se 196.026†	-54.0	212.78	µg/L	2.941	212.78	ppb	2.941	1.38%
SiO2†	128324.1	30072	µg/L	582.2	30072	ppb	582.2	1.94%
Si 251.611†	162867.5	14278	µg/L	190.2	14278	ppb	190.2	1.33%
Sn 189.927†	5.4	-2.6700	µg/L	0.94293	-2.6700	ppb	0.94293	35.32%
Sr 421.552†	12895.5	65.455	µg/L	0.2272	65.455	ppb	0.2272	0.35%
Ti 334.940†	767434.4	2190.0	µg/L	45.38	2190.0	ppb	45.38	2.07%
Tl 190.801†	-21.1	14.602	µg/L	4.2104	14.602	ppb	4.2104	28.83%
U 409.014†	-3760.6	-383.00	µg/L	7.591	-383.00	ppb	7.591	1.98%
V 292.402†	3298.4	47.949	µg/L	1.3077	47.949	ppb	1.3077	2.73%
Zn 213.857†	12560.7	359.27	µg/L	6.813	359.27	ppb	6.813	1.90%

Sequence No.: 42
Sample ID: 246837003|952945|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 352
Date Collected: 2/27/2010 20:06:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246837003|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	100841.0	100841.0	102	%			20:06:46
1	Al 396.153Radial†	33108.3	32636.7	17954	µg/L	17954	ppb	20:06:46
1	Ca 317.933Radial†	13755.1	13124.6	5024.2	µg/L	5024.2	ppb	20:06:46
1	Fe 238.204 Radial†	8835.0	8637.6	80427	µg/L	80427	ppb	20:06:46
1	K 766.490 Radial†	6489.0	6135.9	3659.2	µg/L	3659.2	ppb	20:06:46
1	Mg 279.077 IEC†	307.1	292.7	3437.4	µg/L	3437.4	ppb	20:07:07
1	Na 589.592 Radial†	3921.2	3598.4	1546.0	µg/L	1546.0	ppb	20:06:46
1	Sr 421.552†	9093.7	8770.5	44.517	µg/L	44.517	ppb	20:06:46
1	Sc 361.383	1608081.1	1608081.1	100.98	%			20:08:10
1	Y 371.029	1174667.0	1174667.0	105.57	%			20:08:10
1	Ag 328.068†	-408.0	-625.8	0.8672	µg/L	0.8672	ppb	20:08:15
1	As 188.979†	14.4	12.6	14.441	µg/L	14.441	ppb	20:08:36
1	B 249.677†	1844.3	488.0	-14.146	µg/L	-14.146	ppb	20:08:15
1	Ba 233.527†	10559.2	10484.0	290.21	µg/L	290.21	ppb	20:08:15
1	Be 313.107†	3654.8	5843.2	3.5077	µg/L	3.5077	ppb	20:08:15
1	Cd 226.502†	223.0	362.7	2.5793	µg/L	2.5793	ppb	20:08:36
1	Co 228.616†	813.3	791.5	38.693	µg/L	38.693	ppb	20:08:36
1	Cr 267.716†	1918.4	1820.6	51.186	µg/L	51.186	ppb	20:08:36
1	Cu 324.752†	6368.8	3645.1	43.094	µg/L	43.094	ppb	20:08:15
1	Mn 257.610†	692590.3	686402.7	2714.4	µg/L	2714.4	ppb	20:08:10
1	Mo 202.031†	48.9	43.9	8.5449	µg/L	8.5449	ppb	20:08:36
1	Ni 231.604†	2114.1	1803.8	138.01	µg/L	138.01	ppb	20:08:36
1	P 214.914†	194.1	168.9	364.98	µg/L	364.98	ppb	20:08:36
1	Pb 220.353†	204.7	161.8	58.225	µg/L	58.225	ppb	20:08:36
1	S 181.975 Axial†	42.9	28.7	119.66	µg/L	119.66	ppb	20:08:36
1	Sb 206.836†	15.9	-5.0	-6.5016	µg/L	-6.5016	ppb	20:08:36
1	Se 196.026†	-37.6	-52.3	191.31	µg/L	191.31	ppb	20:08:36
1	SiO2†	102493.3	100121.9	23463	µg/L	23463	ppb	20:08:15
1	Si 251.611†	126702.7	125112.0	10968	µg/L	10968	ppb	20:08:15
1	Sn 189.927†	15.8	7.2	-1.4102	µg/L	-1.4102	ppb	20:08:36
1	Ti 334.940†	921122.8	912130.8	2603.0	µg/L	2603.0	ppb	20:08:10
1	Tl 190.801†	-56.1	-29.3	7.2523	µg/L	7.2523	ppb	20:08:36
1	U 409.014†	-2615.7	-2704.9	-277.78	µg/L	-277.78	ppb	20:08:10
1	V 292.402†	4353.1	4477.3	63.893	µg/L	63.893	ppb	20:08:15
1	Zn 213.857†	13080.6	12424.9	355.28	µg/L	355.28	ppb	20:08:15
2	Sc RADIAL	101394.4	101394.4	103	%			20:07:12
2	Al 396.153Radial†	33502.2	32843.6	18068	µg/L	18068	ppb	20:07:12
2	Ca 317.933Radial†	13878.1	13170.9	5041.9	µg/L	5041.9	ppb	20:07:12
2	Fe 238.204 Radial†	8909.9	8663.3	80667	µg/L	80667	ppb	20:07:12
2	K 766.490 Radial†	6661.0	6268.9	3738.6	µg/L	3738.6	ppb	20:07:12
2	Mg 279.077 IEC†	306.5	290.6	3410.9	µg/L	3410.9	ppb	20:07:32
2	Na 589.592 Radial†	4007.8	3661.9	1573.3	µg/L	1573.3	ppb	20:07:12
2	Sr 421.552†	9178.1	8804.2	44.688	µg/L	44.688	ppb	20:07:12
2	Sc 361.383	1612067.1	1612067.1	101.23	%			20:08:42
2	Y 371.029	1177219.4	1177219.4	105.80	%			20:08:42
2	Ag 328.068†	-302.2	-520.3	1.8434	µg/L	1.8434	ppb	20:08:48
2	As 188.979†	9.5	7.7	4.7928	µg/L	4.7928	ppb	20:09:08
2	B 249.677†	1811.8	451.4	-16.353	µg/L	-16.353	ppb	20:08:48
2	Ba 233.527†	10429.9	10330.5	285.96	µg/L	285.96	ppb	20:08:48
2	Be 313.107†	3728.5	5907.1	3.5578	µg/L	3.5578	ppb	20:08:48
2	Cd 226.502†	217.1	356.4	2.3485	µg/L	2.3485	ppb	20:09:08
2	Co 228.616†	811.3	787.5	38.478	µg/L	38.478	ppb	20:09:08
2	Cr 267.716†	1902.8	1800.6	50.622	µg/L	50.622	ppb	20:09:08
2	Cu 324.752†	6356.1	3616.9	42.923	µg/L	42.923	ppb	20:08:48
2	Mn 257.610†	694407.7	686502.1	2714.8	µg/L	2714.8	ppb	20:08:42
2	Mo 202.031†	46.3	41.3	8.2233	µg/L	8.2233	ppb	20:09:08
2	Ni 231.604†	2099.9	1784.6	136.55	µg/L	136.55	ppb	20:09:08
2	P 214.914†	190.3	164.7	354.14	µg/L	354.14	ppb	20:09:08
2	Pb 220.353†	191.4	148.1	53.551	µg/L	53.551	ppb	20:09:08

2	S 181.975 Axial†	41.4	27.1	112.96	µg/L	112.96 ppb	20:09:08
2	Sb 206.836†	18.0	-2.9	-4.0459	µg/L	-4.0459 ppb	20:09:08
2	Se 196.026†	-34.1	-48.7	196.97	µg/L	196.97 ppb	20:09:08
2	SiO2†	101857.0	99242.4	23257	µg/L	23257 ppb	20:08:48
2	Si 251.611†	125682.6	123794.1	10852	µg/L	10852 ppb	20:08:48
2	Sn 189.927†	6.6	-1.9	-6.0236	µg/L	-6.0236 ppb	20:09:08
2	Ti 334.940†	922510.5	911246.3	2600.4	µg/L	2600.4 ppb	20:08:42
2	Tl 190.801†	-57.6	-30.6	5.6636	µg/L	5.6636 ppb	20:09:08
2	U 409.014†	-2447.0	-2531.9	-260.79	µg/L	-260.79 ppb	20:08:42
2	V 292.402†	4286.1	4400.4	62.867	µg/L	62.867 ppb	20:08:48
2	Zn 213.857†	12965.6	12279.3	351.06	µg/L	351.06 ppb	20:08:48
3	Sc RADIAL	100992.1	100992.1	102	%		20:07:38
3	Al 396.153Radial†	33367.1	32841.5	18066	µg/L	18066 ppb	20:07:38
3	Ca 317.933Radial†	13841.9	13189.4	5049.0	µg/L	5049.0 ppb	20:07:38
3	Fe 238.204 Radial†	8941.4	8728.7	81276	µg/L	81276 ppb	20:07:38
3	K 766.490 Radial†	6639.9	6274.2	3741.7	µg/L	3741.7 ppb	20:07:38
3	Mg 279.077 IEC†	308.1	293.3	3443.2	µg/L	3443.2 ppb	20:07:58
3	Na 589.592 Radial†	4011.3	3680.8	1581.4	µg/L	1581.4 ppb	20:07:38
3	Sr 421.552†	9131.4	8794.1	44.637	µg/L	44.637 ppb	20:07:38
3	Sc 361.383	1614379.1	1614379.1	101.38	%		20:09:15
3	Y 371.029	1175667.1	1175667.1	105.66	%		20:09:15
3	Ag 328.068†	-356.8	-573.7	1.3825	µg/L	1.3825 ppb	20:09:20
3	As 188.979†	5.8	4.1	-2.5506	µg/L	-2.5506 ppb	20:09:41
3	B 249.677†	1802.7	439.9	-17.335	µg/L	-17.335 ppb	20:09:20
3	Ba 233.527†	9998.5	9890.1	273.77	µg/L	273.77 ppb	20:09:20
3	Be 313.107†	3349.9	5528.3	3.2979	µg/L	3.2979 ppb	20:09:20
3	Cd 226.502†	174.4	313.9	0.9171	µg/L	0.9171 ppb	20:09:41
3	Co 228.616†	750.5	726.4	35.243	µg/L	35.243 ppb	20:09:41
3	Cr 267.716†	1699.0	1596.9	44.898	µg/L	44.898 ppb	20:09:41
3	Cu 324.752†	6128.1	3383.0	41.242	µg/L	41.242 ppb	20:09:20
3	Mn 257.610†	678471.1	669800.1	2648.9	µg/L	2648.9 ppb	20:09:15
3	Mo 202.031†	47.5	42.3	8.3797	µg/L	8.3797 ppb	20:09:41
3	Ni 231.604†	1915.4	1599.6	122.51	µg/L	122.51 ppb	20:09:41
3	P 214.914†	173.0	147.4	309.91	µg/L	309.91 ppb	20:09:41
3	Pb 220.353†	184.6	141.2	51.176	µg/L	51.176 ppb	20:09:41
3	S 181.975 Axial†	39.6	25.3	105.16	µg/L	105.16 ppb	20:09:41
3	Sb 206.836†	16.8	-4.2	-5.4221	µg/L	-5.4221 ppb	20:09:41
3	Se 196.026†	-30.4	-45.1	203.91	µg/L	203.91 ppb	20:09:41
3	SiO2†	98460.1	95747.7	22438	µg/L	22438 ppb	20:09:20
3	Si 251.611†	121428.6	119420.2	10469	µg/L	10469 ppb	20:09:20
3	Sn 189.927†	5.8	-2.7	-6.4666	µg/L	-6.4666 ppb	20:09:41
3	Ti 334.940†	894309.7	882124.3	2517.3	µg/L	2517.3 ppb	20:09:15
3	Tl 190.801†	-50.7	-23.7	13.415	µg/L	13.415 ppb	20:09:41
3	U 409.014†	-2375.5	-2457.8	-253.58	µg/L	-253.58 ppb	20:09:15
3	V 292.402†	4077.4	4188.5	59.995	µg/L	59.995 ppb	20:09:20
3	Zn 213.857†	12522.3	11823.7	337.89	µg/L	337.89 ppb	20:09:20

Mean Data: 246837003|952945|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1611509.1	101.20	%	0.200				0.20%
Sc RADIAL	101075.8	102	%	0.3				0.28%
Y 371.029	1175851.2	105.68	%	0.116				0.11%
Ag 328.068†	-573.2	1.3644	µg/L	0.48833	1.3644	ppb	0.48833	35.79%
Al 396.153Radial†	32773.9	18029	µg/L	65.4	18029	ppb	65.4	0.36%
As 188.979†	8.1	5.5610	µg/L	8.52163	5.5610	ppb	8.52163	153.24%
B 249.677†	459.8	-15.945	µg/L	1.6329	-15.945	ppb	1.6329	10.24%
Ba 233.527†	10234.9	283.31	µg/L	8.534	283.31	ppb	8.534	3.01%
Be 313.107†	5759.5	3.4545	µg/L	0.13792	3.4545	ppb	0.13792	3.99%
Ca 317.933Radial†	13161.6	5038.4	µg/L	12.77	5038.4	ppb	12.77	0.25%
Cd 226.502†	344.3	1.9483	µg/L	0.90050	1.9483	ppb	0.90050	46.22%
Co 228.616†	768.5	37.471	µg/L	1.9327	37.471	ppb	1.9327	5.16%
Cr 267.716†	1739.4	48.902	µg/L	3.4793	48.902	ppb	3.4793	7.11%
Cu 324.752†	3548.3	42.420	µg/L	1.0235	42.420	ppb	1.0235	2.41%
Fe 238.204 Radial†	8676.5	80790	µg/L	437.4	80790	ppb	437.4	0.54%
K 766.490 Radial†	6226.4	3713.2	µg/L	46.73	3713.2	ppb	46.73	1.26%
Mg 279.077 IEC†	292.2	3430.5	µg/L	17.21	3430.5	ppb	17.21	0.50%
Mn 257.610†	680901.7	2692.7	µg/L	37.93	2692.7	ppb	37.93	1.41%
Mo 202.031†	42.5	8.3826	µg/L	0.16080	8.3826	ppb	0.16080	1.92%
Na 589.592 Radial†	3647.0	1566.9	µg/L	18.55	1566.9	ppb	18.55	1.18%

Ni 231.604†	1729.3	132.36	µg/L	8.557	132.36	ppb	8.557	6.47%
P 214.914†	160.4	343.01	µg/L	29.172	343.01	ppb	29.172	8.50%
Pb 220.353†	150.4	54.318	µg/L	3.5867	54.318	ppb	3.5867	6.60%
S 181.975 Axial†	27.0	112.59	µg/L	7.258	112.59	ppb	7.258	6.45%
Sb 206.836†	-4.0	-5.3232	µg/L	1.23083	-5.3232	ppb	1.23083	23.12%
Se 196.026†	-48.7	197.40	µg/L	6.316	197.40	ppb	6.316	3.20%
SiO2†	98370.7	23052	µg/L	542.2	23052	ppb	542.2	2.35%
Si 251.611†	122775.4	10763	µg/L	261.2	10763	ppb	261.2	2.43%
Sn 189.927†	0.8	-4.6335	µg/L	2.80020	-4.6335	ppb	2.80020	60.43%
Sr 421.552†	8789.6	44.614	µg/L	0.0878	44.614	ppb	0.0878	0.20%
Ti 334.940†	901833.8	2573.6	µg/L	48.73	2573.6	ppb	48.73	1.89%
Tl 190.801†	-27.9	8.7770	µg/L	4.09448	8.7770	ppb	4.09448	46.65%
U 409.014†	-2564.9	-264.05	µg/L	12.427	-264.05	ppb	12.427	4.71%
V 292.402†	4355.4	62.251	µg/L	2.0207	62.251	ppb	2.0207	3.25%
Zn 213.857†	12176.0	348.08	µg/L	9.068	348.08	ppb	9.068	2.61%

Sequence No.: 43
Sample ID: 246837004|952945|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 353
Date Collected: 2/27/2010 20:09:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246837004|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	100820.0	100820.0	102	%			20:10:23
1	Al 396.153Radial†	76119.4	74825.9	41163	µg/L	41163	ppb	20:10:23
1	Ca 317.933Radial†	40284.6	39145.8	14985	µg/L	14985	ppb	20:10:23
1	Fe 238.204 Radial†	8177.8	7994.8	74443	µg/L	74443	ppb	20:10:44
1	K 766.490 Radial†	14688.0	14178.4	8455.4	µg/L	8455.4	ppb	20:10:23
1	Mg 279.077 IEC†	763.2	740.2	8828.9	µg/L	8828.9	ppb	20:10:44
1	Na 589.592 Radial†	1026.9	760.7	326.82	µg/L	326.82	ppb	20:10:23
1	Sr 421.552†	26037.8	25390.1	128.88	µg/L	128.88	ppb	20:10:23
1	Sc 361.383	1603935.9	1603935.9	100.72	%			20:11:47
1	Y 371.029	1136939.9	1136939.9	102.18	%			20:11:47
1	Ag 328.068†	-475.5	-693.9	0.2851	µg/L	0.2851	ppb	20:11:52
1	As 188.979†	15.1	13.3	15.428	µg/L	15.428	ppb	20:12:13
1	B 249.677†	1923.7	571.6	-6.2556	µg/L	-6.2556	ppb	20:11:52
1	Ba 233.527†	24846.0	24695.1	683.58	µg/L	683.58	ppb	20:11:52
1	Be 313.107†	5768.8	7951.3	5.1248	µg/L	5.1248	ppb	20:11:52
1	Cd 226.502†	240.4	380.6	3.7278	µg/L	3.7278	ppb	20:12:13
1	Co 228.616†	612.0	593.7	27.630	µg/L	27.630	ppb	20:12:13
1	Cr 267.716†	2322.1	2226.3	62.632	µg/L	62.632	ppb	20:12:13
1	Cu 324.752†	10494.5	7757.4	73.529	µg/L	73.529	ppb	20:11:52
1	Mn 257.610†	556342.1	552906.3	2186.7	µg/L	2186.7	ppb	20:11:47
1	Mo 202.031†	9.6	5.0	3.4567	µg/L	3.4567	ppb	20:12:13
1	Ni 231.604†	841.0	545.2	42.342	µg/L	42.342	ppb	20:12:13
1	P 214.914†	348.7	323.0	763.21	µg/L	763.21	ppb	20:12:13
1	Pb 220.353†	455.7	411.4	144.79	µg/L	144.79	ppb	20:12:13
1	S 181.975 Axial†	185.3	170.1	708.44	µg/L	708.44	ppb	20:12:13
1	Sb 206.836†	15.5	-5.4	-7.2945	µg/L	-7.2945	ppb	20:12:13
1	Se 196.026†	-33.7	-48.5	172.47	µg/L	172.47	ppb	20:12:13
1	SiO2†	174527.1	171900.2	40284	µg/L	40284	ppb	20:11:47
1	Si 251.611†	215441.0	213536.7	18719	µg/L	18719	ppb	20:11:47
1	Sn 189.927†	-25.1	-33.4	-20.664	µg/L	-20.664	ppb	20:12:13
1	Ti 334.940†	924457.4	917798.9	2618.9	µg/L	2618.9	ppb	20:11:47
1	Tl 190.801†	-50.0	-23.3	10.754	µg/L	10.754	ppb	20:12:13
1	U 409.014†	392.2	274.7	15.782	µg/L	15.782	ppb	20:11:52
1	V 292.402†	9949.6	10044.7	139.89	µg/L	139.89	ppb	20:11:52
1	Zn 213.857†	8411.5	7822.9	222.31	µg/L	222.31	ppb	20:11:52
2	Sc RADIAL	100765.7	100765.7	102	%			20:10:49
2	Al 396.153Radial†	76150.2	74896.5	41201	µg/L	41201	ppb	20:10:49
2	Ca 317.933Radial†	40343.7	39225.1	15016	µg/L	15016	ppb	20:10:49
2	Fe 238.204 Radial†	8217.0	8037.6	74840	µg/L	74840	ppb	20:11:10
2	K 766.490 Radial†	14648.7	14147.6	8437.1	µg/L	8437.1	ppb	20:10:49
2	Mg 279.077 IEC†	762.3	739.7	8822.7	µg/L	8822.7	ppb	20:11:10
2	Na 589.592 Radial†	931.8	667.9	286.95	µg/L	286.95	ppb	20:10:49
2	Sr 421.552†	26077.3	25442.6	129.14	µg/L	129.14	ppb	20:10:49
2	Sc 361.383	1620316.5	1620316.5	101.75	%			20:12:19
2	Y 371.029	1145367.8	1145367.8	102.94	%			20:12:19
2	Ag 328.068†	-453.1	-667.1	0.5433	µg/L	0.5433	ppb	20:12:24
2	As 188.979†	20.5	18.5	25.714	µg/L	25.714	ppb	20:12:45
2	B 249.677†	1937.8	566.1	-6.7738	µg/L	-6.7738	ppb	20:12:24
2	Ba 233.527†	24716.8	24318.8	673.16	µg/L	673.16	ppb	20:12:24
2	Be 313.107†	5751.4	7876.4	5.0680	µg/L	5.0680	ppb	20:12:24
2	Cd 226.502†	233.4	371.3	3.3864	µg/L	3.3864	ppb	20:12:45
2	Co 228.616†	613.0	588.5	27.345	µg/L	27.345	ppb	20:12:45
2	Cr 267.716†	2299.3	2180.6	61.346	µg/L	61.346	ppb	20:12:45
2	Cu 324.752†	10454.8	7613.0	72.496	µg/L	72.496	ppb	20:12:24
2	Mn 257.610†	562055.1	552937.0	2186.8	µg/L	2186.8	ppb	20:12:19
2	Mo 202.031†	0.7	-3.8	2.3713	µg/L	2.3713	ppb	20:12:45
2	Ni 231.604†	847.9	543.6	42.223	µg/L	42.223	ppb	20:12:45
2	P 214.914†	359.0	329.5	779.69	µg/L	779.69	ppb	20:12:45
2	Pb 220.353†	436.2	387.7	136.71	µg/L	136.71	ppb	20:12:45

2	S 181.975 Axial†	177.7	160.8	669.66	µg/L	669.66 ppb	20:12:45
2	Sb 206.836†	19.8	-1.3	-2.4974	µg/L	-2.4974 ppb	20:12:45
2	Se 196.026†	-36.6	-51.1	170.31	µg/L	170.31 ppb	20:12:45
2	SiO2†	176159.4	171752.7	40249	µg/L	40249 ppb	20:12:19
2	Si 251.611†	217395.4	213295.1	18698	µg/L	18698 ppb	20:12:19
2	Sn 189.927†	-21.5	-29.6	-18.789	µg/L	-18.789 ppb	20:12:45
2	Ti 334.940†	933059.8	916974.4	2616.5	µg/L	2616.5 ppb	20:12:19
2	Tl 190.801†	-45.4	-18.3	17.136	µg/L	17.136 ppb	20:12:45
2	U 409.014†	371.7	250.6	13.349	µg/L	13.349 ppb	20:12:24
2	V 292.402†	9850.9	9847.8	137.21	µg/L	137.21 ppb	20:12:24
2	Zn 213.857†	8373.7	7701.3	218.77	µg/L	218.77 ppb	20:12:24
3	Sc RADIAL	101184.4	101184.4	102	%		20:11:15
3	Al 396.153Radial†	76313.7	74747.0	41119	µg/L	41119 ppb	20:11:15
3	Ca 317.933Radial†	40395.9	39112.3	14973	µg/L	14973 ppb	20:11:15
3	Fe 238.204 Radial†	8189.6	7977.5	74281	µg/L	74281 ppb	20:11:35
3	K 766.490 Radial†	14608.0	14048.3	8377.9	µg/L	8377.9 ppb	20:11:15
3	Mg 279.077 IEC†	754.0	728.5	8688.5	µg/L	8688.5 ppb	20:11:35
3	Na 589.592 Radial†	986.5	717.5	308.27	µg/L	308.27 ppb	20:11:15
3	Sr 421.552†	26208.3	25464.8	129.25	µg/L	129.25 ppb	20:11:15
3	Sc 361.383	1606651.1	1606651.1	100.89	%		20:12:51
3	Y 371.029	1137945.6	1137945.6	102.27	%		20:12:51
3	Ag 328.068†	-451.8	-669.6	0.4461	µg/L	0.4461 ppb	20:12:57
3	As 188.979†	16.9	15.1	19.028	µg/L	19.028 ppb	20:13:17
3	B 249.677†	1876.4	521.5	-9.0270	µg/L	-9.0270 ppb	20:12:57
3	Ba 233.527†	23644.6	23462.7	649.46	µg/L	649.46 ppb	20:12:57
3	Be 313.107†	5367.3	7543.7	4.8395	µg/L	4.8395 ppb	20:12:57
3	Cd 226.502†	191.5	331.7	2.1884	µg/L	2.1884 ppb	20:13:17
3	Co 228.616†	576.2	557.2	25.748	µg/L	25.748 ppb	20:13:17
3	Cr 267.716†	2081.5	1984.0	55.818	µg/L	55.818 ppb	20:13:17
3	Cu 324.752†	10061.3	7310.4	70.068	µg/L	70.068 ppb	20:12:57
3	Mn 257.610†	544541.5	540276.9	2136.8	µg/L	2136.8 ppb	20:12:51
3	Mo 202.031†	2.5	-2.0	2.5698	µg/L	2.5698 ppb	20:13:17
3	Ni 231.604†	804.6	507.8	39.500	µg/L	39.500 ppb	20:13:17
3	P 214.914†	321.1	295.0	692.87	µg/L	692.87 ppb	20:13:17
3	Pb 220.353†	415.6	371.0	130.97	µg/L	130.97 ppb	20:13:17
3	S 181.975 Axial†	177.0	161.6	673.07	µg/L	673.07 ppb	20:13:17
3	Sb 206.836†	18.5	-2.4	-3.7283	µg/L	-3.7283 ppb	20:13:17
3	Se 196.026†	-32.0	-46.8	174.31	µg/L	174.31 ppb	20:13:17
3	SiO2†	170929.5	168041.7	39379	µg/L	39379 ppb	20:12:51
3	Si 251.611†	211326.3	209097.0	18330	µg/L	18330 ppb	20:12:51
3	Sn 189.927†	-19.1	-27.4	-17.662	µg/L	-17.662 ppb	20:13:17
3	Ti 334.940†	899537.6	891548.8	2544.0	µg/L	2544.0 ppb	20:12:51
3	Tl 190.801†	-46.3	-19.6	14.584	µg/L	14.584 ppb	20:13:17
3	U 409.014†	366.9	248.9	13.269	µg/L	13.269 ppb	20:12:57
3	V 292.402†	9416.1	9499.3	132.42	µg/L	132.42 ppb	20:12:57
3	Zn 213.857†	8122.6	7522.4	213.64	µg/L	213.64 ppb	20:12:57

Mean Data: 246837004|952945|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1610301.1	101.12	%	0.551				0.55%
Sc RADIAL	100923.4	102	%	0.2				0.23%
Y 371.029	1140084.4	102.47	%	0.414				0.40%
Ag 328.068†	-676.9	0.4248	µg/L	0.13040	0.4248	ppb	0.13040	30.69%
Al 396.153Radial†	74823.1	41161	µg/L	41.1	41161	ppb	41.1	0.10%
As 188.979†	15.6	20.057	µg/L	5.2196	20.057	ppb	5.2196	26.02%
B 249.677†	553.1	-7.3522	µg/L	1.47340	-7.3522	ppb	1.47340	20.04%
Ba 233.527†	24158.9	668.73	µg/L	17.483	668.73	ppb	17.483	2.61%
Be 313.107†	7790.5	5.0108	µg/L	0.15103	5.0108	ppb	0.15103	3.01%
Ca 317.933Radial†	39161.1	14991	µg/L	22.2	14991	ppb	22.2	0.15%
Cd 226.502†	361.2	3.1009	µg/L	0.80840	3.1009	ppb	0.80840	26.07%
Co 228.616†	579.8	26.908	µg/L	1.0146	26.908	ppb	1.0146	3.77%
Cr 267.716†	2130.3	59.932	µg/L	3.6199	59.932	ppb	3.6199	6.04%
Cu 324.752†	7560.3	72.031	µg/L	1.7767	72.031	ppb	1.7767	2.47%
Fe 238.204 Radial†	8003.3	74521	µg/L	287.9	74521	ppb	287.9	0.39%
K 766.490 Radial†	14124.8	8423.5	µg/L	40.53	8423.5	ppb	40.53	0.48%
Mg 279.077 IEC†	736.1	8780.0	µg/L	79.30	8780.0	ppb	79.30	0.90%
Mn 257.610†	548706.8	2170.1	µg/L	28.83	2170.1	ppb	28.83	1.33%
Mo 202.031†	-0.3	2.7993	µg/L	0.57798	2.7993	ppb	0.57798	20.65%
Na 589.592 Radial†	715.4	307.35	µg/L	19.947	307.35	ppb	19.947	6.49%

Ni 231.604†	532.2	41.355 µg/L	1.6074	41.355 ppb	1.6074	3.89%
P 214.914†	315.8	745.25 µg/L	46.112	745.25 ppb	46.112	6.19%
Pb 220.353†	390.1	137.49 µg/L	6.942	137.49 ppb	6.942	5.05%
S 181.975 Axial†	164.2	683.73 µg/L	21.472	683.73 ppb	21.472	3.14%
Sb 206.836†	-3.0	-4.5067 µg/L	2.49146	-4.5067 ppb	2.49146	55.28%
Se 196.026†	-48.8	172.36 µg/L	1.999	172.36 ppb	1.999	1.16%
SiO2†	170564.9	39971 µg/L	512.4	39971 ppb	512.4	1.28%
Si 251.611†	211976.3	18583 µg/L	218.8	18583 ppb	218.8	1.18%
Sn 189.927†	-30.1	-19.039 µg/L	1.5161	-19.039 ppb	1.5161	7.96%
Sr 421.552†	25432.5	129.09 µg/L	0.195	129.09 ppb	0.195	0.15%
Ti 334.940†	908774.0	2593.1 µg/L	42.58	2593.1 ppb	42.58	1.64%
Tl 190.801†	-20.4	14.158 µg/L	3.2122	14.158 ppb	3.2122	22.69%
U 409.014†	258.1	14.134 µg/L	1.4283	14.134 ppb	1.4283	10.11%
V 292.402†	9797.2	136.50 µg/L	3.783	136.50 ppb	3.783	2.77%
Zn 213.857†	7682.2	218.24 µg/L	4.361	218.24 ppb	4.361	2.00%

Sequence No.: 44
Sample ID: 246837005|952945|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 354
Date Collected: 2/27/2010 20:13:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246837005|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	100232.5	100232.5	101	%			20:13:59
1	Al 396.153Radial†	82314.5	81374.8	44765	µg/L	44765	ppb	20:13:59
1	Ca 317.933Radial†	29870.2	29103.8	11141	µg/L	11141	ppb	20:13:59
1	Fe 238.204 Radial†	10716.1	10545.8	98196	µg/L	98196	ppb	20:14:19
1	K 766.490 Radial†	12912.5	12511.3	7461.3	µg/L	7461.3	ppb	20:13:59
1	Mg 279.077 IEC†	726.4	708.3	8419.5	µg/L	8419.5	ppb	20:14:19
1	Na 589.592 Radial†	4025.1	3724.2	1600.1	µg/L	1600.1	ppb	20:13:59
1	Sr 421.552†	19865.9	19451.3	98.731	µg/L	98.731	ppb	20:13:59
1	Sc 361.383	1626006.6	1626006.6	102.11	%			20:15:24
1	Y 371.029	1174563.0	1174563.0	105.56	%			20:15:24
1	Ag 328.068†	-618.6	-827.6	0.5876	µg/L	0.5876	ppb	20:15:30
1	As 188.979†	24.7	22.5	31.288	µg/L	31.288	ppb	20:15:50
1	B 249.677†	2031.1	650.9	-14.082	µg/L	-14.082	ppb	20:15:30
1	Ba 233.527†	17690.4	17352.5	480.32	µg/L	480.32	ppb	20:15:30
1	Be 313.107†	4688.6	6815.7	4.3589	µg/L	4.3589	ppb	20:15:30
1	Cd 226.502†	285.1	421.1	2.4567	µg/L	2.4567	ppb	20:15:50
1	Co 228.616†	870.4	838.5	41.875	µg/L	41.875	ppb	20:15:50
1	Cr 267.716†	3717.9	3562.1	100.13	µg/L	100.13	ppb	20:15:50
1	Cu 324.752†	7095.6	4287.3	51.363	µg/L	51.363	ppb	20:15:30
1	Mn 257.610†	464507.8	455472.4	1803.4	µg/L	1803.4	ppb	20:15:24
1	Mo 202.031†	43.7	38.3	8.5147	µg/L	8.5147	ppb	20:15:50
1	Ni 231.604†	2521.4	2179.6	166.78	µg/L	166.78	ppb	20:15:50
1	P 214.914†	165.8	139.1	282.23	µg/L	282.23	ppb	20:15:50
1	Pb 220.353†	199.1	154.0	57.848	µg/L	57.848	ppb	20:15:50
1	S 181.975 Axial†	55.2	40.3	167.64	µg/L	167.64	ppb	20:15:50
1	Sb 206.836†	16.5	-4.6	-6.6905	µg/L	-6.6905	ppb	20:15:50
1	Se 196.026†	-48.5	-62.5	232.17	µg/L	232.17	ppb	20:15:50
1	SiO2†	192090.4	186748.7	43763	µg/L	43763	ppb	20:15:24
1	Si 251.611†	237320.4	232060.7	20343	µg/L	20343	ppb	20:15:24
1	Sn 189.927†	9.7	1.0	-5.0170	µg/L	-5.0170	ppb	20:15:50
1	Ti 334.940†	835323.8	818049.0	2334.2	µg/L	2334.2	ppb	20:15:24
1	Tl 190.801†	-46.0	-18.8	16.378	µg/L	16.378	ppb	20:15:50
1	U 409.014†	-2488.1	-2551.4	-265.51	µg/L	-265.51	ppb	20:15:24
1	V 292.402†	6661.0	6690.0	94.842	µg/L	94.842	ppb	20:15:30
1	Zn 213.857†	13323.1	12519.7	356.76	µg/L	356.76	ppb	20:15:30
2	Sc RADIAL	101514.0	101514.0	103	%			20:14:25
2	Al 396.153Radial†	83210.2	81222.2	44681	µg/L	44681	ppb	20:14:25
2	Ca 317.933Radial†	30221.0	29073.5	11130	µg/L	11130	ppb	20:14:25
2	Fe 238.204 Radial†	10701.9	10398.6	96824	µg/L	96824	ppb	20:14:45
2	K 766.490 Radial†	12993.5	12429.4	7412.4	µg/L	7412.4	ppb	20:14:25
2	Mg 279.077 IEC†	720.7	693.7	8245.3	µg/L	8245.3	ppb	20:14:45
2	Na 589.592 Radial†	4195.1	3839.7	1649.7	µg/L	1649.7	ppb	20:14:25
2	Sr 421.552†	20147.1	19477.8	98.865	µg/L	98.865	ppb	20:14:25
2	Sc 361.383	1634799.4	1634799.4	102.66	%			20:15:58
2	Y 371.029	1176696.7	1176696.7	105.76	%			20:15:58
2	Ag 328.068†	-584.4	-791.1	0.8162	µg/L	0.8162	ppb	20:16:04
2	As 188.979†	17.3	15.2	16.924	µg/L	16.924	ppb	20:16:24
2	B 249.677†	2051.3	659.9	-12.858	µg/L	-12.858	ppb	20:16:04
2	Ba 233.527†	17909.6	17472.9	483.65	µg/L	483.65	ppb	20:16:04
2	Be 313.107†	4730.1	6831.5	4.3797	µg/L	4.3797	ppb	20:16:04
2	Cd 226.502†	289.5	423.9	2.6955	µg/L	2.6955	ppb	20:16:24
2	Co 228.616†	864.1	827.8	41.326	µg/L	41.326	ppb	20:16:24
2	Cr 267.716†	3672.5	3498.3	98.335	µg/L	98.335	ppb	20:16:24
2	Cu 324.752†	7083.2	4237.8	50.726	µg/L	50.726	ppb	20:16:04
2	Mn 257.610†	462998.0	451555.0	1787.9	µg/L	1787.9	ppb	20:15:58
2	Mo 202.031†	38.1	32.6	7.7573	µg/L	7.7573	ppb	20:16:24
2	Ni 231.604†	2489.7	2135.5	163.41	µg/L	163.41	ppb	20:16:24
2	P 214.914†	164.4	136.9	277.54	µg/L	277.54	ppb	20:16:24
2	Pb 220.353†	182.1	136.4	51.789	µg/L	51.789	ppb	20:16:24

2	S 181.975 Axial†	55.9	40.6	169.21 µg/L	169.21 ppb	20:16:24
2	Sb 206.836†	12.1	-9.0	-11.818 µg/L	-11.818 ppb	20:16:24
2	Se 196.026†	-50.2	-64.0	225.83 µg/L	225.83 ppb	20:16:24
2	SiO2†	191151.5	184822.3	43312 µg/L	43312 ppb	20:15:58
2	Si 251.611†	236022.1	229546.0	20123 µg/L	20123 ppb	20:15:58
2	Sn 189.927†	2.7	-5.8	-8.3843 µg/L	-8.3843 ppb	20:16:24
2	Ti 334.940†	831616.2	810037.6	2311.3 µg/L	2311.3 ppb	20:15:58
2	Tl 190.801†	-53.2	-25.5	7.4795 µg/L	7.4795 ppb	20:16:24
2	U 409.014†	-2365.9	-2419.3	-252.32 µg/L	-252.32 ppb	20:15:58
2	V 292.402†	6696.6	6689.5	94.790 µg/L	94.790 ppb	20:16:04
2	Zn 213.857†	13486.2	12608.4	359.42 µg/L	359.42 ppb	20:16:04
3	Sc RADIAL	100672.3	100672.3	102 %		20:14:51
3	Al 396.153Radial†	82698.6	81397.5	44778 µg/L	44778 ppb	20:14:51
3	Ca 317.933Radial†	29919.7	29023.7	11111 µg/L	11111 ppb	20:14:51
3	Fe 238.204 Radial†	10707.6	10491.3	97688 µg/L	97688 ppb	20:15:11
3	K 766.490 Radial†	12985.1	12526.9	7470.6 µg/L	7470.6 ppb	20:14:51
3	Mg 279.077 IEC†	719.8	698.6	8303.7 µg/L	8303.7 ppb	20:15:11
3	Na 589.592 Radial†	4066.5	3747.5	1610.1 µg/L	1610.1 ppb	20:14:51
3	Sr 421.552†	20052.7	19549.2	99.228 µg/L	99.228 ppb	20:14:51
3	Sc 361.383	1618289.3	1618289.3	101.63 %		20:16:32
3	Y 371.029	1164360.5	1164360.5	104.65 %		20:16:32
3	Ag 328.068†	-503.8	-717.5	1.5205 µg/L	1.5205 ppb	20:16:37
3	As 188.979†	9.6	7.8	2.0967 µg/L	2.0967 ppb	20:16:58
3	B 249.677†	1992.3	622.1	-15.468 µg/L	-15.468 ppb	20:16:37
3	Ba 233.527†	16909.6	16666.9	461.34 µg/L	461.34 ppb	20:16:37
3	Be 313.107†	4298.2	6453.5	4.1175 µg/L	4.1175 ppb	20:16:37
3	Cd 226.502†	255.0	392.9	1.5976 µg/L	1.5976 ppb	20:16:58
3	Co 228.616†	774.3	748.0	37.030 µg/L	37.030 ppb	20:16:58
3	Cr 267.716†	3286.8	3155.2	88.694 µg/L	88.694 ppb	20:16:58
3	Cu 324.752†	6843.8	4072.6	49.621 µg/L	49.621 ppb	20:16:37
3	Mn 257.610†	446062.6	439491.6	1740.3 µg/L	1740.3 ppb	20:16:32
3	Mo 202.031†	28.4	23.5	6.6446 µg/L	6.6446 ppb	20:16:58
3	Ni 231.604†	2275.9	1949.8	149.33 µg/L	149.33 ppb	20:16:58
3	P 214.914†	150.9	125.2	247.58 µg/L	247.58 ppb	20:16:58
3	Pb 220.353†	175.0	131.3	50.055 µg/L	50.055 ppb	20:16:58
3	S 181.975 Axial†	42.6	28.2	117.26 µg/L	117.26 ppb	20:16:58
3	Sb 206.836†	15.9	-5.1	-7.2048 µg/L	-7.2048 ppb	20:16:58
3	Se 196.026†	-30.9	-45.5	253.63 µg/L	253.63 ppb	20:16:58
3	SiO2†	185488.0	181149.0	42451 µg/L	42451 ppb	20:16:32
3	Si 251.611†	229088.2	225068.6	19730 µg/L	19730 ppb	20:16:32
3	Sn 189.927†	4.3	-4.2	-7.6596 µg/L	-7.6596 ppb	20:16:58
3	Ti 334.940†	796240.5	783492.0	2235.6 µg/L	2235.6 ppb	20:16:32
3	Tl 190.801†	-46.3	-19.3	14.590 µg/L	14.590 ppb	20:16:58
3	U 409.014†	-2389.5	-2466.0	-257.03 µg/L	-257.03 ppb	20:16:32
3	V 292.402†	6239.9	6306.7	89.565 µg/L	89.565 ppb	20:16:37
3	Zn 213.857†	12767.3	12035.0	342.83 µg/L	342.83 ppb	20:16:37

Mean Data: 246837005|952945|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1626365.1	102.13	%	0.519				0.51%
Sc RADIAL	100806.3	102	%	0.7				0.65%
Y 371.029	1171873.4	105.32	%	0.593				0.56%
Ag 328.068†	-778.7	0.9748	µg/L	0.48627	0.9748	ppb	0.48627	49.89%
Al 396.153Radial†	81331.5	44741	µg/L	52.5	44741	ppb	52.5	0.12%
As 188.979†	15.2	16.769	µg/L	14.5962	16.769	ppb	14.5962	87.04%
B 249.677†	644.3	-14.136	µg/L	1.3062	-14.136	ppb	1.3062	9.24%
Ba 233.527†	17164.1	475.10	µg/L	12.036	475.10	ppb	12.036	2.53%
Be 313.107†	6700.3	4.2854	µg/L	0.14575	4.2854	ppb	0.14575	3.40%
Ca 317.933Radial†	29067.0	11127	µg/L	15.5	11127	ppb	15.5	0.14%
Cd 226.502†	412.6	2.2499	µg/L	0.57738	2.2499	ppb	0.57738	25.66%
Co 228.616†	804.8	40.077	µg/L	2.6525	40.077	ppb	2.6525	6.62%
Cr 267.716†	3405.2	95.719	µg/L	6.1499	95.719	ppb	6.1499	6.42%
Cu 324.752†	4199.2	50.570	µg/L	0.8818	50.570	ppb	0.8818	1.74%
Fe 238.204 Radial†	10478.6	97569	µg/L	693.2	97569	ppb	693.2	0.71%
K 766.490 Radial†	12489.2	7448.1	µg/L	31.24	7448.1	ppb	31.24	0.42%
Mg 279.077 IEC†	700.2	8322.8	µg/L	88.68	8322.8	ppb	88.68	1.07%
Mn 257.610†	448839.7	1777.2	µg/L	32.89	1777.2	ppb	32.89	1.85%
Mo 202.031†	31.4	7.6389	µg/L	0.94068	7.6389	ppb	0.94068	12.31%
Na 589.592 Radial†	3770.5	1619.9	µg/L	26.23	1619.9	ppb	26.23	1.62%

Ni 231.604†	2088.3	159.84 µg/L	9.260	159.84 ppb	9.260	5.79%
P 214.914†	133.7	269.12 µg/L	18.800	269.12 ppb	18.800	6.99%
Pb 220.353†	140.6	53.231 µg/L	4.0915	53.231 ppb	4.0915	7.69%
S 181.975 Axial†	36.4	151.37 µg/L	29.553	151.37 ppb	29.553	19.52%
Sb 206.836†	-6.2	-8.5713 µg/L	2.82383	-8.5713 ppb	2.82383	32.95%
Se 196.026†	-57.3	237.21 µg/L	14.566	237.21 ppb	14.566	6.14%
SiO2†	184240.0	43175 µg/L	666.7	43175 ppb	666.7	1.54%
Si 251.611†	228891.7	20065 µg/L	310.5	20065 ppb	310.5	1.55%
Sn 189.927†	-3.0	-7.0203 µg/L	1.77234	-7.0203 ppb	1.77234	25.25%
Sr 421.552†	19492.7	98.941 µg/L	0.2569	98.941 ppb	0.2569	0.26%
Ti 334.940†	803859.6	2293.7 µg/L	51.62	2293.7 ppb	51.62	2.25%
Tl 190.801†	-21.2	12.816 µg/L	4.7070	12.816 ppb	4.7070	36.73%
U 409.014†	-2478.9	-258.29 µg/L	6.685	-258.29 ppb	6.685	2.59%
V 292.402†	6562.1	93.066 µg/L	3.0315	93.066 ppb	3.0315	3.26%
Zn 213.857†	12387.7	353.00 µg/L	8.911	353.00 ppb	8.911	2.52%

Sequence No.: 45
Sample ID: 246837006|952945|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 355
Date Collected: 2/27/2010 20:17:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246837006|952945|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	103390.6	103390.6	105	%			20:17:40
1	Al 396.153Radial†	109334.7	104735.4	57616	µg/L	57616	ppb	20:17:40
1	Ca 317.933Radial†	45565.5	43213.9	16543	µg/L	16543	ppb	20:17:40
1	Fe 238.204 Radial†	9264.2	8834.4	82260	µg/L	82260	ppb	20:18:00
1	K 766.490 Radial†	17402.1	16415.8	9789.8	µg/L	9789.8	ppb	20:17:40
1	Mg 279.077 IEC†	959.9	909.7	10861	µg/L	10861	ppb	20:18:00
1	Na 589.592 Radial†	1583.6	1268.0	544.77	µg/L	544.77	ppb	20:17:40
1	Sr 421.552†	31345.0	29830.7	151.41	µg/L	151.41	ppb	20:17:40
1	Sc 361.383	1621296.6	1621296.6	101.81	%			20:19:05
1	Y 371.029	1163993.2	1163993.2	104.61	%			20:19:05
1	Ag 328.068†	-269.7	-486.7	2.7971	µg/L	2.7971	ppb	20:19:11
1	As 188.979†	20.1	18.2	23.881	µg/L	23.881	ppb	20:19:31
1	B 249.677†	1978.4	604.9	-8.4545	µg/L	-8.4545	ppb	20:19:11
1	Ba 233.527†	27228.1	26770.7	741.01	µg/L	741.01	ppb	20:19:11
1	Be 313.107†	8233.2	10310.5	7.1318	µg/L	7.1318	ppb	20:19:11
1	Cd 226.502†	276.3	413.3	3.8912	µg/L	3.8912	ppb	20:19:31
1	Co 228.616†	1020.0	987.9	50.647	µg/L	50.647	ppb	20:19:31
1	Cr 267.716†	2006.4	1891.6	53.229	µg/L	53.229	ppb	20:19:31
1	Cu 324.752†	14669.5	11746.4	105.61	µg/L	105.61	ppb	20:19:11
1	Mn 257.610†	613187.9	602824.8	2384.1	µg/L	2384.1	ppb	20:19:05
1	Mo 202.031†	10.2	5.5	3.8139	µg/L	3.8139	ppb	20:19:31
1	Ni 231.604†	937.5	631.1	48.938	µg/L	48.938	ppb	20:19:31
1	P 214.914†	319.1	290.1	675.23	µg/L	675.23	ppb	20:19:31
1	Pb 220.353†	515.2	465.0	164.58	µg/L	164.58	ppb	20:19:31
1	S 181.975 Axial†	140.1	123.8	515.71	µg/L	515.71	ppb	20:19:31
1	Sb 206.836†	19.5	-1.6	-2.6956	µg/L	-2.6956	ppb	20:19:31
1	Se 196.026†	-41.3	-55.7	187.03	µg/L	187.03	ppb	20:19:31
1	SiO2†	202599.9	197617.4	46310	µg/L	46310	ppb	20:19:05
1	Si 251.611†	250243.5	245428.7	21515	µg/L	21515	ppb	20:19:05
1	Sn 189.927†	-14.5	-22.7	-15.507	µg/L	-15.507	ppb	20:19:31
1	Ti 334.940†	756260.6	742771.2	2119.2	µg/L	2119.2	ppb	20:19:05
1	Tl 190.801†	-48.7	-21.5	10.552	µg/L	10.552	ppb	20:19:31
1	U 409.014†	-1190.8	-1284.3	-138.88	µg/L	-138.88	ppb	20:19:05
1	V 292.402†	10248.5	10232.5	142.56	µg/L	142.56	ppb	20:19:11
1	Zn 213.857†	8540.5	7860.1	222.82	µg/L	222.82	ppb	20:19:11
2	Sc RADIAL	102332.4	102332.4	103	%			20:18:06
2	Al 396.153Radial†	109186.3	105673.2	58132	µg/L	58132	ppb	20:18:06
2	Ca 317.933Radial†	45277.7	43386.4	16609	µg/L	16609	ppb	20:18:06
2	Fe 238.204 Radial†	9301.6	8962.1	83449	µg/L	83449	ppb	20:18:26
2	K 766.490 Radial†	17294.1	16483.6	9830.2	µg/L	9830.2	ppb	20:18:06
2	Mg 279.077 IEC†	961.0	920.2	10986	µg/L	10986	ppb	20:18:26
2	Na 589.592 Radial†	1643.1	1341.1	576.20	µg/L	576.20	ppb	20:18:06
2	Sr 421.552†	31233.6	30033.1	152.44	µg/L	152.44	ppb	20:18:06
2	Sc 361.383	1619806.8	1619806.8	101.72	%			20:19:39
2	Y 371.029	1162736.0	1162736.0	104.50	%			20:19:39
2	Ag 328.068†	-333.8	-550.0	2.3057	µg/L	2.3057	ppb	20:19:44
2	As 188.979†	23.3	21.3	29.934	µg/L	29.934	ppb	20:20:05
2	B 249.677†	1998.0	625.9	-7.8822	µg/L	-7.8822	ppb	20:19:44
2	Ba 233.527†	27064.3	26634.3	737.24	µg/L	737.24	ppb	20:19:44
2	Be 313.107†	8227.4	10312.2	7.1329	µg/L	7.1329	ppb	20:19:44
2	Cd 226.502†	269.6	407.0	3.5546	µg/L	3.5546	ppb	20:20:05
2	Co 228.616†	1010.4	979.4	50.173	µg/L	50.173	ppb	20:20:05
2	Cr 267.716†	1998.5	1885.7	53.062	µg/L	53.062	ppb	20:20:05
2	Cu 324.752†	14614.9	11705.9	105.53	µg/L	105.53	ppb	20:19:44
2	Mn 257.610†	612386.9	602591.2	2383.2	µg/L	2383.2	ppb	20:19:39
2	Mo 202.031†	9.4	4.7	3.7601	µg/L	3.7601	ppb	20:20:05
2	Ni 231.604†	936.9	631.3	48.976	µg/L	48.976	ppb	20:20:05
2	P 214.914†	318.5	289.8	673.72	µg/L	673.72	ppb	20:20:05
2	Pb 220.353†	497.6	448.2	158.91	µg/L	158.91	ppb	20:20:05

2	S 181.975 Axial†	145.5	129.2	538.08 µg/L	538.08 ppb	20:20:05
2	Sb 206.836†	21.7	0.6	-0.1797 µg/L	-0.1797 ppb	20:20:05
2	Se 196.026†	-36.2	-50.6	197.64 µg/L	197.64 ppb	20:20:05
2	SiO2†	202492.5	197694.8	46328 µg/L	46328 ppb	20:19:39
2	Si 251.611†	250264.1	245675.0	21537 µg/L	21537 ppb	20:19:39
2	Sn 189.927†	-8.6	-16.9	-12.670 µg/L	-12.670 ppb	20:20:05
2	Ti 334.940†	755840.4	743041.3	2120.0 µg/L	2120.0 ppb	20:19:39
2	Tl 190.801†	-43.3	-16.3	17.285 µg/L	17.285 ppb	20:20:05
2	U 409.014†	-1339.4	-1431.5	-153.54 µg/L	-153.54 ppb	20:19:39
2	V 292.402†	10185.9	10180.2	141.87 µg/L	141.87 ppb	20:19:44
2	Zn 213.857†	8507.3	7835.3	222.04 µg/L	222.04 ppb	20:19:44
3	Sc RADIAL	101970.5	101970.5	103 %		20:18:32
3	Al 396.153Radial†	108964.1	105832.2	58219 µg/L	58219 ppb	20:18:32
3	Ca 317.933Radial†	45149.1	43417.0	16620 µg/L	16620 ppb	20:18:32
3	Fe 238.204 Radial†	9309.9	9002.0	83821 µg/L	83821 ppb	20:18:52
3	K 766.490 Radial†	17262.9	16512.7	9847.5 µg/L	9847.5 ppb	20:18:32
3	Mg 279.077 IEC†	952.6	915.4	10928 µg/L	10928 ppb	20:18:52
3	Na 589.592 Radial†	1645.0	1348.7	579.43 µg/L	579.43 ppb	20:18:32
3	Sr 421.552†	31221.5	30128.5	152.93 µg/L	152.93 ppb	20:18:32
3	Sc 361.383	1621020.3	1621020.3	101.80 %		20:20:13
3	Y 371.029	1160579.2	1160579.2	104.31 %		20:20:13
3	Ag 328.068†	-183.2	-401.8	3.6256 µg/L	3.6256 ppb	20:20:18
3	As 188.979†	24.7	22.6	32.483 µg/L	32.483 ppb	20:20:39
3	B 249.677†	1931.0	558.7	-11.909 µg/L	-11.909 ppb	20:20:18
3	Ba 233.527†	25609.2	25184.9	697.12 µg/L	697.12 ppb	20:20:18
3	Be 313.107†	7565.1	9655.6	6.6590 µg/L	6.6590 ppb	20:20:18
3	Cd 226.502†	234.6	372.3	2.4081 µg/L	2.4081 ppb	20:20:39
3	Co 228.616†	916.2	886.2	45.148 µg/L	45.148 ppb	20:20:39
3	Cr 267.716†	1769.8	1659.5	46.704 µg/L	46.704 ppb	20:20:39
3	Cu 324.752†	13980.9	11072.4	100.73 µg/L	100.73 ppb	20:20:18
3	Mn 257.610†	589131.5	579295.7	2291.3 µg/L	2291.3 ppb	20:20:13
3	Mo 202.031†	9.2	4.6	3.7553 µg/L	3.7553 ppb	20:20:39
3	Ni 231.604†	888.5	583.1	45.322 µg/L	45.322 ppb	20:20:39
3	P 214.914†	287.4	259.1	596.17 µg/L	596.17 ppb	20:20:39
3	Pb 220.353†	463.5	414.4	147.35 µg/L	147.35 ppb	20:20:39
3	S 181.975 Axial†	138.8	122.6	510.32 µg/L	510.32 ppb	20:20:39
3	Sb 206.836†	22.6	1.5	0.9755 µg/L	0.9755 ppb	20:20:39
3	Se 196.026†	-41.1	-55.4	192.42 µg/L	192.42 ppb	20:20:39
3	SiO2†	197427.6	192570.3	45127 µg/L	45127 ppb	20:20:13
3	Si 251.611†	244044.8	239381.3	20985 µg/L	20985 ppb	20:20:13
3	Sn 189.927†	-4.6	-12.9	-10.694 µg/L	-10.694 ppb	20:20:39
3	Ti 334.940†	726645.4	713805.3	2036.6 µg/L	2036.6 ppb	20:20:13
3	Tl 190.801†	-39.1	-12.2	21.459 µg/L	21.459 ppb	20:20:39
3	U 409.014†	-1172.6	-1266.6	-137.36 µg/L	-137.36 ppb	20:20:13
3	V 292.402†	9476.7	9476.1	132.28 µg/L	132.28 ppb	20:20:18
3	Zn 213.857†	8130.8	7459.1	211.15 µg/L	211.15 ppb	20:20:18

Mean Data: 246837006|952945|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1620707.9	101.78	%	0.050				0.05%
Sc RADIAL	102564.5	104	%	0.7				0.72%
Y 371.029	1162436.1	104.47	%	0.155				0.15%
Ag 328.068†	-479.5	2.9095	µg/L	0.66708	2.9095	ppb	0.66708	22.93%
Al 396.153Radial†	105413.6	57989	µg/L	326.0	57989	ppb	326.0	0.56%
As 188.979†	20.7	28.766	µg/L	4.4184	28.766	ppb	4.4184	15.36%
B 249.677†	596.5	-9.4151	µg/L	2.17830	-9.4151	ppb	2.17830	23.14%
Ba 233.527†	26196.6	725.12	µg/L	24.328	725.12	ppb	24.328	3.36%
Be 313.107†	10092.8	6.9745	µg/L	0.27329	6.9745	ppb	0.27329	3.92%
Ca 317.933Radial†	43339.1	16591	µg/L	41.9	16591	ppb	41.9	0.25%
Cd 226.502†	397.5	3.2846	µg/L	0.77756	3.2846	ppb	0.77756	23.67%
Co 228.616†	951.2	48.656	µg/L	3.0475	48.656	ppb	3.0475	6.26%
Cr 267.716†	1812.3	50.998	µg/L	3.7201	50.998	ppb	3.7201	7.29%
Cu 324.752†	11508.3	103.96	µg/L	2.792	103.96	ppb	2.792	2.69%
Fe 238.204 Radial†	8932.9	83177	µg/L	815.3	83177	ppb	815.3	0.98%
K 766.490 Radial†	16470.7	9822.5	µg/L	29.63	9822.5	ppb	29.63	0.30%
Mg 279.077 IEC†	915.1	10925	µg/L	62.9	10925	ppb	62.9	0.58%
Mn 257.610†	594903.9	2352.8	µg/L	53.33	2352.8	ppb	53.33	2.27%
Mo 202.031†	4.9	3.7764	µg/L	0.03254	3.7764	ppb	0.03254	0.86%
Na 589.592 Radial†	1319.3	566.80	µg/L	19.150	566.80	ppb	19.150	3.38%

Ni 231.604†	615.2	47.745	µg/L	2.0990	47.745	ppb	2.0990	4.40%
P 214.914†	279.7	648.38	µg/L	45.218	648.38	ppb	45.218	6.97%
Pb 220.353†	442.6	156.94	µg/L	8.781	156.94	ppb	8.781	5.60%
S 181.975 Axial†	125.2	521.37	µg/L	14.720	521.37	ppb	14.720	2.82%
Sb 206.836†	0.2	-0.6333	µg/L	1.87713	-0.6333	ppb	1.87713	296.40%
Se 196.026†	-53.9	192.36	µg/L	5.308	192.36	ppb	5.308	2.76%
SiO2†	195960.8	45922	µg/L	688.2	45922	ppb	688.2	1.50%
Si 251.611†	243495.0	21346	µg/L	312.5	21346	ppb	312.5	1.46%
Sn 189.927†	-17.5	-12.957	µg/L	2.4195	-12.957	ppb	2.4195	18.67%
Sr 421.552†	29997.4	152.26	µg/L	0.772	152.26	ppb	0.772	0.51%
Ti 334.940†	733205.9	2091.9	µg/L	47.95	2091.9	ppb	47.95	2.29%
Tl 190.801†	-16.7	16.432	µg/L	5.5033	16.432	ppb	5.5033	33.49%
U 409.014†	-1327.5	-143.26	µg/L	8.936	-143.26	ppb	8.936	6.24%
V 292.402†	9962.9	138.90	µg/L	5.743	138.90	ppb	5.743	4.13%
Zn 213.857†	7718.2	218.67	µg/L	6.524	218.67	ppb	6.524	2.98%

Sequence No.: 48 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 2/27/2010 20:28:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	101464.6	101464.6	103	%			20:28:44
1	Al 396.153Radial†	9696.4	9622.2	5282.2	µg/L	5282.2	ppb	20:28:44
1	Ca 317.933Radial†	14428.6	13698.0	5243.7	µg/L	5243.7	ppb	20:29:04
1	Fe 238.204 Radial†	606.7	565.8	5279.4	µg/L	5279.4	ppb	20:29:04
1	K 766.490 Radial†	8926.2	8471.9	5052.3	µg/L	5052.3	ppb	20:28:44
1	Mg 279.077 IEC†	463.2	443.1	5336.1	µg/L	5336.1	ppb	20:29:04
1	Na 589.592 Radial†	24572.8	23699.9	10182	µg/L	10182	ppb	20:28:44
1	Sr 421.552†	100518.0	97809.3	496.46	µg/L	496.46	ppb	20:28:44
1	Sc 361.383	1613502.0	1613502.0	101.32	%			20:30:08
1	Y 371.029	1126849.5	1126849.5	101.28	%			20:30:08
1	Ag 328.068†	56768.9	55804.9	513.99	µg/L	513.99	ppb	20:30:13
1	As 188.979†	275.8	270.6	535.10	µg/L	535.10	ppb	20:30:34
1	B 249.677†	10050.5	8580.9	485.84	µg/L	485.84	ppb	20:30:13
1	Ba 233.527†	19047.8	18826.5	521.89	µg/L	521.89	ppb	20:30:13
1	Be 313.107†	676397.3	669778.1	515.56	µg/L	515.56	ppb	20:30:08
1	Cd 226.502†	16508.6	16434.7	522.39	µg/L	522.39	ppb	20:30:13
1	Co 228.616†	9554.0	9415.2	524.26	µg/L	524.26	ppb	20:30:13
1	Cr 267.716†	19133.2	18804.1	528.60	µg/L	528.60	ppb	20:30:13
1	Cu 324.752†	71076.2	67485.2	518.91	µg/L	518.91	ppb	20:30:13
1	Mn 257.610†	134435.3	133240.9	525.98	µg/L	525.98	ppb	20:30:08
1	Mo 202.031†	4362.5	4300.9	537.96	µg/L	537.96	ppb	20:30:34
1	Ni 231.604†	7651.9	7262.2	551.07	µg/L	551.07	ppb	20:30:13
1	P 214.914†	1087.7	1050.2	2611.6	µg/L	2611.6	ppb	20:30:34
1	Pb 220.353†	1630.0	1567.8	536.32	µg/L	536.32	ppb	20:30:34
1	S 181.975 Axial†	274.3	257.0	1070.0	µg/L	1070.0	ppb	20:30:34
1	Sb 206.836†	473.5	446.6	531.04	µg/L	531.04	ppb	20:30:34
1	Se 196.026†	417.1	396.6	549.52	µg/L	549.52	ppb	20:30:34
1	SiO2†	25653.8	23946.0	5611.6	µg/L	5611.6	ppb	20:30:13
1	Si 251.611†	30712.6	29955.3	2626.0	µg/L	2626.0	ppb	20:30:13
1	Sn 189.927†	1094.6	1071.8	541.39	µg/L	541.39	ppb	20:30:34
1	Ti 334.940†	182705.7	180303.3	514.24	µg/L	514.24	ppb	20:30:08
1	Tl 190.801†	392.1	413.2	525.11	µg/L	525.11	ppb	20:30:34
1	U 409.014†	5354.2	5169.5	507.88	µg/L	507.88	ppb	20:30:13
1	V 292.402†	38778.2	38437.9	530.27	µg/L	530.27	ppb	20:30:13
1	Zn 213.857†	18892.6	18117.5	521.04	µg/L	521.04	ppb	20:30:13
2	Sc RADIAL	101154.2	101154.2	102	%			20:29:10
2	Al 396.153Radial†	9656.5	9612.2	5277.0	µg/L	5277.0	ppb	20:29:10
2	Ca 317.933Radial†	14283.4	13599.3	5205.9	µg/L	5205.9	ppb	20:29:30
2	Fe 238.204 Radial†	601.0	562.0	5243.9	µg/L	5243.9	ppb	20:29:30
2	K 766.490 Radial†	8943.6	8515.6	5078.4	µg/L	5078.4	ppb	20:29:10
2	Mg 279.077 IEC†	460.4	441.8	5320.2	µg/L	5320.2	ppb	20:29:30
2	Na 589.592 Radial†	24649.1	23847.9	10246	µg/L	10246	ppb	20:29:10
2	Sr 421.552†	100520.2	98111.9	498.00	µg/L	498.00	ppb	20:29:10
2	Sc 361.383	1626078.3	1626078.3	102.11	%			20:30:41
2	Y 371.029	1134196.1	1134196.1	101.94	%			20:30:41
2	Ag 328.068†	56813.8	55415.6	510.40	µg/L	510.40	ppb	20:30:46
2	As 188.979†	269.7	262.4	519.01	µg/L	519.01	ppb	20:31:07
2	B 249.677†	10157.1	8608.5	487.42	µg/L	487.42	ppb	20:30:46
2	Ba 233.527†	19094.7	18727.0	519.13	µg/L	519.13	ppb	20:30:46
2	Be 313.107†	675404.7	663643.1	510.84	µg/L	510.84	ppb	20:30:41
2	Cd 226.502†	16554.6	16353.7	519.81	µg/L	519.81	ppb	20:30:46
2	Co 228.616†	9606.6	9393.7	523.06	µg/L	523.06	ppb	20:30:46
2	Cr 267.716†	19099.2	18624.7	523.56	µg/L	523.56	ppb	20:30:46
2	Cu 324.752†	71240.1	67103.3	515.97	µg/L	515.97	ppb	20:30:46
2	Mn 257.610†	135287.3	133049.0	525.23	µg/L	525.23	ppb	20:30:41
2	Mo 202.031†	4275.3	4182.2	523.11	µg/L	523.11	ppb	20:31:07
2	Ni 231.604†	7669.9	7221.4	547.97	µg/L	547.97	ppb	20:30:46
2	P 214.914†	1071.0	1025.6	2549.2	µg/L	2549.2	ppb	20:31:07
2	Pb 220.353†	1600.9	1526.8	522.28	µg/L	522.28	ppb	20:31:07

2	S 181.975 Axial†	267.7	248.3	1034.1 µg/L	1034.1 ppb	20:31:07
2	Sb 206.836†	467.4	437.0	519.45 µg/L	519.45 ppb	20:31:07
2	Se 196.026†	408.4	384.8	533.53 µg/L	533.53 ppb	20:31:07
2	SiO2†	25949.4	24039.6	5633.5 µg/L	5633.5 ppb	20:30:46
2	Si 251.611†	31116.2	30116.2	2640.1 µg/L	2640.1 ppb	20:30:46
2	Sn 189.927†	1069.7	1039.1	524.86 µg/L	524.86 ppb	20:31:07
2	Ti 334.940†	183069.4	179264.8	511.27 µg/L	511.27 ppb	20:30:41
2	Tl 190.801†	392.3	410.4	521.56 µg/L	521.56 ppb	20:31:07
2	U 409.014†	5396.6	5170.1	507.95 µg/L	507.95 ppb	20:30:46
2	V 292.402†	38785.2	38148.7	526.20 µg/L	526.20 ppb	20:30:46
2	Zn 213.857†	19001.8	18080.2	519.98 µg/L	519.98 ppb	20:30:46
3	Sc RADIAL	101329.5	101329.5	102 %		20:29:35
3	Al 396.153Radial†	9646.2	9585.8	5264.3 µg/L	5264.3 ppb	20:29:35
3	Ca 317.933Radial†	14371.9	13661.5	5229.7 µg/L	5229.7 ppb	20:29:56
3	Fe 238.204 Radial†	604.8	564.7	5268.3 µg/L	5268.3 ppb	20:29:56
3	K 766.490 Radial†	8982.6	8538.6	5092.1 µg/L	5092.1 ppb	20:29:35
3	Mg 279.077 IEC†	464.6	445.1	5358.6 µg/L	5358.6 ppb	20:29:56
3	Na 589.592 Radial†	24559.3	23718.6	10190 µg/L	10190 ppb	20:29:35
3	Sr 421.552†	100559.2	97980.0	497.33 µg/L	497.33 ppb	20:29:35
3	Sc 361.383	1618527.5	1618527.5	101.64 %		20:31:14
3	Y 371.029	1127238.6	1127238.6	101.31 %		20:31:14
3	Ag 328.068†	52531.0	51461.5	473.84 µg/L	473.84 ppb	20:31:20
3	As 188.979†	235.6	230.2	455.07 µg/L	455.07 ppb	20:31:40
3	B 249.677†	9333.2	7844.3	443.86 µg/L	443.86 ppb	20:31:20
3	Ba 233.527†	17184.0	16934.4	469.41 µg/L	469.41 ppb	20:31:20
3	Be 313.107†	625121.3	617256.9	475.13 µg/L	475.13 ppb	20:31:14
3	Cd 226.502†	14720.8	14625.1	464.80 µg/L	464.80 ppb	20:31:20
3	Co 228.616†	8460.5	8310.0	462.64 µg/L	462.64 ppb	20:31:20
3	Cr 267.716†	16436.0	16091.7	452.36 µg/L	452.36 ppb	20:31:20
3	Cu 324.752†	63599.5	59911.4	460.78 µg/L	460.78 ppb	20:31:20
3	Mn 257.610†	127474.5	125980.4	497.32 µg/L	497.32 ppb	20:31:14
3	Mo 202.031†	3538.5	3476.9	434.92 µg/L	434.92 ppb	20:31:40
3	Ni 231.604†	6795.6	6396.2	485.36 µg/L	485.36 ppb	20:31:20
3	P 214.914†	917.0	879.0	2182.2 µg/L	2182.2 ppb	20:31:40
3	Pb 220.353†	1384.0	1320.7	451.76 µg/L	451.76 ppb	20:31:40
3	S 181.975 Axial†	235.4	217.8	906.90 µg/L	906.90 ppb	20:31:40
3	Sb 206.836†	395.1	368.0	437.20 µg/L	437.20 ppb	20:31:40
3	Se 196.026†	355.7	334.9	466.07 µg/L	466.07 ppb	20:31:40
3	SiO2†	24061.1	22300.4	5225.9 µg/L	5225.9 ppb	20:31:20
3	Si 251.611†	28697.6	27878.8	2444.0 µg/L	2444.0 ppb	20:31:20
3	Sn 189.927†	872.1	849.5	429.20 µg/L	429.20 ppb	20:31:40
3	Ti 334.940†	170282.4	167520.5	477.75 µg/L	477.75 ppb	20:31:14
3	Tl 190.801†	346.8	367.5	467.32 µg/L	467.32 ppb	20:31:40
3	U 409.014†	4767.1	4575.4	449.40 µg/L	449.40 ppb	20:31:20
3	V 292.402†	33889.0	33508.7	462.02 µg/L	462.02 ppb	20:31:20
3	Zn 213.857†	16918.1	16116.9	463.46 µg/L	463.46 ppb	20:31:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1619369.3	101.69	%	0.398				0.39%
Sc RADIAL	101316.1	102	%	0.2				0.15%
Y 371.029	1129428.1	101.51	%	0.372				0.37%
Ag 328.068†	54227.3	499.41	µg/L	22.217	499.41	ppb	22.217	4.45%
QC value within limits for Ag 328.068 Recovery = 99.88%								
Al 396.153Radial†	9606.7	5274.5	µg/L	9.21	5274.5	ppb	9.21	0.17%
QC value within limits for Al 396.153Radial Recovery = 105.49%								
As 188.979†	254.4	503.06	µg/L	42.330	503.06	ppb	42.330	8.41%
QC value within limits for As 188.979 Recovery = 100.61%								
B 249.677†	8344.6	472.37	µg/L	24.708	472.37	ppb	24.708	5.23%
QC value within limits for B 249.677 Recovery = 94.47%								
Ba 233.527†	18162.6	503.48	µg/L	29.533	503.48	ppb	29.533	5.87%
QC value within limits for Ba 233.527 Recovery = 100.70%								
Be 313.107†	650226.0	500.51	µg/L	22.105	500.51	ppb	22.105	4.42%
QC value within limits for Be 313.107 Recovery = 100.10%								
Ca 317.933Radial†	13652.9	5226.5	µg/L	19.11	5226.5	ppb	19.11	0.37%
QC value within limits for Ca 317.933Radial Recovery = 104.53%								
Cd 226.502†	15804.5	502.33	µg/L	32.531	502.33	ppb	32.531	6.48%
QC value within limits for Cd 226.502 Recovery = 100.47%								
Co 228.616†	9039.6	503.32	µg/L	35.236	503.32	ppb	35.236	7.00%

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   QC value within limits for Co 228.616  Recovery = 100.66%
Cr 267.716†            17840.1      501.50 µg/L        42.637      501.50 ppb         42.637   8.50%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†            64833.3      498.55 µg/L        32.744      498.55 ppb         32.744   6.57%
   QC value within limits for Cu 324.752  Recovery = 99.71%
Fe 238.204 Radial†       564.2      5263.9 µg/L         18.20      5263.9 ppb          18.20   0.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.28%
K 766.490 Radial†       8508.7      5074.3 µg/L         20.19      5074.3 ppb          20.19   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 101.49%
Mg 279.077 IEC†          443.3      5338.3 µg/L         19.32      5338.3 ppb          19.32   0.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.77%
Mn 257.610†           130756.8      516.18 µg/L        16.336      516.18 ppb         16.336   3.16%
   QC value within limits for Mn 257.610  Recovery = 103.24%
Mo 202.031†             3986.7      498.66 µg/L        55.698      498.66 ppb         55.698  11.17%
   QC value within limits for Mo 202.031  Recovery = 99.73%
Na 589.592 Radial†     23755.4       10206 µg/L          34.6       10206 ppb           34.6   0.34%
   QC value within limits for Na 589.592 Radial  Recovery = 102.06%
Ni 231.604†             6959.9      528.13 µg/L        37.072      528.13 ppb         37.072   7.02%
   QC value within limits for Ni 231.604  Recovery = 105.63%
P 214.914†               984.9      2447.7 µg/L        232.03      2447.7 ppb         232.03   9.48%
   QC value within limits for P 214.914  Recovery = 97.91%
Pb 220.353†             1471.8      503.45 µg/L        45.315      503.45 ppb         45.315   9.00%
   QC value within limits for Pb 220.353  Recovery = 100.69%
S 181.975 Axial†         241.0      1003.6 µg/L         85.68      1003.6 ppb          85.68   8.54%
   QC value within limits for S 181.975 Axial  Recovery = 100.36%
Sb 206.836†              417.2      495.90 µg/L        51.163      495.90 ppb         51.163  10.32%
   QC value within limits for Sb 206.836  Recovery = 99.18%
Se 196.026†              372.1      516.38 µg/L        44.290      516.38 ppb         44.290   8.58%
   QC value within limits for Se 196.026  Recovery = 103.28%
SiO2†                  23428.7      5490.3 µg/L        229.24      5490.3 ppb         229.24   4.18%
   QC value within limits for SiO2  Recovery = 102.67%
Si 251.611†            29316.8      2570.0 µg/L        109.40      2570.0 ppb         109.40   4.26%
   QC value within limits for Si 251.611  Recovery = 102.80%
Sn 189.927†              986.8      498.48 µg/L        60.571      498.48 ppb         60.571  12.15%
   QC value within limits for Sn 189.927  Recovery = 99.70%
Sr 421.552†            97967.1      497.26 µg/L         0.770      497.26 ppb          0.770   0.15%
   QC value within limits for Sr 421.552  Recovery = 99.45%
Ti 334.940†           175696.2      501.09 µg/L        20.263      501.09 ppb         20.263   4.04%
   QC value within limits for Ti 334.940  Recovery = 100.22%
Tl 190.801†              397.0      504.66 µg/L        32.388      504.66 ppb         32.388   6.42%
   QC value within limits for Tl 190.801  Recovery = 100.93%
U 409.014†              4971.7      488.41 µg/L        33.784      488.41 ppb         33.784   6.92%
   QC value within limits for U 409.014  Recovery = 97.68%
V 292.402†             36698.4      506.16 µg/L        38.284      506.16 ppb         38.284   7.56%
   QC value within limits for V 292.402  Recovery = 101.23%
Zn 213.857†            17438.2      501.49 µg/L        32.938      501.49 ppb         32.938   6.57%
   QC value within limits for Zn 213.857  Recovery = 100.30%
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/27/2010 20:31:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	100073.7	100073.7	101	%			20:32:24
1	Al 396.153Radial†	-160.2	14.7	8.0306	µg/L	8.0306	ppb	20:32:24
1	Ca 317.933Radial†	364.4	-2.7	-1.0369	µg/L	-1.0369	ppb	20:32:45
1	Fe 238.204 Radial†	27.0	1.3	11.702	µg/L	11.702	ppb	20:32:45
1	K 766.490 Radial†	223.9	-5.5	-3.2612	µg/L	-3.2612	ppb	20:32:24
1	Mg 279.077 IEC†	12.9	4.4	53.383	µg/L	53.383	ppb	20:32:45
1	Na 589.592 Radial†	200.9	-48.0	-20.613	µg/L	-20.613	ppb	20:32:24
1	Sr 421.552†	167.9	19.8	0.1007	µg/L	0.1007	ppb	20:32:24
1	Sc 361.383	1608213.1	1608213.1	100.99	%			20:33:46
1	Y 371.029	1125791.7	1125791.7	101.18	%			20:33:46
1	Ag 328.068†	274.2	49.7	0.4619	µg/L	0.4619	ppb	20:33:52
1	As 188.979†	-1.6	-3.3	-6.4737	µg/L	-6.4737	ppb	20:34:13
1	B 249.677†	972.0	-375.8	-21.367	µg/L	-21.367	ppb	20:33:52
1	Ba 233.527†	-13.0	14.8	0.4119	µg/L	0.4119	ppb	20:34:13
1	Be 313.107†	-1778.6	462.9	0.3562	µg/L	0.3562	ppb	20:33:52
1	Cd 226.502†	-130.3	12.9	0.4085	µg/L	0.4085	ppb	20:34:13
1	Co 228.616†	21.2	7.0	0.3925	µg/L	0.3925	ppb	20:34:13
1	Cr 267.716†	104.4	24.3	0.6842	µg/L	0.6842	ppb	20:34:13
1	Cu 324.752†	2647.4	-40.3	-0.3073	µg/L	-0.3073	ppb	20:33:52
1	Mn 257.610†	-381.2	185.6	0.7300	µg/L	0.7300	ppb	20:34:13
1	Mo 202.031†	15.9	11.3	1.4075	µg/L	1.4075	ppb	20:34:13
1	Ni 231.604†	300.5	7.9	0.5964	µg/L	0.5964	ppb	20:34:13
1	P 214.914†	20.3	-3.1	-7.8212	µg/L	-7.8212	ppb	20:34:13
1	Pb 220.353†	51.2	9.7	3.3252	µg/L	3.3252	ppb	20:34:13
1	S 181.975 Axial†	14.7	0.7	2.9927	µg/L	2.9927	ppb	20:34:13
1	Sb 206.836†	21.5	0.5	0.6359	µg/L	0.6359	ppb	20:34:13
1	Se 196.026†	19.0	3.7	5.0064	µg/L	5.0064	ppb	20:34:13
1	SiO2†	1409.8	23.6	5.5228	µg/L	5.5228	ppb	20:33:52
1	Si 251.611†	430.6	70.6	6.1932	µg/L	6.1932	ppb	20:34:13
1	Sn 189.927†	12.4	3.8	1.9224	µg/L	1.9224	ppb	20:34:13
1	Ti 334.940†	224.3	208.3	0.5903	µg/L	0.5903	ppb	20:33:52
1	Tl 190.801†	-26.7	-0.2	-0.2492	µg/L	-0.2492	ppb	20:34:13
1	U 409.014†	111.7	-4.1	-0.4046	µg/L	-0.4046	ppb	20:33:52
1	V 292.402†	-95.7	71.8	0.9922	µg/L	0.9922	ppb	20:33:52
1	Zn 213.857†	549.0	15.5	0.4431	µg/L	0.4431	ppb	20:34:13
2	Sc RADIAL	99922.1	99922.1	101	%			20:32:50
2	Al 396.153Radial†	-167.3	7.3	3.9801	µg/L	3.9801	ppb	20:32:50
2	Ca 317.933Radial†	355.6	-10.8	-4.1398	µg/L	-4.1398	ppb	20:33:11
2	Fe 238.204 Radial†	29.0	3.2	30.185	µg/L	30.185	ppb	20:33:11
2	K 766.490 Radial†	248.9	19.6	11.675	µg/L	11.675	ppb	20:32:50
2	Mg 279.077 IEC†	9.1	0.6	7.6634	µg/L	7.6634	ppb	20:33:11
2	Na 589.592 Radial†	151.1	-97.0	-41.661	µg/L	-41.661	ppb	20:32:50
2	Sr 421.552†	158.2	10.5	0.0533	µg/L	0.0533	ppb	20:32:50
2	Sc 361.383	1606186.9	1606186.9	100.87	%			20:34:18
2	Y 371.029	1123027.7	1123027.7	100.93	%			20:34:18
2	Ag 328.068†	254.5	30.6	0.2941	µg/L	0.2941	ppb	20:34:24
2	As 188.979†	3.8	2.1	4.1230	µg/L	4.1230	ppb	20:34:44
2	B 249.677†	1007.2	-339.7	-19.319	µg/L	-19.319	ppb	20:34:24
2	Ba 233.527†	38.7	66.1	1.8328	µg/L	1.8328	ppb	20:34:44
2	Be 313.107†	-674.4	1555.4	1.1971	µg/L	1.1971	ppb	20:34:24
2	Cd 226.502†	-89.0	53.7	1.7041	µg/L	1.7041	ppb	20:34:44
2	Co 228.616†	49.0	34.7	1.9340	µg/L	1.9340	ppb	20:34:44
2	Cr 267.716†	168.5	88.0	2.4736	µg/L	2.4736	ppb	20:34:44
2	Cu 324.752†	2761.8	76.4	0.5917	µg/L	0.5917	ppb	20:34:24
2	Mn 257.610†	-29.6	533.8	2.1086	µg/L	2.1086	ppb	20:34:44
2	Mo 202.031†	29.1	24.3	3.0431	µg/L	3.0431	ppb	20:34:44
2	Ni 231.604†	309.8	17.5	1.3243	µg/L	1.3243	ppb	20:34:44
2	P 214.914†	25.8	2.4	5.9782	µg/L	5.9782	ppb	20:34:44
2	Pb 220.353†	49.5	8.2	2.8006	µg/L	2.8006	ppb	20:34:44

2	S 181.975 Axial†	16.5	2.5	10.473 µg/L	10.473 ppb	20:34:44
2	Sb 206.836†	21.6	0.7	0.8494 µg/L	0.8494 ppb	20:34:44
2	Se 196.026†	20.6	5.4	7.3541 µg/L	7.3541 ppb	20:34:44
2	SiO2†	1437.5	52.8	12.365 µg/L	12.365 ppb	20:34:24
2	Si 251.611†	516.3	156.1	13.685 µg/L	13.685 ppb	20:34:44
2	Sn 189.927†	11.3	2.8	1.4052 µg/L	1.4052 ppb	20:34:44
2	Ti 334.940†	563.6	545.0	1.5546 µg/L	1.5546 ppb	20:34:24
2	Tl 190.801†	-28.8	-2.3	-2.9084 µg/L	-2.9084 ppb	20:34:44
2	U 409.014†	111.1	-4.6	-0.4541 µg/L	-0.4541 ppb	20:34:24
2	V 292.402†	-30.4	136.5	1.8914 µg/L	1.8914 ppb	20:34:24
2	Zn 213.857†	586.3	53.1	1.5289 µg/L	1.5289 ppb	20:34:44
3	Sc RADIAL	100029.9	100029.9	101 %		20:33:16
3	Al 396.153Radial†	-205.3	-30.0	-16.591 µg/L	-16.591 ppb	20:33:16
3	Ca 317.933Radial†	360.4	-6.4	-2.4689 µg/L	-2.4689 ppb	20:33:36
3	Fe 238.204 Radial†	30.6	4.8	44.615 µg/L	44.615 ppb	20:33:36
3	K 766.490 Radial†	222.7	-6.6	-3.9109 µg/L	-3.9109 ppb	20:33:16
3	Mg 279.077 IEC†	8.0	-0.4	-5.1492 µg/L	-5.1492 ppb	20:33:36
3	Na 589.592 Radial†	182.0	-66.6	-28.600 µg/L	-28.600 ppb	20:33:16
3	Sr 421.552†	143.7	-4.0	-0.0205 µg/L	-0.0205 ppb	20:33:16
3	Sc 361.383	1615767.3	1615767.3	101.47 %		20:34:50
3	Y 371.029	1129235.1	1129235.1	101.49 %		20:34:50
3	Ag 328.068†	461.5	233.1	2.1572 µg/L	2.1572 ppb	20:34:55
3	As 188.979†	2.8	1.1	2.2299 µg/L	2.2299 ppb	20:35:16
3	B 249.677†	1002.1	-350.7	-19.950 µg/L	-19.950 ppb	20:34:55
3	Ba 233.527†	95.5	121.9	3.3783 µg/L	3.3783 ppb	20:35:16
3	Be 313.107†	1838.9	4036.3	3.1068 µg/L	3.1068 ppb	20:34:55
3	Cd 226.502†	-41.6	100.9	3.2060 µg/L	3.2060 ppb	20:35:16
3	Co 228.616†	74.3	59.3	3.3008 µg/L	3.3008 ppb	20:35:16
3	Cr 267.716†	207.7	125.6	3.5321 µg/L	3.5321 ppb	20:35:16
3	Cu 324.752†	3004.8	299.6	2.3080 µg/L	2.3080 ppb	20:34:55
3	Mn 257.610†	383.0	940.6	3.7163 µg/L	3.7163 ppb	20:35:16
3	Mo 202.031†	36.4	31.3	3.9203 µg/L	3.9203 ppb	20:35:16
3	Ni 231.604†	339.6	45.0	3.4169 µg/L	3.4169 ppb	20:35:16
3	P 214.914†	27.9	4.3	10.656 µg/L	10.656 ppb	20:35:16
3	Pb 220.353†	47.5	5.9	2.0198 µg/L	2.0198 ppb	20:35:16
3	S 181.975 Axial†	20.3	6.2	25.899 µg/L	25.899 ppb	20:35:16
3	Sb 206.836†	30.7	9.5	11.313 µg/L	11.313 ppb	20:35:16
3	Se 196.026†	19.7	4.3	5.9382 µg/L	5.9382 ppb	20:35:16
3	SiO2†	1546.2	151.4	35.488 µg/L	35.488 ppb	20:34:55
3	Si 251.611†	629.5	264.7	23.206 µg/L	23.206 ppb	20:35:16
3	Sn 189.927†	13.3	4.7	2.3753 µg/L	2.3753 ppb	20:35:16
3	Ti 334.940†	1271.6	1239.5	3.5377 µg/L	3.5377 ppb	20:34:55
3	Tl 190.801†	-24.0	2.6	3.3262 µg/L	3.3262 ppb	20:35:16
3	U 409.014†	110.5	-5.8	-0.5819 µg/L	-0.5819 ppb	20:34:55
3	V 292.402†	92.0	257.3	3.5485 µg/L	3.5485 ppb	20:34:55
3	Zn 213.857†	638.3	100.9	2.9029 µg/L	2.9029 ppb	20:35:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1610055.8	101.11	%	0.317				0.31%
Sc RADIAL	100008.6	101	%	0.1				0.08%
Y 371.029	1126018.2	101.20	%	0.280				0.28%
Ag 328.068†	104.5	0.9710	µg/L	1.03063	0.9710	ppb	1.03063	106.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.7	-1.5266	µg/L	13.20202	-1.5266	ppb	13.20202	864.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0403	µg/L	5.65136	-0.0403	ppb	5.65136	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-355.4	-20.212	µg/L	1.0488	-20.212	ppb	1.0488	5.19%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	67.6	1.8743	µg/L	1.48368	1.8743	ppb	1.48368	79.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	2018.2	1.5534	µg/L	1.40947	1.5534	ppb	1.40947	90.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.7	-2.5485	µg/L	1.55301	-2.5485	ppb	1.55301	60.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	55.8	1.7729	µg/L	1.40000	1.7729	ppb	1.40000	78.97%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	33.7	1.8758	µg/L	1.45502	1.8758	ppb	1.45502	77.57%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 79.3      2.2300 µg/L       1.43948      2.2300 ppb        1.43948  64.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                111.9      0.8641 µg/L       1.32877      0.8641 ppb        1.32877 153.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†           3.1      28.834 µg/L       16.4977      28.834 ppb        16.4977  57.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†            2.5      1.5010 µg/L       8.81693      1.5010 ppb        8.81693 587.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†              1.5      18.632 µg/L       30.7691      18.632 ppb        30.7691 165.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                553.3      2.1850 µg/L       1.49465      2.1850 ppb        1.49465  68.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 22.3      2.7903 µg/L       1.27534      2.7903 ppb        1.27534  45.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -70.5     -30.291 µg/L       10.6251     -30.291 ppb        10.6251  35.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 23.4      1.7792 µg/L       1.46427      1.7792 ppb        1.46427  82.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                   1.2      2.9378 µg/L       9.60661      2.9378 ppb        9.60661 327.00%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                  7.9      2.7152 µg/L       0.65688      2.7152 ppb        0.65688  24.19%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†             3.2      13.122 µg/L       11.6804      13.122 ppb        11.6804  89.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                  3.6      4.2662 µg/L       6.10404      4.2662 ppb        6.10404 143.08%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                  4.5      6.0996 µg/L       1.18212      6.0996 ppb        1.18212  19.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       75.9      17.792 µg/L       15.7024      17.792 ppb        15.7024  88.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                163.8      14.361 µg/L        8.5263      14.361 ppb         8.5263  59.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                  3.8      1.9010 µg/L       0.48539      1.9010 ppb        0.48539  25.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                  8.8      0.0445 µg/L       0.06110      0.0445 ppb        0.06110 137.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                664.3      1.8942 µg/L       1.50277      1.8942 ppb        1.50277  79.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                  0.0      0.0562 µg/L       3.12850      0.0562 ppb        3.12850 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  -4.8     -0.4802 µg/L       0.09146     -0.4802 ppb        0.09146  19.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 155.2      2.1441 µg/L       1.29674      2.1441 ppb        1.29674  60.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 56.5      1.6250 µg/L       1.23274      1.6250 ppb        1.23274  75.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, March 10, 2010 17:15:15
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.7423
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	194.8	194.801	9.285	4.8
	Mg	24.0	2029.9	2029.944	58.581	2.9
	Co	58.9	10709.6	10709.614	228.970	2.1
	Rh	102.9	30032.5	30032.539	359.520	1.2
	In	114.9	40203.1	40203.100	585.033	1.5
	Pb	208.0	27419.7	27419.707	795.880	2.9
⌈>	Ba	137.9	31285.0	31285.014	654.282	2.1
⌊	Ba++	69.0	815.6	0.026	0.000	0.9
⌈>	Ce	139.9	41582.1	41582.062	1086.189	2.6
⌊	CeO	155.9	999.3	0.024	0.001	3.2
	Bkgd	220.0	0.6	0.600	0.224	37.3

Current Optimization File Data

Current Value	Description
1.08	Nebulizer Gas Flow
10.00	Lens Voltage
1450.00	ICP RF Power
-1855.00	Analog Stage Voltage
1350.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	6.8	323.3
Co	59	21	8.3	11308.1
In	115	21	9.5	48288.1

ICPMS#3 Instrument Tuning Report

File Name: 100310.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.1	595	2060	0.629
Be	9.0	9.0	2069	2040	0.621
Mg	24.0	24.0	5720	2110	0.638
Mg	25.0	25.0	5898	2020	0.646
Mg	26.0	26.1	6237	2140	0.646
Co	58.9	58.9	14201	2115	0.639
Rh	102.9	102.9	24912	2165	0.671
In	114.9	114.9	27832	2180	0.645
Ce	139.9	139.9	33913	2220	0.626
Pb	206.0	205.9	50004	2280	0.705
Pb	207.0	207.0	50272	2310	0.676
Pb	208.0	208.0	50486	2300	0.642
U	238.1	238.1	57852	2340	0.668

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, March 10, 2010 20:08:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\Blank.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		139060	
⌊	Ni	60		ug/L		15	
⌈>	Lu	175		ug/L		90766	
⌊	U	238		ug/L		276	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45					
⌊	Ni	60					
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, March 10, 2010 20:11:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\Standard 1.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		139689	139689.165
⌊	Ni	60	10.000	ug/L	1.698	2107	0.015
⌈>	Lu	175		ug/L		91060	91059.881
⌊	U	238	10.000	ug/L	1.499	59331	0.648

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45					
⌊	Ni	60					
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, March 10, 2010 20:13:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\Standard 2.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		139067	139067.019
⌊	Ni	60	**99.973**	ug/L	2.457	20283	0.146
⌈>	Lu	175		ug/L		91138	91137.761
⌊	U	238	**100.004**	ug/L	1.143	593693	6.510

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45					
⌊	Ni	60					
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, March 10, 2010 20:15:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 1.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		142831	142830.765
	Ni	60	53.284	ug/L	4.500	11100	0.078
>	Lu	175		ug/L		93731	93730.502
	U	238	54.397	ug/L	0.359	332209	3.541

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45			102.7		
⌊	Ni	60	106.568				
⌈>	Lu	175			103.3		
⌊	U	238	108.795				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, March 10, 2010 20:17:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 2.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		138293	138292.822
⌊	Ni	60	0.001	ug/L	5041.559	15	0.000
⌈>	Lu	175		ug/L		89591	89590.965
⌊	U	238	-0.001	ug/L	56.863	263	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		99.4			
⌊	Ni	60					
⌈>	Lu	175		98.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, March 10, 2010 20:20:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 3.064

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		139120	139120.308
⌊	Ni	60	**2.293**	**ug/L**	1.946	480	0.003
⌈>	Lu	175		**ug/L**		91423	91422.563
⌊	U	238	**0.238**	**ug/L**	1.976	1696	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45			100.0		
⌊	Ni	60	114.660				
⌈>	Lu	175			100.7		
⌊	U	238	119.111				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, March 10, 2010 20:22:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 4.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		113743	113743.267
⌊	Ni	60	**3.469**	ug/L	5.344	588	0.005
⌈>	Lu	175		ug/L		72741	72741.152
⌊	U	238	**-0.034**	ug/L	2.144	58	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		81.8			
⌊	Ni	60	104.801				
⌈>	Lu	175		80.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, March 10, 2010 20:24:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 5.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		109966	109965.792
⌊	Ni	60	**23.042**	ug/L	1.869	3707	0.034
⌈>	Lu	175		ug/L		73022	73022.340
⌊	U	238	**23.692**	ug/L	1.132	112824	1.542

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45			79.1		
⌊	Ni	60	98.851				
⌈>	Lu	175			80.5		
⌊	U	238	118.462				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, March 10, 2010 20:27:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 6.067

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		138040	138039.826
⌊	Ni	60	**49.637**	**ug/L**	3.819	10002	0.072
⌈>	Lu	175		**ug/L**		90471	90471.431
⌊	U	238	**48.765**	**ug/L**	2.106	287332	3.175

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45			99.3		
⌊	Ni	60	99.275				
⌈>	Lu	175			99.7		
⌊	U	238	97.530				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, March 10, 2010 20:29:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 7.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		142995	142994.537
⌊	Ni	60	-0.004	ug/L	428.206	15	-0.000
⌈>	Lu	175		ug/L		88100	88100.152
⌊	U	238	-0.017	ug/L	8.261	172	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		102.8			
⌊	Ni	60					
⌈>	Lu	175		97.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202042560
Sample Date/Time: Wednesday, March 10, 2010 20:31:40
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 963319|2|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\1202042560.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		148055	148054.603
⌊	Ni	60	-0.028	ug/L	63.885	10	-0.000
⌈>	Lu	175		ug/L		90052	90051.838
⌊	U	238	-0.035	ug/L	8.330	65	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		106.5			
⌊	Ni	60					
⌈>	Lu	175		99.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202042565
Sample Date/Time: Wednesday, March 10, 2010 20:33:57
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 963319|40|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\1202042565.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		145323	145322.635
⌊	Ni	60	**38.874**	ug/L	3.127	8250	0.057
⌈>	Lu	175		ug/L		89710	89710.048
⌊	U	238	**0.470**	ug/L	1.455	3020	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		104.5			
⌊	Ni	60					
⌈>	Lu	175		98.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 246837001
Sample Date/Time: Wednesday, March 10, 2010 20:36:15
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963319|2|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\246837001.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		151662	151661.663
⌊	Ni	60	80.739	ug/L	3.631	17866	0.118
⌈>	Lu	175		ug/L		93623	93623.473
⌊	U	238	2.611	ug/L	1.733	16198	0.170

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		109.1			
⌊	Ni	60					
⌈>	Lu	175		103.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202042561
Sample Date/Time: Wednesday, March 10, 2010 20:38:33
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 963319|2|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\1202042561.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		148780	148780.212
⌊	Ni	60	98.152	ug/L	1.898	21306	0.143
⌈>	Lu	175		ug/L		95025	95025.329
⌊	U	238	2.951	ug/L	3.484	18547	0.192

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		107.0			
⌊	Ni	60					
⌈>	Lu	175		104.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202042563
Sample Date/Time: Wednesday, March 10, 2010 20:46:54
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 963319|2|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\1202042563.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		152276	152275.799
⌊	Ni	60	119.895	ug/L	3.041	26632	0.175
⌈>	Lu	175		ug/L		97753	97753.158
⌊	U	238	28.520	ug/L	1.049	181763	1.857

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		109.5			
⌊	Ni	60					
⌈>	Lu	175		107.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202042564
Sample Date/Time: Wednesday, March 10, 2010 20:49:14
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 963319|2|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\1202042564.075

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		152303	152302.867
⌊	Ni	60	**109.728**	**ug/L**	1.230	24383	0.160
⌈>	Lu	175		**ug/L**		97284	97284.136
⌊	U	238	**26.565**	**ug/L**	2.914	168540	1.729

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45			109.5		
⌊	Ni	60					
⌈>	Lu	175			107.2		
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202042562
Sample Date/Time: Wednesday, March 10, 2010 20:51:34
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 963319|10|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\1202042562.076

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		148092	148091.835
⌊	Ni	60	**16.943**	**ug/L**	3.106	3674	0.025
⌈>	Lu	175		**ug/L**		93703	93702.609
⌊	U	238	**0.490**	**ug/L**	2.303	3276	0.032

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		106.5			
⌊	Ni	60					
⌈>	Lu	175		103.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, March 10, 2010 20:53:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 6.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		143578	143577.669
⌊	Ni	60	**50.816**	ug/L	3.766	10652	0.074
⌈>	Lu	175		ug/L		92170	92169.525
⌊	U	238	**49.600**	ug/L	1.304	297820	3.229

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		103.2			
⌊	Ni	60	101.631				
⌈>	Lu	175		101.5			
⌊	U	238	99.199				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, March 10, 2010 20:56:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 7.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		145398	145397.631
⌊	Ni	60	0.039	ug/L	37.097	24	0.000
⌈>	Lu	175		ug/L		90652	90652.356
⌊	U	238	-0.016	ug/L	12.648	180	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		104.6			
⌊	Ni	60					
⌈>	Lu	175		99.9			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 246837002
Sample Date/Time: Wednesday, March 10, 2010 20:58:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963319|2|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\246837002.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		150643	150642.691
⌊	Ni	60	12.207	ug/L	3.921	2697	0.018
⌈>	Lu	175		ug/L		94124	94123.864
⌊	U	238	10.585	ug/L	1.272	65131	0.689

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		108.3			
⌊	Ni	60					
⌈>	Lu	175		103.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 246837003
Sample Date/Time: Wednesday, March 10, 2010 21:00:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963319|2|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\246837003.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		146341	146340.879
⌊	Ni	60	54.594	ug/L	2.782	11665	0.080
⌈>	Lu	175		ug/L		94082	94081.574
⌊	U	238	7.133	ug/L	4.091	43936	0.464

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		105.2			
⌊	Ni	60					
⌈>	Lu	175		103.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 246837004
Sample Date/Time: Wednesday, March 10, 2010 21:03:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963319|2|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\246837004.081

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		150575	150574.938
⌊	Ni	60	**18.669**	**ug/L**	0.560	4115	0.027
⌈>	Lu	175		**ug/L**		92420	92419.787
⌊	U	238	**48.767**	**ug/L**	1.483	293614	3.175

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		108.3			
⌊	Ni	60					
⌈>	Lu	175		101.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 246837005
Sample Date/Time: Wednesday, March 10, 2010 21:05:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963319|2|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\246837005.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		149188	149187.832
⌊	Ni	60	56.459	ug/L	2.600	12298	0.082
⌈>	Lu	175		ug/L		93585	93584.973
⌊	U	238	4.139	ug/L	1.068	25498	0.269

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		107.3			
⌊	Ni	60					
⌈>	Lu	175		103.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 246837006
Sample Date/Time: Wednesday, March 10, 2010 21:07:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963319|2|prb
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\246837006.083

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		147840	147839.866
⌊	Ni	60	**22.561**	**ug/L**	1.061	4879	0.033
⌈>	Lu	175		**ug/L**		91658	91658.082
⌊	U	238	**37.915**	**ug/L**	2.110	226573	2.468

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45			106.3		
⌊	Ni	60					
⌈>	Lu	175			101.0		
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, March 10, 2010 21:17:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 6.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		144981	144981.438
⌊	Ni	60	**51.176**	ug/L	3.734	10831	0.075
⌈>	Lu	175		ug/L		92255	92255.356
⌊	U	238	**50.508**	ug/L	0.138	303633	3.288

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		104.3			
⌊	Ni	60	102.351				
⌈>	Lu	175		101.6			
⌊	U	238	101.017				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, March 10, 2010 21:19:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc2.mth
Dataset File: C:\elandata\Dataset\100310\QC Std 7.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		149840	149839.945
⌊	Ni	60	-0.013	ug/L	107.088	14	-0.000
⌈>	Lu	175		ug/L		90713	90712.676
⌊	U	238	-0.020	ug/L	12.120	160	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		107.8			
⌊	Ni	60					
⌈>	Lu	175		99.9			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, March 08, 2010 11:28:02
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.670
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4399.7	4399.678	80.781	1.8
	Mg	24.0	50755.8	50755.825	834.700	1.6
	Co	58.9	83647.2	83647.187	660.491	0.8
	Rh	102.9	155274.6	155274.620	2121.147	1.4
	In	114.9	220900.6	220900.623	1020.022	0.5
	Pb	208.0	215097.1	215097.102	1540.121	0.7
⌈>	Ba	137.9	212179.6	212179.608	1114.205	0.5
⌊	Ba++	69.0	3022.0	0.014	0.000	1.6
⌈>	Ce	139.9	253431.7	253431.714	2018.820	0.8
⌊	CeO	155.9	6327.2	0.025	0.000	1.7
	Bkgd	220.0	28.5	28.500	3.984	14.0

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.50	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.5	4958.2
Co	59	17	6.0	83503.0
In	115	17	6.8	208584.4

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	588	2050	0.652
Be	9.0	9.0	2052	2075	0.612
Mg	24.0	24.0	5695	2080	0.639
Mg	25.0	25.0	5935	2080	0.607
Mg	26.0	26.0	6180	2080	0.622
Co	58.9	58.9	14189	2110	0.610
Rh	102.9	102.9	24878	2160	0.619
In	114.9	114.9	27793	2180	0.627
Ce	139.9	139.9	33876	2200	0.625
Pb	206.0	206.0	49948	2295	0.595
Pb	207.0	207.0	50171	2240	0.626
Pb	208.0	208.0	50451	2265	0.689
U	238.1	238.1	57733	2275	0.709

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, March 08, 2010 15:19:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\Blank.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		19	
>	Sc	45		ug/L		912128	
	Ni	60		ug/L		88	
>	Ge	74		ug/L		339529	
	As	75		ug/L		-234	
	Se	77		ug/L		5156	
	Se	82		ug/L		14	
	Kr	83		ug/L		103	
>	Lu	175		ug/L		416432	
	Tl	205		ug/L		781	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, March 08, 2010 15:22:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\Standard 1.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	2.326	3888	0.004
>	Sc	45		**ug/L**		881485	881485.480
	Ni	60	**10.000**	**ug/L**	1.632	11651	0.013
>	Ge	74		**ug/L**		334018	334017.593
	As	75	**10.000**	**ug/L**	3.080	8555	0.026
	Se	77		**ug/L**		5358	0.001
	Se	82	**10.000**	**ug/L**	5.847	923	0.003
	Kr	83		**ug/L**		103	0.000
>	Lu	175		**ug/L**		409012	409012.122
	Tl	205	**10.000**	**ug/L**	1.581	171633	0.418

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, March 08, 2010 15:26:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\Standard 2.090

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.981**	**ug/L**	4.441	37968	0.043
>	Sc	45		**ug/L**		882211	882210.541
	Ni	60	**99.998**	**ug/L**	2.734	115549	0.131
>	Ge	74		**ug/L**		328052	328052.245
	As	75	**100.019**	**ug/L**	3.887	87597	0.268
	Se	77		**ug/L**		11949	0.021
	Se	82	**100.047**	**ug/L**	4.958	9370	0.029
	Kr	83		**ug/L**		113	0.000
>	Lu	175		**ug/L**		397505	397505.244
	Tl	205	**99.898**	**ug/L**	4.706	1503911	3.786

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, March 08, 2010 15:29:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 1.091

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.573**	**ug/L**	1.874	20222	0.022
>	Sc	45		**ug/L**		909598	909598.109
	Ni	60	**52.177**	**ug/L**	0.677	62244	0.068
>	Ge	74		**ug/L**		340594	340594.328
	As	75	**48.939**	**ug/L**	0.314	44450	0.131
	Se	77		**ug/L**		8815	0.011
	Se	82	**49.820**	**ug/L**	2.964	4861	0.014
	Kr	83		**ug/L**		116	0.000
>	Lu	175		**ug/L**		403481	403480.785
	Tl	205	**52.869**	**ug/L**	1.122	809229	2.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.146				
>	Sc	45		99.7			
	Ni	60	104.354				
>	Ge	74		100.3			
	As	75	97.878				
	Se	77					
	Se	82	99.639				
	Kr	83					
>	Lu	175		96.9			
	Tl	205	105.737				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, March 08, 2010 15:33:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 2.092

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.002**	**ug/L**	368.343	18	-0.000
>	Sc	45		**ug/L**		926974	926974.454
	Ni	60	**0.003**	**ug/L**	182.616	92	0.000
>	Ge	74		**ug/L**		346773	346772.595
	As	75	**0.023**	**ug/L**	1256.218	-217	0.000
	Se	77		**ug/L**		5605	0.001
	Se	82	**0.034**	**ug/L**	372.754	18	0.000
	Kr	83		**ug/L**		100	-0.000
>	Lu	175		**ug/L**		414859	414858.779
	Tl	205	**0.087**	**ug/L**	3.869	2150	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.6			
	Ni	60					
>	Ge	74		102.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, March 08, 2010 15:37:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 3.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.566**	**ug/L**	11.015	240	0.000
>	Sc	45		**ug/L**		905898	905898.236
	Ni	60	**2.308**	**ug/L**	3.360	2825	0.003
>	Ge	74		**ug/L**		337679	337678.634
	As	75	**5.803**	**ug/L**	2.256	5021	0.016
	Se	77		**ug/L**		5380	0.001
	Se	82	**5.367**	**ug/L**	4.569	532	0.002
	Kr	83		**ug/L**		95	-0.000
>	Lu	175		**ug/L**		407947	407946.630
	Tl	205	**1.210**	**ug/L**	1.494	19471	0.046

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	113.240				
>	Sc	45		99.3			
	Ni	60	115.408				
>	Ge	74		99.5			
	As	75	116.068				
	Se	77					
	Se	82	107.332				
	Kr	83					
>	Lu	175		98.0			
	Tl	205	120.968				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, March 08, 2010 15:40:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 4.094

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.096**	**ug/L**	18.079	55	0.000
>	Sc	45		**ug/L**		884968	884967.660
	Ni	60	**3.100**	**ug/L**	1.417	3678	0.004
>	Ge	74		**ug/L**		326125	326124.603
	As	75	**0.384**	**ug/L**	97.368	110	0.001
	Se	77		**ug/L**		6396	0.004
	Se	82	**-1.332**	**ug/L**	13.314	-110	-0.000
	Kr	83		**ug/L**		260	0.000
>	Lu	175		**ug/L**		368921	368921.327
	Tl	205	**0.007**	**ug/L**	24.329	794	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Ti	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.0			
	Ni	60	93.656				
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		88.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, March 08, 2010 15:44:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 5.095

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.684**	**ug/L**	2.491	7188	0.008
>	Sc	45		**ug/L**		890976	890975.564
	Ni	60	**21.657**	**ug/L**	2.001	25355	0.028
>	Ge	74		**ug/L**		323567	323566.566
	As	75	**20.262**	**ug/L**	3.745	17353	0.054
	Se	77		**ug/L**		7329	0.007
	Se	82	**18.671**	**ug/L**	2.502	1739	0.005
	Kr	83		**ug/L**		231	0.000
>	Lu	175		**ug/L**		371656	371655.576
	Tl	205	**20.697**	**ug/L**	0.798	292244	0.784

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	93.420				
>	Sc	45		97.7			
	Ni	60	92.907				
>	Ge	74		95.3			
	As	75	101.310				
	Se	77					
	Se	82	93.354				
	Kr	83					
>	Lu	175		89.2			
	Tl	205	103.486				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, March 08, 2010 15:47:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 6.096

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.305**	**ug/L**	1.619	19754	0.021
>	Sc	45		**ug/L**		929318	929318.055
	Ni	60	**51.383**	**ug/L**	1.607	62624	0.067
>	Ge	74		**ug/L**		345052	345052.360
	As	75	**48.564**	**ug/L**	2.038	44684	0.130
	Se	77		**ug/L**		8909	0.011
	Se	82	**50.372**	**ug/L**	1.954	4979	0.014
	Kr	83		**ug/L**		101	-0.000
>	Lu	175		**ug/L**		403810	403809.816
	Tl	205	**52.152**	**ug/L**	1.225	798918	1.977

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.610				
>	Sc	45		101.9			
	Ni	60	102.767				
>	Ge	74		101.6			
	As	75	97.129				
	Se	77					
	Se	82	100.744				
	Kr	83					
>	Lu	175		97.0			
	Tl	205	104.303				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, March 08, 2010 15:51:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 7.097

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.012**	**ug/L**	45.447	24	0.000
>	Sc	45		**ug/L**		939989	939989.431
	Ni	60	**0.009**	**ug/L**	31.100	102	0.000
>	Ge	74		**ug/L**		344985	344985.022
	As	75	**-0.322**	**ug/L**	74.293	-535	-0.001
	Se	77		**ug/L**		6202	0.003
	Se	82	**-0.033**	**ug/L**	576.556	11	-0.000
	Kr	83		**ug/L**		98	-0.000
>	Lu	175		**ug/L**		409602	409602.265
	Tl	205	**0.086**	**ug/L**	1.911	2099	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.1			
	Ni	60					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, March 08, 2010 16:20:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 6.105

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.596**	**ug/L**	1.998	20089	0.023
>	Sc	45		**ug/L**		886092	886091.775
	Ni	60	**51.512**	**ug/L**	1.484	59874	0.067
>	Ge	74		**ug/L**		333311	333311.470
	As	75	**48.921**	**ug/L**	3.164	43469	0.131
	Se	77		**ug/L**		8259	0.010
	Se	82	**49.962**	**ug/L**	3.328	4769	0.014
	Kr	83		**ug/L**		92	-0.000
>	Lu	175		**ug/L**		405763	405763.198
	Tl	205	**52.098**	**ug/L**	0.750	801988	1.975

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.192				
>	Sc	45		97.1			
	Ni	60	103.024				
>	Ge	74		98.2			
	As	75	97.841				
	Se	77					
	Se	82	99.923				
	Kr	83					
>	Lu	175		97.4			
	Tl	205	104.195				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, March 08, 2010 16:24:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 7.106

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.003**	**ug/L**	232.659	18	-0.000
>	Sc	45		**ug/L**		897717	897717.139
	Ni	60	**0.003**	**ug/L**	281.455	90	0.000
>	Ge	74		**ug/L**		334792	334792.216
	As	75	**0.163**	**ug/L**	172.121	-85	0.000
	Se	77		**ug/L**		5357	0.001
	Se	82	**0.353**	**ug/L**	12.314	48	0.000
	Kr	83		**ug/L**		80	-0.000
>	Lu	175		**ug/L**		422111	422110.886
	Tl	205	**0.120**	**ug/L**	4.503	2710	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.4			
	Ni	60					
>	Ge	74		98.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, March 08, 2010 16:42:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 6.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**53.130**	**ug/L**	1.419	19773	0.023
| >	Sc	45		**ug/L**		863353	863353.497
⌊	Ni	60	**51.481**	**ug/L**	1.894	58296	0.067
⌈>	Ge	74		**ug/L**		325453	325452.507
|	As	75	**48.319**	**ug/L**	1.461	41930	0.130
|	Se	77		**ug/L**		7648	0.008
|	Se	82	**48.986**	**ug/L**	2.724	4567	0.014
⌊	Kr	83		**ug/L**		88	-0.000
⌈>	Lu	175		**ug/L**		402992	402991.624
⌊	Tl	205	**51.709**	**ug/L**	3.328	790111	1.960

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	106.261				
>	Sc	45		94.7			
	Ni	60	102.961				
>	Ge	74		95.9			
	As	75	96.639				
	Se	77					
	Se	82	97.973				
	Kr	83					
>	Lu	175		96.8			
	Tl	205	103.418				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, March 08, 2010 16:46:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 7.112

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.005**	**ug/L**	216.820	16	-0.000
|>	Sc	45		**ug/L**		868486	868486.269
⌊	Ni	60	**0.002**	**ug/L**	164.220	86	0.000
⌈>	Ge	74		**ug/L**		328153	328153.483
|	As	75	**0.328**	**ug/L**	93.715	61	0.001
|	Se	77		**ug/L**		4699	-0.001
|	Se	82	**0.044**	**ug/L**	233.029	18	0.000
⌊	Kr	83		**ug/L**		95	-0.000
⌈>	Lu	175		**ug/L**		410512	410511.998
⌊	Tl	205	**0.069**	**ug/L**	10.803	1836	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.2			
	Ni	60					
>	Ge	74		96.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, March 08, 2010 17:15:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 6.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.520**	**ug/L**	2.523	19140	0.023
>	Sc	45		**ug/L**		829607	829607.145
	Ni	60	**51.462**	**ug/L**	1.191	55991	0.067
>	Ge	74		**ug/L**		317822	317821.699
	As	75	**48.196**	**ug/L**	1.493	40846	0.129
	Se	77		**ug/L**		7523	0.008
	Se	82	**49.441**	**ug/L**	0.835	4502	0.014
	Kr	83		**ug/L**		106	0.000
>	Lu	175		**ug/L**		403552	403551.663
	Tl	205	**51.068**	**ug/L**	1.082	781915	1.936

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	107.040				
>	Sc	45		91.0			
	Ni	60	102.923				
>	Ge	74		93.6			
	As	75	96.393				
	Se	77					
	Se	82	98.881				
	Kr	83					
>	Lu	175		96.9			
	Tl	205	102.136				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, March 08, 2010 17:19:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 7.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	224.294	21	0.000
>	Sc	45		**ug/L**		838379	838379.190
	Ni	60	**0.010**	**ug/L**	87.105	92	0.000
>	Ge	74		**ug/L**		321812	321811.689
	As	75	**0.196**	**ug/L**	218.906	-49	0.001
	Se	77		**ug/L**		4656	-0.001
	Se	82	**0.002**	**ug/L**	2406.754	14	0.000
	Kr	83		**ug/L**		91	-0.000
>	Lu	175		**ug/L**		408936	408935.719
	Tl	205	**0.064**	**ug/L**	5.031	1766	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.9			
	Ni	60					
>	Ge	74		94.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, March 08, 2010 17:48:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 6.129

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.496**	**ug/L**	0.602	19109	0.023
>	Sc	45		**ug/L**		813317	813317.375
	Ni	60	**50.569**	**ug/L**	1.770	53943	0.066
>	Ge	74		**ug/L**		310242	310241.583
	As	75	**48.148**	**ug/L**	1.602	39829	0.129
	Se	77		**ug/L**		7125	0.008
	Se	82	**48.788**	**ug/L**	1.631	4337	0.014
	Kr	83		**ug/L**		103	0.000
>	Lu	175		**ug/L**		399152	399151.658
	Tl	205	**51.045**	**ug/L**	0.656	772972	1.935

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	108.992				
>	Sc	45		89.2			
	Ni	60	101.138				
>	Ge	74		91.4			
	As	75	96.297				
	Se	77					
	Se	82	97.577				
	Kr	83					
>	Lu	175		95.9			
	Tl	205	102.089				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, March 08, 2010 17:51:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 7.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	41.102	20	0.000
>	Sc	45		**ug/L**		824569	824568.819
	Ni	60	**0.003**	**ug/L**	220.817	82	0.000
>	Ge	74		**ug/L**		309412	309412.435
	As	75	**0.264**	**ug/L**	71.988	5	0.001
	Se	77		**ug/L**		4335	-0.001
	Se	82	**0.023**	**ug/L**	427.193	15	0.000
	Kr	83		**ug/L**		88	-0.000
>	Lu	175		**ug/L**		412776	412775.648
	Tl	205	**0.057**	**ug/L**	6.404	1668	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.4			
	Ni	60					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042560
Sample Date/Time: Monday, March 08, 2010 17:55:38
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 952947|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\1202042560.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	12.936	20	0.000
>	Sc	45		**ug/L**		801198	801197.987
	Ni	60	**13.396**	**ug/L**	3.380	14130	0.018
>	Ge	74		**ug/L**		298224	298223.978
	As	75	**0.172**	**ug/L**	172.364	-66	0.000
	Se	77		**ug/L**		2925	-0.005
	Se	82	**0.290**	**ug/L**	110.606	38	0.000
	Kr	83		**ug/L**		79	-0.000
>	Lu	175		**ug/L**		407211	407211.372
	Tl	205	**0.012**	**ug/L**	14.310	953	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		87.8			
	Ni	60					
>	Ge	74		87.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042565
Sample Date/Time: Monday, March 08, 2010 17:59:19
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 952947|40|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\1202042565.132

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**21.905**	**ug/L**	1.500	7691	0.009
>	Sc	45		**ug/L**		813387	813386.913
	Ni	60	**36.424**	**ug/L**	1.243	38878	0.048
>	Ge	74		**ug/L**		306709	306708.944
	As	75	**27.379**	**ug/L**	1.388	22301	0.073
	Se	77		**ug/L**		8708	0.013
	Se	82	**77.505**	**ug/L**	0.932	6803	0.022
	Kr	83		**ug/L**		94	0.000
>	Lu	175		**ug/L**		401329	401329.411
	Tl	205	**35.647**	**ug/L**	1.057	542944	1.351

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.2			
	Ni	60					
>	Ge	74		90.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246837001
Sample Date/Time: Monday, March 08, 2010 18:03:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 952947|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\246837001.133

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.724**	**ug/L**	7.002	636	0.001
>	Sc	45		**ug/L**		832928	832928.227
	Ni	60	**91.367**	**ug/L**	2.175	99746	0.120
>	Ge	74		**ug/L**		298365	298364.541
	As	75	**3.515**	**ug/L**	9.586	2605	0.009
	Se	77		**ug/L**		2863	-0.006
	Se	82	**0.361**	**ug/L**	32.316	43	0.000
	Kr	83		**ug/L**		141	0.000
>	Lu	175		**ug/L**		419045	419045.467
	Tl	205	**0.259**	**ug/L**	2.470	4894	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.3			
	Ni	60					
>	Ge	74		87.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042561
Sample Date/Time: Monday, March 08, 2010 18:06:41
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 952947|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\1202042561.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.693**	**ug/L**	4.744	629	0.001
>	Sc	45		**ug/L**		838483	838482.827
	Ni	60	**80.382**	**ug/L**	3.720	88319	0.105
>	Ge	74		**ug/L**		295618	295618.314
	As	75	**3.381**	**ug/L**	9.452	2475	0.009
	Se	77		**ug/L**		2739	-0.006
	Se	82	**-0.161**	**ug/L**	124.880	-1	-0.000
	Kr	83		**ug/L**		164	0.000
>	Lu	175		**ug/L**		421986	421985.991
	Tl	205	**0.211**	**ug/L**	3.350	4173	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.9			
	Ni	60					
>	Ge	74		87.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042563
Sample Date/Time: Monday, March 08, 2010 18:10:20
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 952947|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\1202042563.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.378**	**ug/L**	3.405	8704	0.011
>	Sc	45		**ug/L**		827886	827885.921
	Ni	60	**98.021**	**ug/L**	4.067	106280	0.128
>	Ge	74		**ug/L**		295066	295066.475
	As	75	**36.579**	**ug/L**	1.811	28729	0.098
	Se	77		**ug/L**		3191	-0.004
	Se	82	**8.284**	**ug/L**	0.664	711	0.002
	Kr	83		**ug/L**		153	0.000
>	Lu	175		**ug/L**		422048	422047.831
	Tl	205	**43.721**	**ug/L**	0.580	700184	1.657

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.8			
	Ni	60					
>	Ge	74		86.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042564
Sample Date/Time: Monday, March 08, 2010 18:14:00
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 952947|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\1202042564.136

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**26.692**	**ug/L**	1.864	9537	0.011
>	Sc	45		**ug/L**		828094	828094.412
	Ni	60	**122.252**	**ug/L**	1.945	132657	0.160
>	Ge	74		**ug/L**		295334	295333.539
	As	75	**39.772**	**ug/L**	3.645	31284	0.107
	Se	77		**ug/L**		3331	-0.004
	Se	82	**8.879**	**ug/L**	3.207	762	0.003
	Kr	83		**ug/L**		168	0.000
>	Lu	175		**ug/L**		420710	420710.024
	Tl	205	**48.242**	**ug/L**	1.082	769934	1.829

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.8			
	Ni	60					
>	Ge	74		87.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042562
Sample Date/Time: Monday, March 08, 2010 18:17:40
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 952947|10|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\1202042562.137

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.357**	**ug/L**	22.120	133	0.000
>	Sc	45		**ug/L**		761749	761748.511
	Ni	60	**20.586**	**ug/L**	0.977	20611	0.027
>	Ge	74		**ug/L**		286754	286754.264
	As	75	**0.905**	**ug/L**	7.168	498	0.002
	Se	77		**ug/L**		3347	-0.004
	Se	82	**-0.054**	**ug/L**	296.820	8	-0.000
	Kr	83		**ug/L**		101	0.000
>	Lu	175		**ug/L**		382256	382255.537
	Tl	205	**0.042**	**ug/L**	2.934	1332	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		83.5			
	Ni	60					
>	Ge	74		84.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		91.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246837002
Sample Date/Time: Monday, March 08, 2010 18:21:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 952947|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\246837002.138

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.822**	**ug/L**	2.782	671	0.001
>	Sc	45		**ug/L**		832900	832900.394
	Ni	60	**12.616**	**ug/L**	2.180	13841	0.017
>	Ge	74		**ug/L**		293904	293904.425
	As	75	**5.770**	**ug/L**	6.366	4345	0.015
	Se	77		**ug/L**		2761	-0.006
	Se	82	**-0.260**	**ug/L**	91.527	-9	-0.000
	Kr	83		**ug/L**		155	0.000
>	Lu	175		**ug/L**		420421	420421.279
	Tl	205	**0.169**	**ug/L**	2.114	3480	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.3			
	Ni	60					
>	Ge	74		86.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, March 08, 2010 18:25:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 6.139

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.273**	**ug/L**	2.624	18765	0.023
>	Sc	45		**ug/L**		817223	817223.452
	Ni	60	**50.084**	**ug/L**	2.580	53677	0.066
>	Ge	74		**ug/L**		308174	308173.659
	As	75	**48.245**	**ug/L**	0.257	39646	0.129
	Se	77		**ug/L**		7248	0.008
	Se	82	**49.377**	**ug/L**	1.722	4360	0.014
	Kr	83		**ug/L**		103	0.000
>	Lu	175		**ug/L**		399122	399122.150
	Tl	205	**50.943**	**ug/L**	1.580	771288	1.931

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	106.545				
>	Sc	45		89.6			
	Ni	60	100.167				
>	Ge	74		90.8			
	As	75	96.490				
	Se	77					
	Se	82	98.754				
	Kr	83					
>	Lu	175		95.8			
	Tl	205	101.887				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, March 08, 2010 18:28:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 7.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.016**	**ug/L**	38.787	23	0.000
>	Sc	45		**ug/L**		819034	819033.734
	Ni	60	**0.015**	**ug/L**	106.302	95	0.000
>	Ge	74		**ug/L**		312781	312780.833
	As	75	**0.081**	**ug/L**	177.793	-147	0.000
	Se	77		**ug/L**		4422	-0.001
	Se	82	**-0.092**	**ug/L**	306.814	5	-0.000
	Kr	83		**ug/L**		95	0.000
>	Lu	175		**ug/L**		402958	402958.280
	Tl	205	**0.064**	**ug/L**	7.209	1730	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		89.8			
⌊	Ni	60					
⌈>	Ge	74		92.1			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		96.8			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246837003
Sample Date/Time: Monday, March 08, 2010 18:32:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 952947|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\246837003.141

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.304**	**ug/L**	5.337	478	0.001
|>	Sc	45		**ug/L**		819989	819988.789
⌊	Ni	60	**58.883**	**ug/L**	0.845	63317	0.077
⌈>	Ge	74		**ug/L**		296610	296610.210
|	As	75	**3.865**	**ug/L**	1.277	2869	0.010
|	Se	77		**ug/L**		2861	-0.006
|	Se	82	**-0.039**	**ug/L**	336.202	9	-0.000
⌊	Kr	83		**ug/L**		158	0.000
⌈>	Lu	175		**ug/L**		417130	417129.523
⌊	Tl	205	**0.205**	**ug/L**	4.593	4019	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.9			
	Ni	60					
>	Ge	74		87.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246837004
Sample Date/Time: Monday, March 08, 2010 18:36:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 952947|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\246837004.142

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.782**	**ug/L**	2.553	1014	0.001
>	Sc	45		**ug/L**		831950	831949.525
	Ni	60	**19.672**	**ug/L**	1.172	21513	0.026
>	Ge	74		**ug/L**		296598	296597.910
	As	75	**6.614**	**ug/L**	4.210	5052	0.018
	Se	77		**ug/L**		2802	-0.006
	Se	82	**-0.351**	**ug/L**	9.241	-17	-0.000
	Kr	83		**ug/L**		166	0.000
>	Lu	175		**ug/L**		397419	397418.553
	Tl	205	**0.500**	**ug/L**	2.251	8279	0.019

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.2			
	Ni	60					
>	Ge	74		87.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246837005
Sample Date/Time: Monday, March 08, 2010 18:39:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 952947|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\246837005.143

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.729**	**ug/L**	8.227	647	0.001
>	Sc	45		**ug/L**		844779	844779.390
	Ni	60	**56.262**	**ug/L**	3.496	62301	0.074
>	Ge	74		**ug/L**		292729	292729.286
	As	75	**5.594**	**ug/L**	2.306	4188	0.015
	Se	77		**ug/L**		2657	-0.006
	Se	82	**-0.446**	**ug/L**	22.535	-25	-0.000
	Kr	83		**ug/L**		171	0.000
>	Lu	175		**ug/L**		407662	407662.025
	Tl	205	**0.234**	**ug/L**	3.659	4387	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.6			
	Ni	60					
>	Ge	74		86.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246837006
Sample Date/Time: Monday, March 08, 2010 18:43:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 952947|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\246837006.144

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.680**	**ug/L**	2.269	997	0.001
>	Sc	45		**ug/L**		848686	848685.814
	Ni	60	**22.906**	**ug/L**	1.999	25542	0.030
>	Ge	74		**ug/L**		297581	297581.492
	As	75	**8.768**	**ug/L**	1.444	6790	0.024
	Se	77		**ug/L**		2767	-0.006
	Se	82	**-0.613**	**ug/L**	37.628	-40	-0.000
	Kr	83		**ug/L**		179	0.000
>	Lu	175		**ug/L**		399526	399525.512
	Tl	205	**0.440**	**ug/L**	2.423	7413	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.0			
	Ni	60					
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, March 08, 2010 18:58:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 6.148

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.093**	**ug/L**	1.065	18675	0.023
>	Sc	45		**ug/L**		815841	815841.330
	Ni	60	**49.956**	**ug/L**	1.189	53456	0.065
>	Ge	74		**ug/L**		308142	308141.586
	As	75	**47.891**	**ug/L**	0.462	39350	0.128
	Se	77		**ug/L**		7157	0.008
	Se	82	**49.087**	**ug/L**	1.595	4333	0.014
	Kr	83		**ug/L**		89	-0.000
>	Lu	175		**ug/L**		394902	394901.720
	Tl	205	**50.753**	**ug/L**	2.877	760165	1.924

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	106.187				
>	Sc	45		89.4			
	Ni	60	99.913				
>	Ge	74		90.8			
	As	75	95.782				
	Se	77					
	Se	82	98.173				
	Kr	83					
>	Lu	175		94.8			
	Tl	205	101.505				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, March 08, 2010 19:01:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100308\QC Std 7.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.014**	**ug/L**	85.669	22	0.000
>	Sc	45		**ug/L**		820188	820188.459
	Ni	60	**0.018**	**ug/L**	81.094	98	0.000
>	Ge	74		**ug/L**		314131	314131.123
	As	75	**0.260**	**ug/L**	149.481	2	0.001
	Se	77		**ug/L**		4528	-0.001
	Se	82	**-0.199**	**ug/L**	15.661	-5	-0.000
	Kr	83		**ug/L**		103	0.000
>	Lu	175		**ug/L**		404564	404564.294
	Tl	205	**0.063**	**ug/L**	7.156	1732	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.9			
	Ni	60					
>	Ge	74		92.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/26/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 022610S1.SIF Results Data Set Name: 022610S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/26/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0041	0.0041	09:58:12	No
2			0.0040	0.0040	09:58:47	No
Mean:			0.0041			
SD :			0.0001			
%RSD:			3.4725			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 02/26/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0024	0.0065	10:00:09	No
2			0.0024	0.0064	10:00:43	No
Mean:			0.0024			
SD :			0.0000			
%RSD:			0.2880			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.01201
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 02/26/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0051	0.0091	10:02:07	No
2			0.0051	0.0092	10:02:42	No
Mean:			0.0051			
SD :			0.0000			
%RSD:			0.8939			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99670 Slope: 0.01011
Intercept : 0.00014

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 02/26/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0208	0.0249	10:04:07	No
2			0.0204	0.0244	10:04:42	No
Mean:			0.0206			
SD :			0.0003			
%RSD:			1.6365			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99983 Slope: 0.01024
Intercept : 0.00011

==========
Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/26/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0496	0.0536	10:06:07	No
2			0.0496	0.0537	10:06:42	No
Mean:			0.0496			
SD :			0.0000			
%RSD:						

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99988 Slope: 0.00990
Intercept : 0.00030

==========
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/26/2010
Sample ID: S10

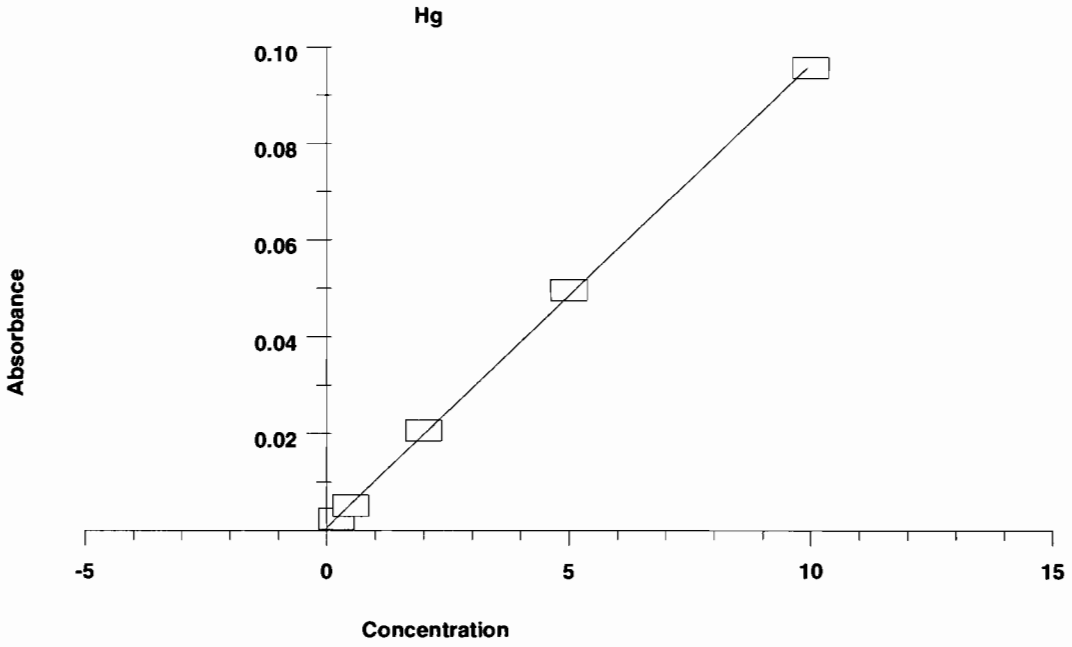
Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0958	0.0998	10:08:08	No
2			0.0956	0.0996	10:08:43	No
Mean:			0.0957			
SD :			0.0001			
%RSD:			0.1484			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99980 Slope: 0.00957
Intercept : 0.00067

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0041	---	----	----	----
S0.2	0.0024	0.200	0.181	0.0000	0.3
S0.5	0.0051	0.500	0.463	0.0000	0.9
S2.0	0.0206	2.000	2.083	0.0003	1.6
S5.0	0.0496	5.000	5.113	0.0000	----
S10	0.0957	10.000	9.929	0.0001	0.1

Correlation Coefficient: 0.99980 Slope: 0.00957 Intercept: 0.0007



==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/26/2010

Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.130	5.130	0.0498	0.0538	10:10:11	No
2	5.137	5.137	0.0498	0.0539	10:10:47	No
Mean:	5.133	5.133	0.0498			
SD :	0.0048	0.0048	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/26/2010

Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.105	-0.105	-0.0003	0.0037	10:12:09	No
2	-0.120	-0.120	-0.0005	0.0036	10:12:44	No
Mean:	-0.112	-0.112	-0.0004			
SD :	0.0112	0.0112	0.0001			
%RSD:	10.0	10.0	26.2116			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/26/2010

Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.196	0.196	0.0025	0.0066	10:14:07	No
2	0.186	0.186	0.0024	0.0065	10:14:41	No
Mean:	0.191	0.191	0.0025			
SD :	0.0069	0.0069	0.0001			
%RSD:	3.6	3.6	2.6421			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/26/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.055	5.055	0.0490	0.0531	10:16:07	No
2	5.170	5.170	0.0501	0.0542	10:16:41	No
Mean:	5.112	5.112	0.0496			
SD :	0.0809	0.0809	0.0008			
%RSD:	1.6	1.6	1.5602			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/26/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.046	-0.046	0.0002	0.0043	10:18:09	No
2	-0.069	-0.069	0.0000	0.0041	10:18:44	No
Mean:	-0.057	-0.057	0.0001			
SD :	0.0164	0.0164	0.0002			
%RSD:	28.7	28.7	132.8005			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/26/2010
Sample ID: 1202039457|i||951632|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.045	-0.045	0.0002	0.0043	10:20:10	No
2	-0.048	-0.048	0.0002	0.0043	10:20:44	No
Mean:	-0.046	-0.046	0.0002			
SD :	0.0020	0.0020	0.0000			
%RSD:	4.4	4.4	8.6886			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/26/2010
Sample ID: 1202039458|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.612	3.612	0.0352	0.0393	10:22:09	No
2	3.664	3.664	0.0357	0.0398	10:22:44	No
Mean:	3.638	3.638	0.0355			
SD :	0.0370	0.0370	0.0004			
%RSD:	1.0	1.0	0.9970			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/26/2010
Sample ID: 246557001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.079	0.079	0.0014	0.0055	10:24:09	No
2	0.079	0.079	0.0014	0.0055	10:24:45	No
Mean:	0.079	0.079	0.0014			
SD :	0.0004	0.0004	0.0000			
%RSD:	0.5	0.5	0.2841			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/26/2010
Sample ID: 246566001|i|||

%RSD: 3.0 3.0 2.0650

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/26/2010
Sample ID: 246566003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.411	0.411	0.0046	0.0086	10:37:56	No
2	0.410	0.410	0.0046	0.0086	10:38:31	No
Mean:	0.410	0.410	0.0046			
SD :	0.0002	0.0002	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/26/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.109	5.109	0.0496	0.0536	10:39:55	No
2	4.985	4.985	0.0484	0.0524	10:40:30	No
Mean:	5.047	5.047	0.0490			
SD :	0.0879	0.0879	0.0008			
%RSD:	1.7	1.7	1.7180			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/26/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.061	-0.061	0.0001	0.0041	10:41:58	No
2	-0.069	-0.069	0.0000	0.0041	10:42:33	No
Mean:	-0.065	-0.065	0.0000			
SD :	0.0051	0.0051	0.0000			
%RSD:	7.8	7.8	107.1557			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/26/2010
Sample ID: 246566004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.250	0.250	0.0031	0.0071	10:43:59	No
2	0.248	0.248	0.0030	0.0071	10:44:33	No
Mean:	0.249	0.249	0.0030			
SD :	0.0018	0.0018	0.0000			
%RSD:	0.7	0.7	0.5800			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/26/2010
Sample ID: 246566005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0010	0.0050	10:45:56	No
2	0.024	0.024	0.0009	0.0049	10:46:31	No
Mean:	0.028	0.028	0.0009			
SD :	0.0057	0.0057	0.0001			
%RSD:	20.5	20.5	5.8875			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/26/2010
Sample ID: 246566006|i|||

%RSD: 19.1 19.1 11.4166

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 02/26/2010
Sample ID: 1202053830|i||957797|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.032	-0.032	0.0004	0.0044	10:59:56	No
2	-0.043	-0.043	0.0003	0.0043	11:00:31	No
Mean:	-0.038	-0.038	0.0003			
SD :	0.0075	0.0075	0.0001			
%RSD:	19.9	19.9	23.3833			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 02/26/2010
Sample ID: 1202053831|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.138	4.138	0.0403	0.0443	11:01:58	No
2	4.217	4.217	0.0410	0.0451	11:02:33	No
Mean:	4.178	4.178	0.0406			
SD :	0.0557	0.0557	0.0005			
%RSD:	1.3	1.3	1.3112			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/26/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.292	5.292	0.0513	0.0554	11:04:00	No
2	5.280	5.280	0.0512	0.0552	11:04:35	No
Mean:	5.286	5.286	0.0513			
SD :	0.0085	0.0085	0.0001			
%RSD:	0.2	0.2	0.1583			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 02/26/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.071	-0.071	0.0000	0.0040	11:06:03	No
2	-0.066	-0.066	0.0000	0.0041	11:06:38	No
Mean:	-0.068	-0.068	0.0000			
SD :	0.0030	0.0030	0.0000			
%RSD:	4.5	4.5	243.0509			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 02/26/2010
Sample ID: 246837001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.310	0.310	0.0036	0.0077	11:08:02	No
2	0.304	0.304	0.0036	0.0076	11:08:38	No
Mean:	0.307	0.307	0.0036			
SD :	0.0040	0.0040	0.0000			
%RSD:	1.3	1.3	1.0664			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 02/26/2010
Sample ID: 246837002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.255	0.255	0.0031	0.0072	11:09:57	No
2	0.261	0.261	0.0032	0.0072	11:10:32	No
Mean:	0.258	0.258	0.0031			
SD :	0.0039	0.0039	0.0000			
%RSD:	1.5	1.5	1.1889			

Element: Hg Seq. No.: 38 AS Loc.: 34 Date: 02/26/2010
Sample ID: 246837003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.195	0.195	0.0025	0.0066	11:11:52	No
2	0.188	0.188	0.0025	0.0065	11:12:27	No
Mean:	0.192	0.192	0.0025			
SD :	0.0052	0.0052	0.0000			
%RSD:	2.7	2.7	1.9862			

Element: Hg Seq. No.: 39 AS Loc.: 35 Date: 02/26/2010
Sample ID: 246837004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.091	0.091	0.0015	0.0056	11:13:48	No
2	0.082	0.082	0.0014	0.0055	11:14:23	No
Mean:	0.086	0.086	0.0015			
SD :	0.0063	0.0063	0.0001			
%RSD:	7.3	7.3	4.0198			

Element: Hg Seq. No.: 40 AS Loc.: 36 Date: 02/26/2010
Sample ID: 246837005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.173	0.173	0.0023	0.0064	11:15:44	No
2	0.151	0.151	0.0021	0.0062	11:16:19	No
Mean:	0.162	0.162	0.0022			
SD :	0.0156	0.0156	0.0001			
%RSD:	9.7	9.7	6.7530			

Element: Hg Seq. No.: 41 AS Loc.: 37 Date: 02/26/2010
Sample ID: 246837006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.140	0.140	0.0020	0.0061	11:17:41	No
2	0.149	0.149	0.0021	0.0061	11:18:16	No
Mean:	0.144	0.144	0.0020			
SD :	0.0059	0.0059	0.0001			
%RSD:	4.1	4.1	2.7567			

Element: Hg Seq. No.: 42 AS Loc.: 38 Date: 02/26/2010
Sample ID: 246881001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0029	0.0070	11:19:38	No
2	0.249	0.249	0.0031	0.0071	11:20:13	No
Mean:	0.242	0.242	0.0030			
SD :	0.0102	0.0102	0.0001			

```
%RSD:       4.2        4.2    3.2862

==========================================================================================
Element: Hg    Seq. No.: 43       AS Loc.: 39   Date: 02/26/2010
Sample ID: 1202053832|i|||DUP
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.320     0.320    0.0037     0.0078   11:21:36  No
 2        0.314     0.314    0.0037     0.0077   11:22:11  No
Mean:     0.317     0.317    0.0037
SD  :    0.0045    0.0045    0.0000
%RSD:       1.4        1.4    1.1594

==========================================================================================
Element: Hg    Seq. No.: 44       AS Loc.: 40   Date: 02/26/2010
Sample ID: 1202053833|i|||MS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        2.517     2.517    0.0248     0.0288   11:23:35  No
 2        2.504     2.504    0.0246     0.0287   11:24:10  No
Mean:     2.511     2.511    0.0247
SD  :    0.0089    0.0089    0.0001
%RSD:       0.4        0.4    0.3452

==========================================================================================
Element: Hg    Seq. No.: 45       AS Loc.: 41   Date: 02/26/2010
Sample ID: 1202053835|i|||MSD
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        2.599     2.599    0.0255     0.0296   11:25:34  No
 2        2.519     2.519    0.0248     0.0288   11:26:09  No
Mean:     2.559     2.559    0.0252
SD  :    0.0560    0.0560    0.0005
%RSD:       2.2        2.2    2.1290

==========================================================================================
Element: Hg    Seq. No.: 46       AS Loc.: 7    Date: 02/26/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        5.400     5.400    0.0523     0.0564   11:27:34  No
 2        5.519     5.519    0.0535     0.0575   11:28:09  No
Mean:     5.459     5.459    0.0529
SD  :    0.0839    0.0839    0.0008
%RSD:       1.5        1.5    1.5171
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 47       AS Loc.: 8    Date: 02/26/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       -0.081    -0.081   -0.0001     0.0039   11:29:37  No
 2       -0.086    -0.086   -0.0002     0.0039   11:30:12  No
Mean:    -0.083    -0.083   -0.0001
SD  :    0.0034    0.0034    0.0000
%RSD:       4.1        4.1   25.4612
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 48       AS Loc.: 42   Date: 02/26/2010
Sample ID: 1202053834|i|5||SDILT
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.132	-0.132	-0.0006	0.0035	11:31:39	No
2	-0.137	-0.137	-0.0006	0.0034	11:32:14	No
Mean:	-0.134	-0.134	-0.0006			
SD :	0.0041	0.0041	0.0000			
%RSD:	3.1	3.1	6.3805			

Element: Hg Seq. No.: 49 AS Loc.: 43 Date: 02/26/2010
Sample ID: 246881002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.288	0.288	0.0034	0.0075	11:33:39	No
2	0.266	0.266	0.0032	0.0073	11:34:14	No
Mean:	0.277	0.277	0.0033			
SD :	0.0157	0.0157	0.0002			
%RSD:	5.7	5.7	4.5437			

Element: Hg Seq. No.: 50 AS Loc.: 44 Date: 02/26/2010
Sample ID: 246881003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.505	0.505	0.0055	0.0095	11:35:40	No
2	0.483	0.483	0.0053	0.0093	11:36:14	No
Mean:	0.494	0.494	0.0054			
SD :	0.0150	0.0150	0.0001			
%RSD:	3.0	3.0	2.6612			

Element: Hg Seq. No.: 51 AS Loc.: 45 Date: 02/26/2010
Sample ID: 246881004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.109	0.109	0.0017	0.0058	11:37:40	No
2	0.103	0.103	0.0017	0.0057	11:38:15	No
Mean:	0.106	0.106	0.0017			
SD :	0.0045	0.0045	0.0000			
%RSD:	4.3	4.3	2.5731			

Element: Hg Seq. No.: 52 AS Loc.: 46 Date: 02/26/2010
Sample ID: 246881005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.329	0.329	0.0038	0.0079	11:39:41	No
2	0.310	0.310	0.0036	0.0077	11:40:16	No
Mean:	0.319	0.319	0.0037			
SD :	0.0130	0.0130	0.0001			
%RSD:	4.1	4.1	3.3497			

Element: Hg Seq. No.: 53 AS Loc.: 47 Date: 02/26/2010
Sample ID: 246881006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.133	0.133	0.0019	0.0060	11:41:43	No
2	0.133	0.133	0.0019	0.0060	11:42:18	No
Mean:	0.133	0.133	0.0019			
SD :	0.0005	0.0005	0.0000			

```
%RSD:        0.4         0.4     0.2352

==========================================================================================
Element: Hg    Seq. No.: 54       AS Loc.: 48   Date: 02/26/2010
Sample ID: 246881007|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.262     0.262    0.0032     0.0072   11:43:42  No
 2        0.258     0.258    0.0031     0.0072   11:44:17  No
Mean:     0.260     0.260    0.0032
SD  :    0.0029    0.0029    0.0000
%RSD:       1.1        1.1    0.8785

==========================================================================================
Element: Hg    Seq. No.: 55       AS Loc.: 49   Date: 02/26/2010
Sample ID: 246881008|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        2.111     2.111    0.0209     0.0249   11:45:37  No
 2        2.101     2.101    0.0208     0.0248   11:46:12  No
Mean:     2.106     2.106    0.0208
SD  :    0.0071    0.0071    0.0001
%RSD:       0.3        0.3    0.3270

==========================================================================================
Element: Hg    Seq. No.: 56       AS Loc.: 50   Date: 02/26/2010
Sample ID: 246881009|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.327     0.327    0.0038     0.0078   11:47:32  No
 2        0.332     0.332    0.0038     0.0079   11:48:07  No
Mean:     0.329     0.329    0.0038
SD  :    0.0037    0.0037    0.0000
%RSD:       1.1        1.1    0.9346

==========================================================================================
Element: Hg    Seq. No.: 57       AS Loc.: 51   Date: 02/26/2010
Sample ID: 246881010|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.269     0.269    0.0032     0.0073   11:49:27  No
 2        0.263     0.263    0.0032     0.0072   11:50:02  No
Mean:     0.266     0.266    0.0032
SD  :    0.0037    0.0037    0.0000
%RSD:       1.4        1.4    1.1122

==========================================================================================
Element: Hg    Seq. No.: 58       AS Loc.: 7    Date: 02/26/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.879     4.879    0.0474     0.0514   11:51:26  No
 2        4.888     4.888    0.0474     0.0515   11:52:01  No
Mean:     4.883     4.883    0.0474
SD  :    0.0064    0.0064    0.0001
%RSD:       0.1        0.1    0.1283
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 59       AS Loc.: 8    Date: 02/26/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
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Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.175	-0.175	-0.0010	0.0030	11:53:29	No
2	-0.174	-0.174	-0.0010	0.0031	11:54:04	No
Mean:	-0.174	-0.174	-0.0010			
SD :	0.0009	0.0009	0.0000			
%RSD:	0.5	0.5	0.8694			

QC value within specified limits.

==========

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 02/26/2010
Sample ID: 246881011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.552	0.552	0.0059	0.0100	11:55:30	No
2	0.534	0.534	0.0058	0.0098	11:56:05	No
Mean:	0.543	0.543	0.0059			
SD :	0.0125	0.0125	0.0001			
%RSD:	2.3	2.3	2.0474			

==========

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 02/26/2010
Sample ID: 246881012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.652	5.652	0.0548	0.0588	11:57:27	No
2	5.712	5.712	0.0553	0.0594	11:58:02	No
Mean:	5.682	5.682	0.0550			
SD :	0.0425	0.0425	0.0004			
%RSD:	0.7	0.7	0.7394			

==========

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 02/26/2010
Sample ID: 246881013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.124	1.124	0.0114	0.0155	11:59:24	No
2	1.113	1.113	0.0113	0.0154	11:59:59	No
Mean:	1.119	1.119	0.0114			
SD :	0.0078	0.0078	0.0001			
%RSD:	0.7	0.7	0.6524			

==========

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 02/26/2010
Sample ID: 246881014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.063	1.063	0.0108	0.0149	12:01:22	No
2	1.028	1.028	0.0105	0.0146	12:01:57	No
Mean:	1.045	1.045	0.0107			
SD :	0.0247	0.0247	0.0002			
%RSD:	2.4	2.4	2.2151			

==========

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 02/26/2010
Sample ID: 1202053357|i||957610|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.106	-0.106	-0.0003	0.0037	12:03:20	No
2	-0.109	-0.109	-0.0004	0.0037	12:03:55	No
Mean:	-0.108	-0.108	-0.0004			
SD :	0.0025	0.0025	0.0000			

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 952946.0 **Verified by:** _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202042560 MB	22-FEB-2010 07:00:00	0.5	50	100	
1202042565 LCS	22-FEB-2010 07:00:00	0.513	50	97.46589	
246837001	22-FEB-2010 07:00:00	0.511	50	97.84736	
1202042561 DUP (246837001)	22-FEB-2010 07:00:00	0.522	50	95.78544	
1202042562 SDILT (246837001)	22-FEB-2010 07:00:00	0.511	50	97.84736	
1202042563 MS (246837001)	22-FEB-2010 07:00:00	0.513	50	97.46589	
1202042564 MSD (246837001)	22-FEB-2010 07:00:00	0.51	50	98.03922	
246837002	22-FEB-2010 07:00:00	0.501	50	99.8004	
246837003	22-FEB-2010 07:00:00	0.501	50	99.8004	
246837004	22-FEB-2010 07:00:00	0.546	50	91.57509	
246837005	22-FEB-2010 07:00:00	0.502	50	99.60159	
246837006	22-FEB-2010 07:00:00	0.582	50	85.91065	
246870001	22-FEB-2010 07:00:00	0.519	50	96.33911	
246870002	22-FEB-2010 07:00:00	0.505	50	99.0099	
246870003	22-FEB-2010 07:00:00	0.504	50	99.20635	
246870004	22-FEB-2010 07:00:00	0.53	50	94.33962	
246870005	22-FEB-2010 07:00:00	0.536	50	93.28358	
246870006	22-FEB-2010 07:00:00	0.516	50	96.89922	
246870007	22-FEB-2010 07:00:00	0.5	50	100	
246870008	22-FEB-2010 07:00:00	0.504	50	99.20635	
246870009	22-FEB-2010 07:00:00	0.504	50	99.20635	
246870010	22-FEB-2010 07:00:00	0.526	50	95.05703	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202042565	Metals Soil LCS SRM ICPMS	UI062540-MS	.513	g
MS	1202042563	ICP-MS Spike for soil products.	UI091015-A	.5	mL
MS	1202042563	ICP-MS Spike for Soil Products	UI091015-B	.5	mL
MSD	1202042564	ICP-MS Spike for soil products.	UI091015-A	.5	mL
MSD	1202042564	ICP-MS Spike for Soil Products	UI091015-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1268732	5	mL

Comments:

Sample 246837001 consist of soft, brown soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **952944.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202042559	Metals Soil LCS SRM ICP/Hg	UI062540-I	.511	g
MS	1202042557	Metals Spike Mix I	UI100205-0I	.25	mL
MS	1202042557	Metals Spike Mix II	UI100205-06	.25	mL
MSD	1202042558	Metals Spike Mix I	UI100205-0I	.25	mL
MSD	1202042558	Metals Spike Mix II	UI100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202042554 MB	22-FEB-2010 07:00:00	Soil	0.524	50	95.41985	
1202042559 LCS	22-FEB-2010 07:00:00	Soil	0.511	50	97.84736	
246837001	22-FEB-2010 07:00:00	Soil	0.503	50	99.40358	
1202042555 DUP (246837001)	22-FEB-2010 07:00:00	Soil	0.508	50	98.4252	
1202042556 SDILT (246837001)	22-FEB-2010 07:00:00	Soil	0.503	50	99.40358	
1202042557 MS (246837001)	22-FEB-2010 07:00:00	Soil	0.5	50	100	
1202042558 MSD (246837001)	22-FEB-2010 07:00:00	Soil	0.524	50	95.41985	
246837002	22-FEB-2010 07:00:00	Soil	0.545	50	91.74312	
246837003	22-FEB-2010 07:00:00	Soil	0.504	50	99.20635	
246837004	22-FEB-2010 07:00:00	Soil	0.556	50	89.92806	
246837005	22-FEB-2010 07:00:00	Soil	0.501	50	99.8004	
246837006	22-FEB-2010 07:00:00	Soil	0.557	50	89.76661	
246870001	22-FEB-2010 07:00:00	Soil	0.523	50	95.60229	
246870002	22-FEB-2010 07:00:00	Soil	0.518	50	96.5251	
246870003	22-FEB-2010 07:00:00	Soil	0.527	50	94.87666	
246870004	22-FEB-2010 07:00:00	Soil	0.507	50	98.61933	
246870005	22-FEB-2010 07:00:00	Soil	0.512	50	97.65625	
246870006	22-FEB-2010 07:00:00	Soil	0.535	50	93.45794	
246870007	22-FEB-2010 07:00:00	Soil	0.524	50	95.41985	
246870008	22-FEB-2010 07:00:00	Soil	0.52	50	96.15385	
246870009	22-FEB-2010 07:00:00	Soil	0.508	50	98.4252	
246870010	22-FEB-2010 07:00:00	Soil	0.513	50	97.46589	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **952944.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202042559	Metals Soil LCS SRM ICP/Hg	UI062540-I	.511	g
MS	1202042557	Metals Spike Mix I	UI100205-01	.25	mL
MS	1202042557	Metals Spike Mix II	UI100205-06	.25	mL
MSD	1202042558	Metals Spike Mix I	UI100205-01	.25	mL
MSD	1202042558	Metals Spike Mix II	UI100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

1265209	HYDROCHLORIC ACID	10 mL
1268732	Nitric Acid CONC.	1.25 mL

Comments:

Sample 246837001 consist of soft, brown soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 963318.0 **Verified by:** _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202042560 - 2 MB	10-MAR-2010 06:00:00	0.51	50	98.03922	
1202042565 - 2 LCS	10-MAR-2010 06:00:00	0.511	50	97.84736	
246837001 - 2	10-MAR-2010 06:00:00	0.524	50	95.41985	
1202042561 - 2 DUP (246837001)	10-MAR-2010 06:00:00	0.51	50	98.03922	
1202042562 - 2 SDILT (246837001)	10-MAR-2010 06:00:00	0.524	50	95.41985	
1202042563 - 2 MS (246837001)	10-MAR-2010 06:00:00	0.509	50	98.23183	
1202042564 - 2 MSD (246837001)	10-MAR-2010 06:00:00	0.521	50	95.96929	
246837002 - 2	10-MAR-2010 06:00:00	0.533	50	93.80863	
246837003 - 2	10-MAR-2010 06:00:00	0.526	50	95.05703	
246837004 - 2	10-MAR-2010 06:00:00	0.543	50	92.08103	
246837005 - 2	10-MAR-2010 06:00:00	0.504	50	99.20635	
246837006 - 2	10-MAR-2010 06:00:00	0.568	50	88.02817	
246870001 - 2	10-MAR-2010 06:00:00	0.525	50	95.2381	
246870002 - 2	10-MAR-2010 06:00:00	0.526	50	95.05703	
246870003 - 2	10-MAR-2010 06:00:00	0.51	50	98.03922	
246870004 - 2	10-MAR-2010 06:00:00	0.556	50	89.92806	
246870005 - 2	10-MAR-2010 06:00:00	0.516	50	96.89922	
246870006 - 2	10-MAR-2010 06:00:00	0.513	50	97.46589	
246870007 - 2	10-MAR-2010 06:00:00	0.554	50	90.25271	
246870008 - 2	10-MAR-2010 06:00:00	0.513	50	97.46589	
246870009 - 2	10-MAR-2010 06:00:00	0.506	50	98.81423	
246870010 - 2	10-MAR-2010 06:00:00	0.51	50	98.03922	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202042565	Metals Soil LCS SRM ICPMS	UI062540-MS	.51	g
MS	1202042563	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MS	1202042563	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
MSD	1202042564	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MSD	1202042564	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1277919	5	mL

Comments:

Sample 246837001 consist of powdery, brown soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **957796.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053831	Metals LCS Soil SRM	UI031809A	.201	g
MS	1202053833	Mercury soil working intermediate standard for MS	WHG100225-14	.3	mL
MSD	1202053835	Mercury soil working intermediate standard for MS	WHG100225-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202053830 MB	25-FEB-2010 20:05:00	Soil	0.534	30	56.17978	
1202053831 LCS	25-FEB-2010 20:05:00	Soil	0.201	30	149.25373	
246837001	25-FEB-2010 20:05:00	Soil	0.516	30	58.13953	
246837002	25-FEB-2010 20:05:00	Soil	0.507	30	59.1716	
246837003	25-FEB-2010 20:05:00	Soil	0.535	30	56.07477	
246837004	25-FEB-2010 20:05:00	Soil	0.559	30	53.66726	
246837005	25-FEB-2010 20:05:00	Soil	0.539	30	55.65863	
246837006	25-FEB-2010 20:05:00	Soil	0.549	30	54.64481	
246881001	25-FEB-2010 20:05:00	Soil	0.527	30	56.926	
1202053832 DUP (246881001)	25-FEB-2010 20:05:00	Soil	0.502	30	59.76096	
1202053833 MS (246881001)	25-FEB-2010 20:05:00	Soil	0.533	30	56.28518	
1202053835 MSD (246881001)	25-FEB-2010 20:05:00	Soil	0.554	30	54.15162	
1202053834 SDILT (246881001)	25-FEB-2010 20:05:00	Soil	0.527	30	56.926	
246881002	25-FEB-2010 20:05:00	Soil	0.538	30	55.76208	
246881003	25-FEB-2010 20:05:00	Soil	0.54	30	55.55556	
246881004	25-FEB-2010 20:05:00	Soil	0.521	30	57.58157	
246881005	25-FEB-2010 20:05:00	Soil	0.556	30	53.95683	
246881006	25-FEB-2010 20:05:00	Soil	0.531	30	56.49718	
246881007	25-FEB-2010 20:05:00	Soil	0.569	30	52.72408	
246881008	25-FEB-2010 20:05:00	Soil	0.552	30	54.34783	
246881009	25-FEB-2010 20:05:00	Soil	0.523	30	57.36138	
246881010	25-FEB-2010 20:05:00	Soil	0.52	30	57.69231	
246881011	25-FEB-2010 20:05:00	Soil	0.532	30	56.39098	
246881012	25-FEB-2010 20:05:00	Soil	0.591	30	50.76142	
246881013	25-FEB-2010 20:05:00	Soil	0.508	30	59.05512	
246881014	25-FEB-2010 20:05:00	Soil	0.53	30	56.60377	

Prep Logbook

Batch ID: **957796.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053831	Metals LCS Soil SRM	U1031809A	.201	g
MS	1202053833	Mercury soil working intermediate standard for MS	WHG100225-14	.3	mL
MSD	1202053835	Mercury soil working intermediate standard for MS	WHG100225-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1274394-A	Hydrochloric Acid Conc.	1.125 mL
1274397-C	5% KMnO4 solution	7.5 mL
WHG100225-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100225-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100225-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100225-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100225-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100225-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 246881001 is a clumpy brown soil.

Digestion Start Date: 25-FEB-10 20:05

Digestion End Date: 25-FEB-10 20:35

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
28-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
952945	See Below		

Potentially affected work order(s)(SDG): 246837(10-1747),246870(10-1782)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202042557MS 2. Failed RPD for DUP: QC 1202042555DUP 3. Failed Recovery for MSD/PSD: QC 1202042558MSD	1.The matrix spike recovery failed outside of the control limits for aluminum and magnesium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2.The sample and sample duplicate % RPD failed outside the control limits for antimony,cadmium,chromium,copper and vanadium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3.The matrix spike duplicate recovery failed outside of the control limits for aluminum due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Louise Smith 01-MAR-10

Data Validator/Group Leader:

Christopher Louviere 02-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
11-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
963319	See Below		

Potentially affected work order(s)(SDG): 246837(10-1747),246870(10-1782)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202042563MS 2. Failed RPD for DUP: QC 1202042561DUP	The matrix spike failed outside of the control limits for Ni. The sample and sample duplicate % RPD failed outside the control limits for Ni. These failures were due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Paul Boyd 11-MAR-10

Data Validator/Group Leader:

Samantha Jacobs 11-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 01-MAR-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Standard Logbook

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I

Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-MAR-10 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Standard Logbook

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100225-01 **Opened:** 25-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 25-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 26-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100225-02 **Opened:** 25-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 25-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 26-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100225-07 **Opened:** 25-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 25-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 01-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100225-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG100225-08 **Opened:** 25-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 25-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 01-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100225-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100225-09 **Opened:** 25-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 25-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 01-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100225-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100225-10 **Opened:** 25-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 25-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 01-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100225-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100225-11 **Opened:** 25-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 25-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 01-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100225-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG100225-12 **Opened:** 25-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 25-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 01-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100225-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100225-14 **Opened:** 25-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 25-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 01-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100227-42 **Opened:** 27-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 27-FEB-10 **Pipet Id :** 3581809
Type: Working **Expires:** 28-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100227-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100227-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100227-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100227-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100227-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100227-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100227-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100227-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100227-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100227-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100227-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100227-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100227-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100227-43 **Opened:** 27-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 27-FEB-10 **Pipet Id :** 3581809
Type: Working **Expires:** 28-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100227-44 **Opened:** 27-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 27-FEB-10 **Pipet Id :** 3581809
Type: Working **Expires:** 28-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1272839
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100227-45 **Opened:** 27-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 27-FEB-10 **Pipet Id :** 3581809
Type: Working **Expires:** 28-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100227-46 **Opened:** 27-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 27-FEB-10 **Pipet Id :** 3581809
Type: Working **Expires:** 28-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1272839
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100227-47 **Opened:** 27-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 27-FEB-10 **Pipet Id :** 3581809
Type: Working **Expires:** 28-FEB-10 **Solvent :** 3%HCL &1%HNO3-1272839
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100308-04 **Opened:** 08-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 08-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 09-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1281622
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100308-04A **Opened:** 08-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 08-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 09-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100308-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100308-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100308-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100308-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100308-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100308-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100308-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100308-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100308-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100308-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100308-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100308-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100308-05 **Opened:** 08-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 08-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 09-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1281622
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100308-06 **Opened:** 08-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 08-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 09-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1281622
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100308-07 **Opened:** 08-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 08-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 09-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1281622
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100308-08 **Opened:** 08-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 08-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 09-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1281622
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100310-04 **Opened:** 10-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 10-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 11-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1281622
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100310-04A **Opened:** 10-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 10-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 11-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100310-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100310-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100310-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100310-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100310-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100310-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100310-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100310-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100310-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100310-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100310-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100310-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100310-05 **Opened:** 10-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 10-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 11-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1281622
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100310-06 **Opened:** 10-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 10-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 11-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1281622
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100310-07 **Opened:** 10-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 10-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 11-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1281622
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100310-08 **Opened:** 10-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 10-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 11-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1281622
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1268732 **Opened:** 11-FEB-10 **Lot Number :** H12022 L
Name: I-HNO3 **Received:** 11-FEB-10
Type: Reagent/Solvent **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1272839 **Opened:** 22-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 12-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 28-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Standard Logbook

Serial ID: 1274394-A **Opened:** 24-FEB-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 01-MAR-10
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1274397-C **Opened:** 24-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1277919 **Opened:** 02-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 02-MAR-10
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1281622 **Opened:** 08-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 08-MAR-10
Type: Reagent/Solvent **Expires:** 15-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1747-1

Sample Analysis

Sample ID	**Client ID**
246838001	RE15-10-8085
1202042566	Method Blank (MB) **ICP**
1202042567	Laboratory Control Sample (LCS)
1202042570	246882001(RE46-10-12762L) Serial Dilution (SD)
1202042568	246882001(RE46-10-12762D) Sample Duplicate (DUP)
1202042569	246882001(RE46-10-12762S) Matrix Spike (MS)
1202042571	Method Blank (MB) **ICP-MS**
1202042572	Laboratory Control Sample (LCS)
1202042575	246882001(RE46-10-12762L) Serial Dilution (SD)
1202042573	246882001(RE46-10-12762D) Sample Duplicate (DUP)
1202042574	246882001(RE46-10-12762S) Matrix Spike (MS)
1202045611	Method Blank (MB) **CVAA**
1202045612	Laboratory Control Sample (LCS)
1202045615	246860001(RE16-10-3221L) Serial Dilution (SD)
1202045613	246860001(RE16-10-3221D) Sample Duplicate (DUP)
1202045614	246860001(RE16-10-3221S) Matrix Spike (MS)

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

Method/Analysis Information

Analytical Batch: 952949, 952951 and 954258

Prep Batch :	952948, 952950 and 954255
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

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

Calibration Information

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

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exceptions of iron and magnesium, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria for all applicable analytes with the exception of thallium; however, all sample results were less than the MDL.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 246882001 (RE46-10-12762) and 246860001 (RE16-10-3221).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

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

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

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

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Kristen Parson **Date:** 3/11/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1747-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246838001 **BASIS:** As Received **DATE COLLECTED** 08-FEB-10

CLIENT ID: RE15-10-8085 **LEVEL:** Low **DATE RECEIVED** 11-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	75.4	ug/L	J	68	200	200	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/07/10 07:10	100306-4	952951
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/07/10 07:10	100306-4	952951
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/07/10 07:10	100306-4	952951
7440-70-2	Calcium	70.9	ug/L	J	50	200	200	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-50-8	Copper	4.17	ug/L	J	3	10	10	1	P	HSC	03/10/10 11:10	030910-2	952949
7439-89-6	Iron	49.9	ug/L	J	30	100	100	1	P	HSC	03/10/10 11:10	030910-2	952949
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	03/07/10 09:53	100306-3	952951
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/10/10 11:10	030910-2	952949
7439-96-5	Manganese	1.92	ug/L	J	1	5	5	1	MS	BAJ	03/07/10 07:10	100306-4	952951
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/18/10 12:26	021810W1-9	954258
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-09-7	Potassium	203	ug/L		50	150	150	1	P	HSC	03/10/10 11:10	030910-2	952949
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-23-5	Sodium	235	ug/L	J	100	300	300	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	03/07/10 07:10	100306-4	952951
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	03/07/10 10:28	100306-8	952951
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/10/10 11:10	030910-2	952949
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/05/10 04:09	030410-1	952949

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
952949	952948	SW846 3005A	50	mL	50	mL	02/22/10	AXG2
952951	952950	SW846 3005A	50	mL	50	mL	02/22/10	AXG2
954258	954255	SW846 7470A Prep	20	mL	20	mL	02/17/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.07	ug/L	5	ug/L	101.5	90.0 - 110.0	AV	18-FEB-10 09:12	021810W1-9
	Zinc	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	04-MAR-10 15:39	030410-1
	Antimony	51.7	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	07-MAR-10 03:37	100306-4
	Beryllium	53.5	ug/L	50	ug/L	106.9	90.0 - 110.0	MS	07-MAR-10 03:37	100306-4
	Cadmium	52.4	ug/L	50	ug/L	104.8	90.0 - 110.0	MS	07-MAR-10 03:37	100306-4
	Manganese	53.6	ug/L	50	ug/L	107.3	90.0 - 110.0	MS	07-MAR-10 03:37	100306-4
	Thallium	53.5	ug/L	50	ug/L	106.9	90.0 - 110.0	MS	07-MAR-10 03:37	100306-4
	Lead	51	ug/L	50	ug/L	101.9	90.0 - 110.0	MS	07-MAR-10 09:03	100306-3
	Uranium	53.9	ug/L	50	ug/L	107.9	90.0 - 110.0	MS	07-MAR-10 09:12	100306-8
	Aluminum	5120	ug/L	5000	ug/L	102.4	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Arsenic	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Barium	523	ug/L	500	ug/L	104.6	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Calcium	5230	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Chromium	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Cobalt	529	ug/L	500	ug/L	105.8	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Copper	520	ug/L	500	ug/L	103.9	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Iron	5280	ug/L	5000	ug/L	105.5	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Magnesium	5460	ug/L	5000	ug/L	109.2	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Nickel	521	ug/L	500	ug/L	104.3	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Potassium	2570	ug/L	2500	ug/L	102.9	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Selenium	2650	ug/L	2500	ug/L	106.2	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Silver	266	ug/L	250	ug/L	106.3	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Sodium	2480	ug/L	2500	ug/L	99.1	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
	Vanadium	525	ug/L	500	ug/L	105.1	90.0 - 110.0	P	09-MAR-10 14:54	030910-2
CCV01										
	Mercury	4.93	ug/L	5	ug/L	98.6	80.0 - 120.0	AV	18-FEB-10 09:17	021810W1-9
	Zinc	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	04-MAR-10 16:39	030410-1
	Antimony	45.9	ug/L	50	ug/L	91.7	90.0 - 110.0	MS	07-MAR-10 04:03	100306-4
	Beryllium	46.9	ug/L	50	ug/L	93.8	90.0 - 110.0	MS	07-MAR-10 04:03	100306-4
	Cadmium	45.3	ug/L	50	ug/L	90.6	90.0 - 110.0	MS	07-MAR-10 04:03	100306-4

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	47.4	ug/L	50	ug/L	94.7	90.0 - 110.0	MS	07-MAR-10 04:03	100306-4
	Thallium	46.1	ug/L	50	ug/L	92.2	90.0 - 110.0	MS	07-MAR-10 04:03	100306-4
	Lead	52.2	ug/L	50	ug/L	104.3	90.0 - 110.0	MS	07-MAR-10 09:12	100306-3
	Uranium	54.5	ug/L	50	ug/L	109.1	90.0 - 110.0	MS	07-MAR-10 09:20	100306-8
	Aluminum	5100	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Arsenic	522	ug/L	500	ug/L	104.4	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Barium	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Chromium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Copper	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Iron	5230	ug/L	5000	ug/L	104.6	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Nickel	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Potassium	5330	ug/L	5000	ug/L	106.6	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Selenium	517	ug/L	500	ug/L	103.3	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Silver	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Sodium	10800	ug/L	10000	ug/L	108.5	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	09-MAR-10 15:42	030910-2
CCV02										
	Mercury	4.9	ug/L	5	ug/L	98	80.0 - 120.0	AV	18-FEB-10 09:40	021810W1-9
	Zinc	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	04-MAR-10 17:00	030410-1
	Antimony	49.5	ug/L	50	ug/L	99.1	90.0 - 110.0	MS	07-MAR-10 04:46	100306-4
	Beryllium	50.3	ug/L	50	ug/L	100.5	90.0 - 110.0	MS	07-MAR-10 04:46	100306-4
	Cadmium	49.4	ug/L	50	ug/L	98.8	90.0 - 110.0	MS	07-MAR-10 04:46	100306-4
	Manganese	51	ug/L	50	ug/L	102	90.0 - 110.0	MS	07-MAR-10 04:46	100306-4
	Thallium	50.1	ug/L	50	ug/L	100.2	90.0 - 110.0	MS	07-MAR-10 04:46	100306-4
	Lead	51	ug/L	50	ug/L	102	90.0 - 110.0	MS	07-MAR-10 09:28	100306-3
	Uranium	54.6	ug/L	50	ug/L	109.2	90.0 - 110.0	MS	07-MAR-10 09:36	100306-8
	Aluminum	4960	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	09-MAR-10 15:58	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Barium	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Chromium	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Cobalt	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Copper	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Iron	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Nickel	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Potassium	5140	ug/L	5000	ug/L	102.8	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Selenium	519	ug/L	500	ug/L	103.8	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Silver	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
	Vanadium	502	ug/L	500	ug/L	100.3	90.0 - 110.0	P	09-MAR-10 15:58	030910-2
CCV03										
	Mercury	5.07	ug/L	5	ug/L	101.3	80.0 - 120.0	AV	18-FEB-10 10:03	021810W1-9
	Zinc	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	04-MAR-10 18:00	030410-1
	Antimony	51.7	ug/L	50	ug/L	103.3	90.0 - 110.0	MS	07-MAR-10 05:39	100306-4
	Beryllium	53.5	ug/L	50	ug/L	107	90.0 - 110.0	MS	07-MAR-10 05:39	100306-4
	Cadmium	51.4	ug/L	50	ug/L	102.8	90.0 - 110.0	MS	07-MAR-10 05:39	100306-4
	Manganese	52.9	ug/L	50	ug/L	105.7	90.0 - 110.0	MS	07-MAR-10 05:39	100306-4
	Thallium	47.3	ug/L	50	ug/L	94.5	90.0 - 110.0	MS	07-MAR-10 05:39	100306-4
	Lead	50.9	ug/L	50	ug/L	101.8	90.0 - 110.0	MS	07-MAR-10 09:46	100306-3
	Uranium	54.2	ug/L	50	ug/L	108.3	90.0 - 110.0	MS	07-MAR-10 09:51	100306-8
	Aluminum	5030	ug/L	5000	ug/L	100.5	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Arsenic	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Barium	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Chromium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Cobalt	510	ug/L	500	ug/L	102	90.0 - 110.0	P	09-MAR-10 16:20	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Magnesium	5160	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Nickel	509	ug/L	500	ug/L	101.7	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Potassium	4990	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Selenium	518	ug/L	500	ug/L	103.5	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Silver	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Sodium	10400	ug/L	10000	ug/L	103.7	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 - 110.0	P	09-MAR-10 16:20	030910-2
CCV04										
	Mercury	5.05	ug/L	5	ug/L	100.9	80.0 - 120.0	AV	18-FEB-10 10:27	021810W1-9
	Zinc	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	04-MAR-10 18:29	030410-1
	Antimony	47.1	ug/L	50	ug/L	94.2	90.0 - 110.0	MS	07-MAR-10 06:33	100306-4
	Beryllium	48.2	ug/L	50	ug/L	96.4	90.0 - 110.0	MS	07-MAR-10 06:33	100306-4
	Cadmium	46.8	ug/L	50	ug/L	93.6	90.0 - 110.0	MS	07-MAR-10 06:33	100306-4
	Manganese	48.2	ug/L	50	ug/L	96.4	90.0 - 110.0	MS	07-MAR-10 06:33	100306-4
	Thallium	46.1	ug/L	50	ug/L	92.2	90.0 - 110.0	MS	07-MAR-10 06:33	100306-4
	Uranium	48.4	ug/L	50	ug/L	96.7	90.0 - 110.0	MS	07-MAR-10 10:03	100306-8
	Lead	51	ug/L	50	ug/L	102	90.0 - 110.0	MS	07-MAR-10 10:04	100306-3
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Arsenic	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Barium	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Chromium	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Cobalt	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Copper	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Iron	5150	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Magnesium	5250	ug/L	5000	ug/L	105.1	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Nickel	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Potassium	4990	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	09-MAR-10 17:24	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Silver	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	09-MAR-10 17:24	030910-2
CCV05										
	Mercury	5.03	ug/L	5	ug/L	100.7	80.0 - 120.0	AV	18-FEB-10 10:50	021810W1-9
	Zinc	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	04-MAR-10 19:43	030410-1
	Antimony	51.8	ug/L	50	ug/L	103.6	90.0 - 110.0	MS	07-MAR-10 07:27	100306-4
	Beryllium	53.6	ug/L	50	ug/L	107.1	90.0 - 110.0	MS	07-MAR-10 07:27	100306-4
	Cadmium	50.9	ug/L	50	ug/L	101.9	90.0 - 110.0	MS	07-MAR-10 07:27	100306-4
	Manganese	53.1	ug/L	50	ug/L	106.2	90.0 - 110.0	MS	07-MAR-10 07:27	100306-4
	Thallium	50	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	07-MAR-10 07:27	100306-4
	Uranium	53	ug/L	50	ug/L	105.9	90.0 - 110.0	MS	07-MAR-10 10:22	100306-8
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Arsenic	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Barium	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Chromium	495	ug/L	500	ug/L	99	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Cobalt	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Copper	490	ug/L	500	ug/L	98	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Iron	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Nickel	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Potassium	4950	ug/L	5000	ug/L	99	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Selenium	516	ug/L	500	ug/L	103.3	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Silver	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	09-MAR-10 17:45	030910-2
CCV06										
	Mercury	5.23	ug/L	5	ug/L	104.5	80.0 - 120.0	AV	18-FEB-10 11:13	021810W1-9

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	04-MAR-10 20:45	030410-1
	Uranium	54.6	ug/L	50	ug/L	109.3	90.0 - 110.0	MS	07-MAR-10 10:38	100306-8
	Aluminum	5200	ug/L	5000	ug/L	104	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Arsenic	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Barium	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Chromium	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Copper	495	ug/L	500	ug/L	99	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Iron	5300	ug/L	5000	ug/L	105.9	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Magnesium	5280	ug/L	5000	ug/L	105.6	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Nickel	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Potassium	4920	ug/L	5000	ug/L	98.4	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Selenium	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Silver	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Sodium	11200	ug/L	10000	ug/L	111.6	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	09-MAR-10 19:10	030910-2
CCV07										
	Mercury	5.34	ug/L	5	ug/L	106.8	80.0 - 120.0	AV	18-FEB-10 11:36	021810W1-9
	Zinc	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	04-MAR-10 21:48	030410-1
	Aluminum	5120	ug/L	5000	ug/L	102.3	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Arsenic	505	ug/L	500	ug/L	101	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Barium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Calcium	5150	ug/L	5000	ug/L	102.9	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Chromium	506	ug/L	500	ug/L	101.1	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Cobalt	516	ug/L	500	ug/L	103.1	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Copper	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Iron	5240	ug/L	5000	ug/L	104.8	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Magnesium	5370	ug/L	5000	ug/L	107.5	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Nickel	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	09-MAR-10 20:21	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5020	ug/L	5000	ug/L	100.5	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Selenium	525	ug/L	500	ug/L	105.1	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Silver	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Sodium	10600	ug/L	10000	ug/L	106.1	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
	Vanadium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	09-MAR-10 20:21	030910-2
CCV08										
	Mercury	4.38	ug/L	5	ug/L	87.6	80.0 - 120.0	AV	18-FEB-10 11:59	021810W1-9
	Zinc	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	04-MAR-10 22:43	030410-1
	Aluminum	4850	ug/L	5000	ug/L	96.9	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Arsenic	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Barium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Calcium	5010	ug/L	5000	ug/L	100.2	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Chromium	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Cobalt	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Copper	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Iron	5000	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Magnesium	5120	ug/L	5000	ug/L	102.3	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Nickel	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Potassium	4900	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Selenium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Silver	500	ug/L	500	ug/L	100	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Sodium	9550	ug/L	10000	ug/L	95.5	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
	Vanadium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	09-MAR-10 21:24	030910-2
CCV09										
	Mercury	4.99	ug/L	5	ug/L	99.8	80.0 - 120.0	AV	18-FEB-10 12:08	021810W1-9
	Zinc	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	04-MAR-10 23:44	030410-1
	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Arsenic	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Barium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Calcium	5260	ug/L	5000	ug/L	105.2	90.0 - 110.0	P	09-MAR-10 22:27	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Cobalt	517	ug/L	500	ug/L	103.4	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Copper	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Iron	5300	ug/L	5000	ug/L	106	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Magnesium	5360	ug/L	5000	ug/L	107.2	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Nickel	514	ug/L	500	ug/L	102.9	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Selenium	517	ug/L	500	ug/L	103.4	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Silver	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Sodium	9710	ug/L	10000	ug/L	97.2	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	09-MAR-10 22:27	030910-2
CCV10										
	Mercury	4.69	ug/L	5	ug/L	93.7	80.0 - 120.0	AV	18-FEB-10 12:32	021810W1-9
	Zinc	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	05-MAR-10 00:47	030410-1
	Aluminum	5000	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Arsenic	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Barium	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Calcium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Chromium	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Cobalt	511	ug/L	500	ug/L	102.3	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Copper	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Iron	5090	ug/L	5000	ug/L	101.8	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Magnesium	5230	ug/L	5000	ug/L	104.7	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Nickel	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Selenium	524	ug/L	500	ug/L	104.7	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Silver	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 - 110.0	P	09-MAR-10 23:16	030910-2
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	09-MAR-10 23:16	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV11										
	Mercury	4.19	ug/L	5	ug/L	83.8	80.0 - 120.0	AV	18-FEB-10 12:55	021810W1-9
	Zinc	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	05-MAR-10 01:29	030410-1
	Aluminum	5200	ug/L	5000	ug/L	104	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Arsenic	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Barium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Calcium	5230	ug/L	5000	ug/L	104.6	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Chromium	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Cobalt	506	ug/L	500	ug/L	101.1	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Copper	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Iron	5330	ug/L	5000	ug/L	106.6	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Magnesium	5560	ug/L	5000	ug/L	111.3	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Nickel	504	ug/L	500	ug/L	100.7	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Potassium	5180	ug/L	5000	ug/L	103.6	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Selenium	514	ug/L	500	ug/L	102.7	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Silver	500	ug/L	500	ug/L	100	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Sodium	10500	ug/L	10000	ug/L	104.7	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
	Vanadium	502	ug/L	500	ug/L	100.3	90.0 - 110.0	P	10-MAR-10 00:27	030910-2
CCV12										
	Zinc	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	05-MAR-10 02:31	030410-1
	Aluminum	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Arsenic	505	ug/L	500	ug/L	101	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Barium	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Calcium	5270	ug/L	5000	ug/L	105.4	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Chromium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Copper	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Iron	5320	ug/L	5000	ug/L	106.4	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Nickel	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Potassium	5080	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	10-MAR-10 01:31	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	520	ug/L	500	ug/L	104	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Silver	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
	Vanadium	508	ug/L	500	ug/L	101.5	90.0 - 110.0	P	10-MAR-10 01:31	030910-2
CCV13										
	Zinc	516	ug/L	500	ug/L	103.3	90.0 - 110.0	P	05-MAR-10 03:41	030410-1
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Arsenic	512	ug/L	500	ug/L	102.5	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Barium	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Calcium	5220	ug/L	5000	ug/L	104.3	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Chromium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Cobalt	522	ug/L	500	ug/L	104.3	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Copper	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Iron	5250	ug/L	5000	ug/L	105	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Nickel	519	ug/L	500	ug/L	103.7	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Potassium	5030	ug/L	5000	ug/L	100.6	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Selenium	531	ug/L	500	ug/L	106.3	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Silver	515	ug/L	500	ug/L	103	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Sodium	9600	ug/L	10000	ug/L	96	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
	Vanadium	516	ug/L	500	ug/L	103.3	90.0 - 110.0	P	10-MAR-10 02:35	030910-2
CCV14										
	Zinc	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	05-MAR-10 04:49	030410-1
	Aluminum	5170	ug/L	5000	ug/L	103.4	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Arsenic	522	ug/L	500	ug/L	104.3	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Barium	530	ug/L	500	ug/L	105.9	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Calcium	5400	ug/L	5000	ug/L	108	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Chromium	529	ug/L	500	ug/L	105.8	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Cobalt	539	ug/L	500	ug/L	107.8	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Copper	532	ug/L	500	ug/L	106.4	90.0 - 110.0	P	10-MAR-10 03:54	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5430	ug/L	5000	ug/L	108.7	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Magnesium	5480	ug/L	5000	ug/L	109.6	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Nickel	536	ug/L	500	ug/L	107.2	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Potassium	5310	ug/L	5000	ug/L	106.2	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Selenium	542	ug/L	500	ug/L	108.4	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Silver	534	ug/L	500	ug/L	106.8	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Sodium	10000	ug/L	10000	ug/L	100.3	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
	Vanadium	536	ug/L	500	ug/L	107.2	90.0 - 110.0	P	10-MAR-10 03:54	030910-2
CCV15										
	Aluminum	5130	ug/L	5000	ug/L	102.5	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Arsenic	516	ug/L	500	ug/L	103.1	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Barium	517	ug/L	500	ug/L	103.4	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Calcium	5260	ug/L	5000	ug/L	105.2	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Chromium	517	ug/L	500	ug/L	103.4	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Cobalt	525	ug/L	500	ug/L	105.1	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Copper	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Iron	5350	ug/L	5000	ug/L	107	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Magnesium	5550	ug/L	5000	ug/L	111.1	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Nickel	524	ug/L	500	ug/L	104.8	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Potassium	5150	ug/L	5000	ug/L	103	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Selenium	533	ug/L	500	ug/L	106.7	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Silver	521	ug/L	500	ug/L	104.3	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Sodium	10300	ug/L	10000	ug/L	102.8	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
	Vanadium	524	ug/L	500	ug/L	104.7	90.0 - 110.0	P	10-MAR-10 05:06	030910-2
CCV16										
	Aluminum	4720	ug/L	5000	ug/L	94.3	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Arsenic	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Barium	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Chromium	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	10-MAR-10 06:31	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Copper	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Nickel	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Selenium	504	ug/L	500	ug/L	100.7	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Silver	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Sodium	9220	ug/L	10000	ug/L	92.2	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	10-MAR-10 06:31	030910-2
CCV17										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Arsenic	509	ug/L	500	ug/L	101.7	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Barium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Chromium	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Cobalt	519	ug/L	500	ug/L	103.7	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Copper	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Iron	5130	ug/L	5000	ug/L	102.7	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Magnesium	5240	ug/L	5000	ug/L	104.9	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Nickel	518	ug/L	500	ug/L	103.7	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Potassium	4990	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Selenium	531	ug/L	500	ug/L	106.3	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Silver	514	ug/L	500	ug/L	102.9	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Sodium	9800	ug/L	10000	ug/L	98	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
	Vanadium	517	ug/L	500	ug/L	103.3	90.0 - 110.0	P	10-MAR-10 07:55	030910-2
CCV18										
	Aluminum	5030	ug/L	5000	ug/L	100.5	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Arsenic	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Barium	500	ug/L	500	ug/L	99.9	90.0 - 110.0	P	10-MAR-10 08:51	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Chromium	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Cobalt	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Copper	495	ug/L	500	ug/L	99	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Iron	5090	ug/L	5000	ug/L	101.8	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Nickel	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Potassium	4960	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Selenium	519	ug/L	500	ug/L	103.9	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Silver	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Sodium	10400	ug/L	10000	ug/L	103.5	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	10-MAR-10 08:51	030910-2
CCV19										
	Aluminum	4990	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Arsenic	505	ug/L	500	ug/L	101	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Barium	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Chromium	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Cobalt	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Copper	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Iron	5130	ug/L	5000	ug/L	102.7	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Nickel	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Potassium	4930	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Selenium	525	ug/L	500	ug/L	104.9	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Silver	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
	Vanadium	508	ug/L	500	ug/L	101.5	90.0 - 110.0	P	10-MAR-10 09:55	030910-2
CCV20										
	Aluminum	4950	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	10-MAR-10 10:38	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Barium	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Calcium	5010	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Chromium	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Cobalt	505	ug/L	500	ug/L	101	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Copper	495	ug/L	500	ug/L	99	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Iron	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Magnesium	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Nickel	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Potassium	4880	ug/L	5000	ug/L	97.6	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Selenium	516	ug/L	500	ug/L	103.3	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Silver	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Sodium	10100	ug/L	10000	ug/L	101.1	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	10-MAR-10 10:38	030910-2
CCV21										
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Arsenic	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Barium	495	ug/L	500	ug/L	99	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Chromium	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Cobalt	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Copper	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Iron	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Magnesium	5080	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Nickel	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Potassium	4910	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Selenium	519	ug/L	500	ug/L	103.8	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Silver	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 - 110.0	P	10-MAR-10 11:38	030910-2
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	10-MAR-10 11:38	030910-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1747-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV22										
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Arsenic	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Barium	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Chromium	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Cobalt	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Copper	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Iron	5110	ug/L	5000	ug/L	102.3	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Magnesium	5100	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Nickel	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Potassium	4840	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Selenium	519	ug/L	500	ug/L	103.9	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Silver	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Sodium	10400	ug/L	10000	ug/L	103.6	90.0 - 110.0	P	10-MAR-10 12:43	030910-2
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	10-MAR-10 12:43	030910-2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1747–1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.196	ug/L	.2	ug/L	98	70.0 – 130.0	AV	18–FEB–10 09:15	021810W1–9
	Manganese	5.75	ug/L	5	ug/L	114.9	70.0 – 130.0	MS	07–MAR–10 03:47	100306–4
	Antimony	3.06	ug/L	3	ug/L	102	70.0 – 130.0	MS	07–MAR–10 03:47	100306–4
	Beryllium	.562	ug/L	.5	ug/L	112.4	70.0 – 130.0	MS	07–MAR–10 03:47	100306–4
	Thallium	1.27	ug/L	1	ug/L	127.1	70.0 – 130.0	MS	07–MAR–10 03:47	100306–4
	Cadmium	1.08	ug/L	1	ug/L	108.1	70.0 – 130.0	MS	07–MAR–10 03:47	100306–4
	Lead	2.57	ug/L	2	ug/L	128.3	70.0 – 130.0	MS	07–MAR–10 09:06	100306–3
	Uranium	.244	ug/L	.2	ug/L	122	70.0 – 130.0	MS	07–MAR–10 09:15	100306–8
PQL01										
	Zinc	9.17	ug/L	10	ug/L	91.7	70.0 – 130.0	P	04–MAR–10 15:53	030410–1
	Cobalt	5.25	ug/L	5	ug/L	105.1	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Aluminum	187	ug/L	200	ug/L	93.7	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Iron	69.3	ug/L	100	ug/L	69.3	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Nickel	5.27	ug/L	5	ug/L	105.4	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Silver	5.01	ug/L	5	ug/L	100.1	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Arsenic	24.2	ug/L	30	ug/L	80.6	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Chromium	5.1	ug/L	5	ug/L	102.1	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Selenium	35.1	ug/L	30	ug/L	116.9	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Calcium	193	ug/L	200	ug/L	96.6	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Barium	5.17	ug/L	5	ug/L	103.4	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Sodium	305	ug/L	300	ug/L	101.7	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Potassium	129	ug/L	150	ug/L	85.8	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Magnesium	418	ug/L	300	ug/L	139.2	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Copper	10.1	ug/L	10	ug/L	101.2	70.0 – 130.0	P	09–MAR–10 15:08	030910–2
	Vanadium	5.38	ug/L	5	ug/L	107.7	70.0 – 130.0	P	09–MAR–10 15:08	030910–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 09:13	021810W1-9
	Zinc	3.76	+/-10	B	3.3	10.0	LIQ	P	04-MAR-10 15:46	030410-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	07-MAR-10 03:42	100306-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	07-MAR-10 03:42	100306-4
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	07-MAR-10 03:42	100306-4
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	07-MAR-10 03:42	100306-4
	Thallium	0.326	+/-1	B	0.3	1.0	LIQ	MS	07-MAR-10 03:42	100306-4
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	07-MAR-10 09:05	100306-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	07-MAR-10 09:13	100306-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 15:01	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 15:01	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 15:01	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 15:01	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 15:01	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 15:01	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 15:01	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	09-MAR-10 15:01	030910-2
	Magnesium	200.44	+/-300	B	85.0	300	LIQ	P	09-MAR-10 15:01	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	09-MAR-10 15:01	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	09-MAR-10 15:01	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 15:01	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 15:01	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 15:01	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 15:01	030910-2
CCB01										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 09:19	021810W1-9
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-MAR-10 16:46	030410-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	07-MAR-10 04:09	100306-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	07-MAR-10 04:09	100306-4
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	07-MAR-10 04:09	100306-4
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	07-MAR-10 04:09	100306-4

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	07-MAR-10 04:09	100306-4
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	07-MAR-10 09:14	100306-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	07-MAR-10 09:22	100306-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 15:49	030910-2
	Arsenic	8.38	+/-30	B	5.0	30.0	LIQ	P	09-MAR-10 15:49	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 15:49	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 15:49	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 15:49	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 15:49	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 15:49	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	09-MAR-10 15:49	030910-2
	Magnesium	243.89	+/-300	B	85.0	300	LIQ	P	09-MAR-10 15:49	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	09-MAR-10 15:49	030910-2
	Potassium	193.36	+/-150		50.0	150	LIQ	P	09-MAR-10 15:49	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 15:49	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 15:49	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 15:49	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 15:49	030910-2
CCB02										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 09:42	021810W1-9
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-MAR-10 17:07	030410-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	07-MAR-10 04:52	100306-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	07-MAR-10 04:52	100306-4
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	07-MAR-10 04:52	100306-4
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	07-MAR-10 04:52	100306-4
	Thallium	0.516	+/-1	B	0.3	1.0	LIQ	MS	07-MAR-10 04:52	100306-4
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	07-MAR-10 09:29	100306-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	07-MAR-10 09:38	100306-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 16:05	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 16:05	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 16:05	030910-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 16:05	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 16:05	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 16:05	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 16:05	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	09-MAR-10 16:05	030910-2
	Magnesium	191	+/-300	B	85.0	300	LIQ	P	09-MAR-10 16:05	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	09-MAR-10 16:05	030910-2
	Potassium	77.86	+/-150	B	50.0	150	LIQ	P	09-MAR-10 16:05	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 16:05	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 16:05	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 16:05	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 16:05	030910-2
CCB03										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 10:05	021810W1-9
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-MAR-10 18:07	030410-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	07-MAR-10 05:45	100306-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	07-MAR-10 05:45	100306-4
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	07-MAR-10 05:45	100306-4
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	07-MAR-10 05:45	100306-4
	Thallium	1.78	+/-1		0.3	1.0	LIQ	MS	07-MAR-10 05:45	100306-4
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	07-MAR-10 09:48	100306-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	07-MAR-10 09:53	100306-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 16:27	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 16:27	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 16:27	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 16:27	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 16:27	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 16:27	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 16:27	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	09-MAR-10 16:27	030910-2
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	09-MAR-10 16:27	030910-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	09-MAR-10 16:27	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	09-MAR-10 16:27	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 16:27	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 16:27	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 16:27	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 16:27	030910-2
CCB04										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 10:28	021810W1-9
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-MAR-10 18:36	030410-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	07-MAR-10 06:38	100306-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	07-MAR-10 06:38	100306-4
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	07-MAR-10 06:38	100306-4
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	07-MAR-10 06:38	100306-4
	Thallium	1.04	+/-1		0.3	1.0	LIQ	MS	07-MAR-10 06:38	100306-4
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	07-MAR-10 10:05	100306-8
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	07-MAR-10 10:06	100306-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 17:31	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 17:31	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 17:31	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 17:31	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 17:31	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 17:31	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 17:31	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	09-MAR-10 17:31	030910-2
	Magnesium	276.09	+/-300	B	85.0	300	LIQ	P	09-MAR-10 17:31	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	09-MAR-10 17:31	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	09-MAR-10 17:31	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 17:31	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 17:31	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 17:31	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 17:31	030910-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 10:52	021810W1-9
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-MAR-10 19:50	030410-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	07-MAR-10 07:33	100306-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	07-MAR-10 07:33	100306-4
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	07-MAR-10 07:33	100306-4
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	07-MAR-10 07:33	100306-4
	Thallium	0.581	+/-1	B	0.3	1.0	LIQ	MS	07-MAR-10 07:33	100306-4
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	07-MAR-10 10:23	100306-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 17:52	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 17:52	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 17:52	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 17:52	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 17:52	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 17:52	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 17:52	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	09-MAR-10 17:52	030910-2
	Magnesium	136.5	+/-300	B	85.0	300	LIQ	P	09-MAR-10 17:52	030910-2
	Nickel	1.59	+/-5	B	1.5	5.0	LIQ	P	09-MAR-10 17:52	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	09-MAR-10 17:52	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 17:52	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 17:52	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 17:52	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 17:52	030910-2
CCB06										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 11:15	021810W1-9
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-MAR-10 20:52	030410-1
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	07-MAR-10 10:40	100306-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 19:17	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 19:17	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 19:17	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 19:17	030910-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 19:17	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 19:17	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 19:17	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	09-MAR-10 19:17	030910-2
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	09-MAR-10 19:17	030910-2
	Nickel	1.51	+/-5	B	1.5	5.0	LIQ	P	09-MAR-10 19:17	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	09-MAR-10 19:17	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 19:17	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 19:17	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 19:17	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 19:17	030910-2
CCB07										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 11:38	021810W1-9
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-MAR-10 21:55	030410-1
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 20:28	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 20:28	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 20:28	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 20:28	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 20:28	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 20:28	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 20:28	030910-2
	Iron	44.21	+/-100	B	30.0	100	LIQ	P	09-MAR-10 20:28	030910-2
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	09-MAR-10 20:28	030910-2
	Nickel	1.63	+/-5	B	1.5	5.0	LIQ	P	09-MAR-10 20:28	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	09-MAR-10 20:28	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 20:28	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 20:28	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 20:28	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 20:28	030910-2
CCB08										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 12:01	021810W1-9

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-MAR-10 22:49	030410-1
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 21:31	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 21:31	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 21:31	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 21:31	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 21:31	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 21:31	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 21:31	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	09-MAR-10 21:31	030910-2
	Magnesium	127.69	+/-300	B	85.0	300	LIQ	P	09-MAR-10 21:31	030910-2
	Nickel	1.6	+/-5	B	1.5	5.0	LIQ	P	09-MAR-10 21:31	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	09-MAR-10 21:31	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 21:31	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 21:31	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 21:31	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 21:31	030910-2
CCB09										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 12:10	021810W1-9
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-MAR-10 23:51	030410-1
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 22:34	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 22:34	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 22:34	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 22:34	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 22:34	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 22:34	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 22:34	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	09-MAR-10 22:34	030910-2
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	09-MAR-10 22:34	030910-2
	Nickel	1.55	+/-5	B	1.5	5.0	LIQ	P	09-MAR-10 22:34	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	09-MAR-10 22:34	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 22:34	030910-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 22:34	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 22:34	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 22:34	030910-2
CCB10										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 12:34	021810W1-9
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	05-MAR-10 00:54	030410-1
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	09-MAR-10 23:23	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 23:23	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 23:23	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	09-MAR-10 23:23	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 23:23	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 23:23	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	09-MAR-10 23:23	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	09-MAR-10 23:23	030910-2
	Magnesium	251.92	+/-300	B	85.0	300	LIQ	P	09-MAR-10 23:23	030910-2
	Nickel	1.74	+/-5	B	1.5	5.0	LIQ	P	09-MAR-10 23:23	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	09-MAR-10 23:23	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	09-MAR-10 23:23	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 23:23	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	09-MAR-10 23:23	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	09-MAR-10 23:23	030910-2
CCB11										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	18-FEB-10 12:57	021810W1-9
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	05-MAR-10 01:36	030410-1
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 00:34	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 00:34	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 00:34	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 00:34	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 00:34	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 00:34	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 00:34	030910-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 00:34	030910-2
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	10-MAR-10 00:34	030910-2
	Nickel	1.73	+/-5	B	1.5	5.0	LIQ	P	10-MAR-10 00:34	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	10-MAR-10 00:34	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 00:34	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 00:34	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 00:34	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 00:34	030910-2
CCB12										
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	05-MAR-10 02:38	030410-1
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 01:38	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 01:38	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 01:38	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 01:38	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 01:38	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 01:38	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 01:38	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 01:38	030910-2
	Magnesium	160.29	+/-300	B	85.0	300	LIQ	P	10-MAR-10 01:38	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 01:38	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	10-MAR-10 01:38	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 01:38	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 01:38	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 01:38	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 01:38	030910-2
CCB13										
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	05-MAR-10 03:48	030410-1
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 02:42	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 02:42	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 02:42	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 02:42	030910-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 02:42	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 02:42	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 02:42	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 02:42	030910-2
	Magnesium	123.1	+/-300	B	85.0	300	LIQ	P	10-MAR-10 02:42	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 02:42	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	10-MAR-10 02:42	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 02:42	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 02:42	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 02:42	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 02:42	030910-2
CCB14										
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	05-MAR-10 04:57	030410-1
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 04:01	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 04:01	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 04:01	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 04:01	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 04:01	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 04:01	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 04:01	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 04:01	030910-2
	Magnesium	140.13	+/-300	B	85.0	300	LIQ	P	10-MAR-10 04:01	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 04:01	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	10-MAR-10 04:01	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 04:01	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 04:01	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 04:01	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 04:01	030910-2
CCB15										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 05:13	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 05:13	030910-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 05:13	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 05:13	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 05:13	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 05:13	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 05:13	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 05:13	030910-2
	Magnesium	152.9	+/-300	B	85.0	300	LIQ	P	10-MAR-10 05:13	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 05:13	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	10-MAR-10 05:13	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 05:13	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 05:13	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 05:13	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 05:13	030910-2
CCB16										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 06:38	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 06:38	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 06:38	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 06:38	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 06:38	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 06:38	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 06:38	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 06:38	030910-2
	Magnesium	193.33	+/-300	B	85.0	300	LIQ	P	10-MAR-10 06:38	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 06:38	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	10-MAR-10 06:38	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 06:38	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 06:38	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 06:38	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 06:38	030910-2
CCB17										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 08:02	030910-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 08:02	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 08:02	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 08:02	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 08:02	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 08:02	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 08:02	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 08:02	030910-2
	Magnesium	204.1	+/-300	B	85.0	300	LIQ	P	10-MAR-10 08:02	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 08:02	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	10-MAR-10 08:02	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 08:02	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 08:02	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 08:02	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 08:02	030910-2
CCB18										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 08:58	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 08:58	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 08:58	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 08:58	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 08:58	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 08:58	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 08:58	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 08:58	030910-2
	Magnesium	216.7	+/-300	B	85.0	300	LIQ	P	10-MAR-10 08:58	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 08:58	030910-2
	Potassium	68.87	+/-150	B	50.0	150	LIQ	P	10-MAR-10 08:58	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 08:58	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 08:58	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 08:58	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 08:58	030910-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB19										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 10:02	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 10:02	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 10:02	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 10:02	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 10:02	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 10:02	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 10:02	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 10:02	030910-2
	Magnesium	261.9	+/-300	B	85.0	300	LIQ	P	10-MAR-10 10:02	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 10:02	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	10-MAR-10 10:02	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 10:02	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 10:02	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 10:02	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 10:02	030910-2
CCB20										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 10:45	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 10:45	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 10:45	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 10:45	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 10:45	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 10:45	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 10:45	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 10:45	030910-2
	Magnesium	128.98	+/-300	B	85.0	300	LIQ	P	10-MAR-10 10:45	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 10:45	030910-2
	Potassium	79.39	+/-150	B	50.0	150	LIQ	P	10-MAR-10 10:45	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 10:45	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 10:45	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 10:45	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 10:45	030910-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1747-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB21										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 11:46	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 11:46	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 11:46	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 11:46	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 11:46	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 11:46	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 11:46	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 11:46	030910-2
	Magnesium	136.23	+/-300	B	85.0	300	LIQ	P	10-MAR-10 11:46	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 11:46	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	10-MAR-10 11:46	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 11:46	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 11:46	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 11:46	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 11:46	030910-2
CCB22										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	10-MAR-10 12:50	030910-2
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 12:50	030910-2
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 12:50	030910-2
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	10-MAR-10 12:50	030910-2
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 12:50	030910-2
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 12:50	030910-2
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	10-MAR-10 12:50	030910-2
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	10-MAR-10 12:50	030910-2
	Magnesium	109.69	+/-300	B	85.0	300	LIQ	P	10-MAR-10 12:50	030910-2
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	10-MAR-10 12:50	030910-2
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	10-MAR-10 12:50	030910-2
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	10-MAR-10 12:50	030910-2
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 12:50	030910-2
	Sodium	100	+/-300	U	100	300	LIQ	P	10-MAR-10 12:50	030910-2
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	10-MAR-10 12:50	030910-2

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1747–1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202042566								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Arsenic	5	ug/L	+/–30	U	P	5	30
	Barium	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Chromium	1	ug/L	+/–5	U	P	1	5
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
	Selenium	5	ug/L	+/–30	U	P	5	30
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Sodium	112	ug/L	+/–300	J	P	100	300
	Silver	1	ug/L	+/–5	U	P	1	5
	Potassium	50	ug/L	+/–150	U	P	50	150
	Magnesium	108	ug/L	+/–300	J	P	85	300
	Iron	30	ug/L	+/–100	U	P	30	100
1202042571								
	Manganese	1	ug/L	+/–5	U	MS	1	5
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Antimony	1	ug/L	+/–3	U	MS	1	3
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202045611								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
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Interference Check Sample

SDG No: 10–1747–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Zinc	–0.282	ug/L					04–MAR–10 16:00	030410–1
ICSAB01									
	Zinc	500	ug/L	500	ug/L	100	80.0 – 120.0	04–MAR–10 16:07	030410–1

METALS
–4–
Interference Check Sample

SDG No: 10–1747–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	521000	ug/L	500000	ug/L	104	80.0 – 120.0	09–MAR–10 15:15	030910–2
	Arsenic	3.31	ug/L					09–MAR–10 15:15	030910–2
	Barium	1.1	ug/L					09–MAR–10 15:15	030910–2
	Calcium	483000	ug/L	500000	ug/L	96.5	80.0 – 120.0	09–MAR–10 15:15	030910–2
	Chromium	–4.63	ug/L					09–MAR–10 15:15	030910–2
	Cobalt	–1.19	ug/L					09–MAR–10 15:15	030910–2
	Copper	4.65	ug/L					09–MAR–10 15:15	030910–2
	Iron	187000	ug/L	200000	ug/L	93.7	80.0 – 120.0	09–MAR–10 15:15	030910–2
	Magnesium	497000	ug/L	500000	ug/L	99.4	80.0 – 120.0	09–MAR–10 15:15	030910–2
	Nickel	4.15	ug/L					09–MAR–10 15:15	030910–2
	Potassium	–68.4	ug/L					09–MAR–10 15:15	030910–2
	Selenium	–0.039	ug/L					09–MAR–10 15:15	030910–2
	Silver	–1.53	ug/L					09–MAR–10 15:15	030910–2
	Sodium	31.3	ug/L					09–MAR–10 15:15	030910–2
	Vanadium	0.133	ug/L					09–MAR–10 15:15	030910–2
ICSAB01									
	Aluminum	528000	ug/L	500000	ug/L	106	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Arsenic	532	ug/L	500	ug/L	106	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Barium	499	ug/L	500	ug/L	99.7	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Calcium	484000	ug/L	500000	ug/L	96.9	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Chromium	482	ug/L	500	ug/L	96.5	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Cobalt	448	ug/L	500	ug/L	89.6	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Copper	563	ug/L	500	ug/L	113	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Iron	189000	ug/L	200000	ug/L	94.4	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Magnesium	500000	ug/L	500000	ug/L	100	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Nickel	450	ug/L	500	ug/L	90	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Potassium	5840	ug/L	5000	ug/L	117	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Selenium	2570	ug/L	2500	ug/L	103	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Silver	276	ug/L	250	ug/L	111	80.0 – 120.0	09–MAR–10 15:22	030910–2

METALS
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Interference Check Sample

SDG No: 10–1747–1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Sodium	5440	ug/L	5000	ug/L	109	80.0 – 120.0	09–MAR–10 15:22	030910–2
	Vanadium	516	ug/L	500	ug/L	103	80.0 – 120.0	09–MAR–10 15:22	030910–2

METALS
–4–
Interference Check Sample

SDG No: 10–1747–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lead	0.242	ug/L					07–MAR–10 09:08	100306–3
ICSAB01									
	Lead	19.6	ug/L	20.19	ug/L	97	80.0 – 120.0	07–MAR–10 09:10	100306–3

METALS
–4–
Interference Check Sample

SDG No: 10–1747–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.04	ug/L					07–MAR–10 03:53	100306–4
	Beryllium	0.108	ug/L					07–MAR–10 03:53	100306–4
	Cadmium	0.547	ug/L					07–MAR–10 03:53	100306–4
	Manganese	5.96	ug/L					07–MAR–10 03:53	100306–4
	Thallium	–0.029	ug/L					07–MAR–10 03:53	100306–4
ICSAB01									
	Antimony	21.9	ug/L	20	ug/L	109	80.0 – 120.0	07–MAR–10 03:58	100306–4
	Beryllium	19.4	ug/L	20	ug/L	97.1	80.0 – 120.0	07–MAR–10 03:58	100306–4
	Cadmium	20.5	ug/L	20.44	ug/L	100	80.0 – 120.0	07–MAR–10 03:58	100306–4
	Manganese	27.3	ug/L	25.8	ug/L	106	80.0 – 120.0	07–MAR–10 03:58	100306–4
	Thallium	21.1	ug/L	20	ug/L	106	80.0 – 120.0	07–MAR–10 03:58	100306–4

METALS
–4–
Interference Check Sample

SDG No: 10–1747–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.018	ug/L					07–MAR–10 09:17	100306–8
ICSAB01									
	Uranium	23.0	ug/L	20	ug/L	115	80.0 – 120.0	07–MAR–10 09:18	100306–8

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1747–1 **Client ID** RE46–10–12762S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246882001 **Spike ID:** 1202042569

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	5220		68	U	5000	104		P
Arsenic	ug/L	75–125	513		5	U	500	103		P
Barium	ug/L	75–125	523		1	U	500	104		P
Calcium	ug/L	75–125	5150		50	U	5000	102		P
Chromium	ug/L	75–125	523		1	U	500	105		P
Cobalt	ug/L	75–125	515		1	U	500	103		P
Copper	ug/L	75–125	532		3	U	500	106		P
Iron	ug/L	75–125	5290		30	U	5000	106		P
Magnesium	ug/L	75–125	5170		119	J	5000	101		P
Nickel	ug/L	75–125	535		1.5	U	500	107		P
Potassium	ug/L	75–125	4970		50	U	5000	99.1		P
Selenium	ug/L	75–125	523		5.03	J	500	104		P
Silver	ug/L	75–125	503		1	U	500	101		P
Sodium	ug/L	75–125	5430		100	U	5000	108		P
Vanadium	ug/L	75–125	535		1	U	500	107		P
Zinc	ug/L	75–125	494		3.3	U	500	98.7		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1747–1 **Client ID** RE46–10–12762S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246882001 **Spike ID:** 1202042574

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	ug/L	75–125	48.5		0.1	U	50	97		MS
Cadmium	ug/L	75–125	10.3		0.11	U	10	103		MS
Lead	ug/L	75–125	39.4		0.5	U	40	98.4		MS
Manganese	ug/L	75–125	50.1		1	U	50	99.1		MS
Thallium	ug/L	75–125	84.5		0.3	U	100	84.3		MS
Uranium	ug/L	75–125	51.6		0.05	U	50	103		MS
Antimony	ug/L	75–125	199		1	U	200	99.6		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1747–1 **Client ID** RE16–10–3221S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246860001 **Spike ID:** 1202045614

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	1.92		0.066	U	2	95.4		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1747–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–12762D

Sample ID: 246882001 **Duplicate ID:** 1202042568 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Calcium	ug/L		50	U	50	U			P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L	+/–300	119	J	94.3	J	22.8		P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L		50	U	50	U			P
Selenium	ug/L		5.03	J	5	U	200		P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L		100	U	100	U			P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1747–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–12762D

Sample ID: 246882001 **Duplicate ID:** 1202042573 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L		1	U	1	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1747–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE16–10–3221D

Sample ID: 246860001 **Duplicate ID:** 1202045613 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1747–1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202042567								
	Aluminum	ug/L	5000	5140		103	80–120	P
	Arsenic	ug/L	500	504		101	80–120	P
	Barium	ug/L	500	510		102	80–120	P
	Calcium	ug/L	5000	5210		104	80–120	P
	Chromium	ug/L	500	511		102	80–120	P
	Cobalt	ug/L	500	503		101	80–120	P
	Copper	ug/L	500	514		103	80–120	P
	Iron	ug/L	5000	5190		104	80–120	P
	Magnesium	ug/L	5000	5350		107	80–120	P
	Nickel	ug/L	500	521		104	80–120	P
	Potassium	ug/L	5000	5100		102	80–120	P
	Selenium	ug/L	500	533		107	80–120	P
	Silver	ug/L	500	493		98.6	80–120	P
	Sodium	ug/L	5000	5050		101	80–120	P
	Vanadium	ug/L	500	520		104	80–120	P
	Zinc	ug/L	500	494		98.7	80–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1747–1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202042572								
	Lead	ug/L	50	51		102	80–120	MS
	Manganese	ug/L	50	53.2		106	80–120	MS
	Thallium	ug/L	50	42.6		85.3	80–120	MS
	Uranium	ug/L	50	51.8		104	80–120	MS
	Antimony	ug/L	50	54.8		110	80–120	MS
	Beryllium	ug/L	50	51.7		103	80–120	MS
	Cadmium	ug/L	50	51.9		104	80–120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1747-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202045612								
	Mercury	ug/L	2	2		100	80-120	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1747–1 **Client ID** RE46–10–12762L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246882001 **Serial Dilution ID:** 1202042570

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	119	J	425	U	100			P
Nickel	1.5	U	7.5	U				P
Potassium	50	U	250	U				P
Selenium	5.03	J	25	U	100			P
Silver	1	U	5	U				P
Sodium	100	U	500	U				P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1747–1 **Client ID** RE46–10–12762L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246882001 **Serial Dilution ID:** 1202042575

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1	U	5	U				MS
Thallium	.3	U	6.4					MS
Uranium	.05	U	.25	U				MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1747–1 **Client ID** RE16–10–3221L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246860001 **Serial Dilution ID:** 1202045615

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

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1747-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	952948						
1202042566	MB for batch 952948	MB	W	22-FEB-10	50mL	50mL	
1202042567	LCS for batch 952948	LCS	W	22-FEB-10	50mL	50mL	
1202042569	RE46-10-12762S	MS	W	22-FEB-10	50mL	50mL	
1202042568	RE46-10-12762D	DUP	W	22-FEB-10	50mL	50mL	
246838001	RE15-10-8085	SAMPLE	W	22-FEB-10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1747–1 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	952950						
1202042571	MB for batch 952950	MB	W	22–FEB–10	50mL	50mL	
1202042572	LCS for batch 952950	LCS	W	22–FEB–10	50mL	50mL	
1202042574	RE46–10–12762S	MS	W	22–FEB–10	50mL	50mL	
1202042573	RE46–10–12762D	DUP	W	22–FEB–10	50mL	50mL	
246838001	RE15–10–8085	SAMPLE	W	22–FEB–10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1747-1 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	954255						
1202045611	MB for batch 954255	MB	W	17-FEB-10	20mL	20mL	
1202045612	LCS for batch 954255	LCS	W	17-FEB-10	20mL	20mL	
1202045614	RE16-10-3221S	MS	W	17-FEB-10	20mL	20mL	
1202045613	RE16-10-3221D	DUP	W	17-FEB-10	20mL	20mL	
246838001	RE15-10-8085	SAMPLE	W	17-FEB-10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 07–MAR–10 **End Date:** 07–MAR–10

Client Sdg: 10–1747–1
Method MS
Data File: 100306–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	03:21		X			X	X								X							X			
S10	1	03:26		X			X	X								X							X			
S100	1	03:32		X			X	X								X							X			
ICV01	1	03:37		X			X	X								X							X			
ICB01	1	03:42		X			X	X								X							X			
CRDL01	1	03:47		X			X	X								X							X			
ICSA01	1	03:53		X			X	X								X							X			
ICSAB01	1	03:58		X			X	X								X							X			
CCV01	1	04:03		X			X	X								X							X			
CCB01	1	04:09		X			X	X								X							X			
ZZZZZZ	1	04:14																								
ZZZZZZ	1	04:20																								
ZZZZZZ	1	04:25																								
ZZZZZZ	1	04:30																								
ZZZZZZ	1	04:36																								
ZZZZZZ	5	04:41																								
CCV02	1	04:46		X			X	X								X							X			
CCB02	1	04:52		X			X	X								X							X			
ZZZZZZ	1	04:57																								
ZZZZZZ	1	05:02																								
ZZZZZZ	1	05:08																								
ZZZZZZ	1	05:13																								
ZZZZZZ	1	05:18																								
ZZZZZZ	1	05:23																								
ZZZZZZ	1	05:29																								
ZZZZZZ	5	05:34																								
CCV03	1	05:39		X			X	X								X							X			
CCB03	1	05:45		X			X	X								X							X			
ZZZZZZ	1	05:50																								
1202042572	1	05:55		X			X	X								X							X			
ZZZZZZ	1	06:01																								
ZZZZZZ	1	06:06																								
ZZZZZZ	1	06:11																								
1202042573	1	06:17		X			X	X								X							X			
1202042574	1	06:22		X			X	X								X							X			
1202042575	5	06:28		X			X	X								X							X			
CCV04	1	06:33		X			X	X								X							X			
CCB04	1	06:38		X			X	X								X							X			
ZZZZZZ	1	06:44																								
ZZZZZZ	1	06:49																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	06:54																							
ZZZZZZ	1	07:00																							
ZZZZZZ	1	07:05																							
246838001	1	07:10		X			X	X							X						X				
ZZZZZZ	1	07:16																							
1202042571	1	07:22		X			X	X							X						X				
CCV05	1	07:27		X			X	X							X						X				
CCB05	1	07:33		X			X	X							X						X				

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 07-MAR-10 **End Date:** 07-MAR-10

Client Sdg: 10-1747-1
Method MS
Data File: 100306-8

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:07																						X		
S10	1	09:09																						X		
S100	1	09:10																						X		
ICV01	1	09:12																						X		
ICB01	1	09:13																						X		
CRDL01	1	09:15																						X		
ICSA01	1	09:17																						X		
ICSAB01	1	09:18																						X		
CCV01	1	09:20																						X		
CCB01	1	09:22																						X		
ZZZZZZ	2	09:24																								
ZZZZZZ	40	09:26																								
ZZZZZZ	2	09:28																								
ZZZZZZ	2	09:29																								
ZZZZZZ	2	09:31																								
ZZZZZZ	2	09:33																								
ZZZZZZ	10	09:35																								
CCV02	1	09:36																						X		
CCB02	1	09:38																						X		
ZZZZZZ	1	09:41																								
ZZZZZZ	1	09:43																								
ZZZZZZ	1	09:44																								
ZZZZZZ	1	09:46																								
ZZZZZZ	1	09:48																								
ZZZZZZ	1	09:49																								
CCV03	1	09:51																						X		
CCB03	1	09:53																						X		
ZZZZZZ	1	09:55																								
ZZZZZZ	1	09:56																								
ZZZZZZ	1	09:58																								
ZZZZZZ	5	10:00																								
ZZZZZZ	1	10:01																								
CCV04	1	10:03																						X		
CCB04	1	10:05																						X		
ZZZZZZ	1	10:08																								
ZZZZZZ	1	10:10																								
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:13																								
ZZZZZZ	1	10:15																								
ZZZZZZ	1	10:17																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:18																							
ZZZZZZ	5	10:20																							
CCV05	1	10:22																					X		
CCB05	1	10:23																					X		
1202042571	1	10:25																					X		
1202042572	1	10:27																					X		
246838001	1	10:28																					X		
ZZZZZZ	1	10:30																							
ZZZZZZ	1	10:32																							
1202042573	1	10:33																					X		
1202042574	1	10:35																					X		
1202042575	5	10:37																					X		
CCV06	1	10:38																					X		
CCB06	1	10:40																					X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 04–MAR–10 **End Date:** 05–MAR–10

Client Sdg: 10–1747–1
Method P
Data File: 030410–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	15:07																								X
S0.1	1	15:14																								X
S0.5	1	15:20																								X
SCAL	1	15:27																								X
S10	1	15:34																								
ICV01	1	15:39																								X
ICB01	1	15:46																								X
PQL01	1	15:53																								X
ICSA01	1	16:00																								X
ICSAB01	1	16:07																								X
LR01	1	16:13																								X
LR02	1	16:19																								X
ZZZZZZ	1	16:26																								
ZZZZZZ	1	16:33																								
CCV01	1	16:39																								X
CCB01	1	16:46																								X
LR03	1	16:53																								X
CCV02	1	17:00																								X
CCB02	1	17:07																								X
ZZZZZZ	1	17:19																								
ZZZZZZ	1	17:26																								
ZZZZZZ	1	17:33																								
ZZZZZZ	1	17:40																								
ZZZZZZ	1	17:47																								
ZZZZZZ	5	17:54																								
CCV03	1	18:00																								X
CCB03	1	18:07																								X
CCV04	1	18:29																								X
CCB04	1	18:36																								X
ZZZZZZ	1	18:42																								
ZZZZZZ	1	18:49																								
ZZZZZZ	1	18:55																								
ZZZZZZ	1	19:02																								
ZZZZZZ	1	19:09																								
ZZZZZZ	1	19:16																								
ZZZZZZ	5	19:23																								
ZZZZZZ	1	19:30																								
ZZZZZZ	1	19:37																								
CCV05	1	19:43																								X
CCB05	1	19:50																								X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	19:57																								
ZZZZZZ	1	20:04																								
ZZZZZZ	1	20:11																								
ZZZZZZ	1	20:18																								
ZZZZZZ	1	20:25																								
ZZZZZZ	1	20:32																								
ZZZZZZ	5	20:39																								
CCV06	1	20:45																								X
CCB06	1	20:52																								X
ZZZZZZ	1	20:59																								
ZZZZZZ	1	21:06																								
ZZZZZZ	1	21:13																								
ZZZZZZ	1	21:20																								
ZZZZZZ	1	21:27																								
ZZZZZZ	1	21:34																								
ZZZZZZ	1	21:41																								
CCV07	1	21:48																								X
CCB07	1	21:55																								X
ZZZZZZ	1	22:01																								
ZZZZZZ	1	22:08																								
ZZZZZZ	1	22:15																								
ZZZZZZ	1	22:22																								
ZZZZZZ	1	22:29																								
ZZZZZZ	1	22:36																								
CCV08	1	22:43																								X
CCB08	1	22:49																								X
ZZZZZZ	1	22:56																								
ZZZZZZ	1	23:03																								
ZZZZZZ	1	23:10																								
ZZZZZZ	5	23:17																								
ZZZZZZ	1	23:24																								
ZZZZZZ	1	23:30																								
ZZZZZZ	1	23:37																								
CCV09	1	23:44																								X
CCB09	1	23:51																								X
ZZZZZZ	1	23:58																								
ZZZZZZ	1	00:05																								
ZZZZZZ	1	00:12																								
ZZZZZZ	1	00:19																								
ZZZZZZ	1	00:26																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	00:33																								
ZZZZZZ	5	00:40																								
CCV10	1	00:47																								X
CCB10	1	00:54																								X
ZZZZZZ	1	01:00																								
ZZZZZZ	1	01:08																								
ZZZZZZ	1	01:14																								
ZZZZZZ	1	01:21																								
CCV11	1	01:29																								X
CCB11	1	01:36																								X
ZZZZZZ	1	01:43																								
ZZZZZZ	1	01:49																								
ZZZZZZ	1	01:56																								
ZZZZZZ	1	02:03																								
ZZZZZZ	1	02:10																								
ZZZZZZ	1	02:17																								
ZZZZZZ	5	02:24																								
CCV12	1	02:31																								X
CCB12	1	02:38																								X
ZZZZZZ	1	02:45																								
ZZZZZZ	1	02:51																								
ZZZZZZ	1	02:58																								
ZZZZZZ	1	03:05																								
ZZZZZZ	1	03:12																								
ZZZZZZ	1	03:20																								
ZZZZZZ	1	03:27																								
ZZZZZZ	1	03:34																								
CCV13	1	03:41																								X
CCB13	1	03:48																								X
1202042566	1	03:55																								X
1202042567	1	04:02																								X
246838001	1	04:09																								X
ZZZZZZ	1	04:15																								
ZZZZZZ	1	04:22																								
1202042568	1	04:29																								X
1202042569	1	04:36																								X
1202042570	5	04:43																								X
CCV14	1	04:49																								X
CCB14	1	04:57																								X

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 09-MAR-10 **End Date:** 10-MAR-10

Client Sdg: 10-1747-1
Method P
Data File: 030910-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
S0.1	1	14:28			X	X				X	X	X						X	X	X	X				X	
S0.5	1	14:34	X		X	X			X	X	X	X			X			X	X	X	X				X	
SCAL	1	14:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
S10	1	14:48	X						X				X		X							X				
ICV01	1	14:54	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ICB01	1	15:01	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
PQL01	1	15:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ICSA01	1	15:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ICSAB01	1	15:22	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
LR01	1	15:29	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
LR02	1	15:35	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCV01	1	15:42	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB01	1	15:49	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCV02	1	15:58	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB02	1	16:05	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
LR03	1	16:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCV03	1	16:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB03	1	16:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	16:35																								
ZZZZZZ	1	16:43																								
ZZZZZZ	1	16:50																								
ZZZZZZ	1	16:56																								
ZZZZZZ	1	17:03																								
ZZZZZZ	1	17:10																								
ZZZZZZ	5	17:17																								
CCV04	1	17:24	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB04	1	17:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCV05	1	17:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB05	1	17:52	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	18:00																								
ZZZZZZ	1	18:07																								
ZZZZZZ	1	18:15																								
ZZZZZZ	1	18:22																								
ZZZZZZ	1	18:29																								
ZZZZZZ	5	18:36																								
ZZZZZZ	10	18:43																								
ZZZZZZ	10	18:50																								
ZZZZZZ	10	18:56																								
ZZZZZZ	50	19:03																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																								
CCV06	1	19:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB06	1	19:17	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	19:24																								
ZZZZZZ	1	19:32																								
ZZZZZZ	1	19:39																								
ZZZZZZ	1	19:46																								
ZZZZZZ	1	19:53																								
ZZZZZZ	5	20:00																								
ZZZZZZ	1	20:07																								
ZZZZZZ	1	20:14																								
CCV07	1	20:21	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB07	1	20:28	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	20:35																								
ZZZZZZ	1	20:42																								
ZZZZZZ	1	20:49																								
ZZZZZZ	1	20:56																								
ZZZZZZ	1	21:03																								
ZZZZZZ	1	21:09																								
ZZZZZZ	1	21:17																								
CCV08	1	21:24	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB08	1	21:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	21:38																								
ZZZZZZ	1	21:45																								
ZZZZZZ	1	21:52																								
ZZZZZZ	1	21:59																								
ZZZZZZ	1	22:06																								
ZZZZZZ	1	22:13																								
ZZZZZZ	5	22:20																								
CCV09	1	22:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB09	1	22:34	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	22:41																								
ZZZZZZ	1	22:48																								
ZZZZZZ	1	22:55																								
ZZZZZZ	1	23:02																								
ZZZZZZ	1	23:09																								
CCV10	1	23:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB10	1	23:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	23:31																								
ZZZZZZ	1	23:38																								
ZZZZZZ	1	23:44																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	23:51																								
ZZZZZZ	1	23:59																								
ZZZZZZ	1	00:05																								
ZZZZZZ	5	00:13																								
ZZZZZZ	1	00:19																								
CCV11	1	00:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB11	1	00:34	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	00:41																								
ZZZZZZ	1	00:48																								
ZZZZZZ	1	00:55																								
ZZZZZZ	1	01:02																								
ZZZZZZ	1	01:10																								
ZZZZZZ	1	01:17																								
ZZZZZZ	1	01:24																								
CCV12	1	01:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB12	1	01:38	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	01:45																								
ZZZZZZ	1	01:53																								
ZZZZZZ	1	02:00																								
ZZZZZZ	1	02:07																								
ZZZZZZ	1	02:14																								
ZZZZZZ	1	02:21																								
ZZZZZZ	1	02:28																								
CCV13	1	02:35	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB13	1	02:42	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	02:50																								
ZZZZZZ	1	02:57																								
ZZZZZZ	1	03:04																								
ZZZZZZ	1	03:12																								
ZZZZZZ	1	03:19																								
ZZZZZZ	1	03:26																								
ZZZZZZ	5	03:33																								
ZZZZZZ	1	03:40																								
ZZZZZZ	1	03:47																								
CCV14	1	03:54	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB14	1	04:01	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	04:09																								
ZZZZZZ	1	04:16																								
ZZZZZZ	1	04:23																								
ZZZZZZ	1	04:30																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	04:37																								
ZZZZZZ	1	04:44																								
ZZZZZZ	1	04:52																								
ZZZZZZ	1	04:59																								
CCV15	1	05:06	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB15	1	05:13	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	05:21																								
ZZZZZZ	1	05:28																								
ZZZZZZ	1	05:35																								
ZZZZZZ	1	05:42																								
ZZZZZZ	1	05:49																								
ZZZZZZ	5	05:57																								
ZZZZZZ	5	06:03																								
ZZZZZZ	5	06:10																								
ZZZZZZ	5	06:17																								
ZZZZZZ	25	06:24																								
CCV16	1	06:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB16	1	06:38	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	06:45																								
ZZZZZZ	1	06:53																								
ZZZZZZ	1	07:00																								
ZZZZZZ	1	07:07																								
ZZZZZZ	1	07:14																								
ZZZZZZ	5	07:21																								
ZZZZZZ	5	07:28																								
ZZZZZZ	5	07:35																								
ZZZZZZ	5	07:42																								
ZZZZZZ	25	07:49																								
CCV17	1	07:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB17	1	08:02	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	08:08																								
ZZZZZZ	1	08:16																								
ZZZZZZ	1	08:23																								
ZZZZZZ	1	08:30																								
ZZZZZZ	1	08:37																								
ZZZZZZ	5	08:44																								
CCV18	1	08:51	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB18	1	08:58	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	09:06																								
ZZZZZZ	1	09:13																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	09:20																								
ZZZZZZ	1	09:27																								
ZZZZZZ	1	09:35																								
ZZZZZZ	1	09:41																								
ZZZZZZ	5	09:48																								
CCV19	1	09:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB19	1	10:02	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	10:10																								
ZZZZZZ	1	10:17																								
ZZZZZZ	1	10:24																								
ZZZZZZ	1	10:31																								
CCV20	1	10:38	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB20	1	10:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
1202042566	1	10:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
1202042567	1	11:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
246838001	1	11:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	11:17																								
ZZZZZZ	1	11:23																								
1202042568	1	11:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCV21	1	11:38	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB21	1	11:46	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
1202042569	1	11:53	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
1202042570	5	12:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
ZZZZZZ	1	12:08																								
ZZZZZZ	1	12:14																								
ZZZZZZ	1	12:22																								
ZZZZZZ	1	12:29																								
ZZZZZZ	1	12:36																								
CCV22	1	12:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	
CCB22	1	12:50	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 18–FEB–10 **End Date:** 18–FEB–10

Client Sdg: 10–1747–1
Method AV
Data File: 021810W1–9

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:00															X									
S0.2	1	09:02															X									
S0.5	1	09:04															X									
S2.0	1	09:06															X									
S5.0	1	09:08															X									
S10.0	1	09:10															X									
ICV01	1	09:12															X									
ICB01	1	09:13															X									
CRDL01	1	09:15															X									
CCV01	1	09:17															X									
CCB01	1	09:19															X									
ZZZZZZ	1	09:21																								
ZZZZZZ	1	09:23																								
ZZZZZZ	1	09:25																								
ZZZZZZ	1	09:27																								
ZZZZZZ	1	09:29																								
ZZZZZZ	5	09:31																								
ZZZZZZ	1	09:33																								
ZZZZZZ	1	09:35																								
ZZZZZZ	1	09:36																								
ZZZZZZ	1	09:38																								
CCV02	1	09:40															X									
CCB02	1	09:42															X									
ZZZZZZ	1	09:44																								
ZZZZZZ	1	09:46																								
ZZZZZZ	1	09:48																								
ZZZZZZ	1	09:50																								
ZZZZZZ	1	09:52																								
ZZZZZZ	1	09:54																								
ZZZZZZ	5	09:56																								
ZZZZZZ	1	09:58																								
ZZZZZZ	1	10:00																								
ZZZZZZ	1	10:02																								
CCV03	1	10:03															X									
CCB03	1	10:05															X									
ZZZZZZ	1	10:07																								
ZZZZZZ	1	10:09																								
ZZZZZZ	1	10:11																								
ZZZZZZ	1	10:13																								
ZZZZZZ	1	10:15																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:17																							
ZZZZZZ	1	10:19																							
ZZZZZZ	5	10:21																							
ZZZZZZ	1	10:23																							
ZZZZZZ	1	10:25																							
CCV04	1	10:27													X										
CCB04	1	10:28													X										
ZZZZZZ	1	10:30																							
ZZZZZZ	1	10:32																							
ZZZZZZ	1	10:34																							
ZZZZZZ	1	10:36																							
ZZZZZZ	1	10:38																							
ZZZZZZ	1	10:40																							
ZZZZZZ	1	10:42																							
ZZZZZZ	1	10:44																							
ZZZZZZ	1	10:46																							
ZZZZZZ	1	10:48																							
CCV05	1	10:50													X										
CCB05	1	10:52													X										
ZZZZZZ	1	10:54																							
ZZZZZZ	1	10:55																							
ZZZZZZ	1	10:57																							
ZZZZZZ	1	10:59																							
ZZZZZZ	5	11:01																							
ZZZZZZ	1	11:03																							
ZZZZZZ	1	11:05																							
ZZZZZZ	1	11:07																							
ZZZZZZ	1	11:09																							
ZZZZZZ	1	11:11																							
CCV06	1	11:13													X										
CCB06	1	11:15													X										
ZZZZZZ	1	11:17																							
ZZZZZZ	5	11:19																							
ZZZZZZ	1	11:21																							
ZZZZZZ	1	11:22																							
ZZZZZZ	1	11:24																							
ZZZZZZ	1	11:26																							
ZZZZZZ	1	11:28																							
ZZZZZZ	1	11:30																							
ZZZZZZ	1	11:32																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	11:34																								
CCV07	1	11:36															X									
CCB07	1	11:38															X									
ZZZZZZ	5	11:40																								
ZZZZZZ	1	11:42																								
1202045611	1	11:44															X									
1202045612	1	11:46															X									
ZZZZZZ	1	11:48																								
ZZZZZZ	1	11:50																								
ZZZZZZ	1	11:52																								
ZZZZZZ	1	11:53																								
ZZZZZZ	1	11:55																								
ZZZZZZ	1	11:57																								
CCV08	1	11:59															X									
CCB08	1	12:01															X									
CCV09	1	12:08															X									
CCB09	1	12:10															X									
ZZZZZZ	5	12:12																								
ZZZZZZ	50	12:14																								
ZZZZZZ	1	12:16																								
ZZZZZZ	1	12:18																								
ZZZZZZ	1	12:20																								
ZZZZZZ	1	12:22																								
ZZZZZZ	1	12:24																								
246838001	1	12:26															X									
ZZZZZZ	1	12:28																								
ZZZZZZ	1	12:30																								
CCV10	1	12:32															X									
CCB10	1	12:34															X									
ZZZZZZ	1	12:36																								
ZZZZZZ	1	12:37																								
1202045613	1	12:39															X									
1202045614	1	12:41															X									
1202045615	5	12:43															X									
ZZZZZZ	1	12:45																								
ZZZZZZ	1	12:47																								
ZZZZZZ	1	12:49																								
ZZZZZZ	1	12:51																								
ZZZZZZ	1	12:53																								
CCV11	1	12:55															X									

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																								
CCB11	1	12:57															X									

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 07–MAR–10 **End Date:** 07–MAR–10

Client Sdg: 10–1747–1
Method MS
Data File: 100306–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	08:57												X												
S10	1	08:59												X												
S100	1	09:01												X												
ICV01	1	09:03												X												
ICB01	1	09:05												X												
CRDL01	1	09:06												X												
ICSA01	1	09:08												X												
ICSAB01	1	09:10												X												
CCV01	1	09:12												X												
CCB01	1	09:14												X												
ZZZZZZ	1	09:17																								
ZZZZZZ	1	09:19																								
ZZZZZZ	1	09:20																								
ZZZZZZ	1	09:22																								
ZZZZZZ	1	09:24																								
ZZZZZZ	5	09:26																								
CCV02	1	09:28												X												
CCB02	1	09:29												X												
ZZZZZZ	1	09:31																								
ZZZZZZ	1	09:33																								
ZZZZZZ	1	09:35																								
ZZZZZZ	1	09:37																								
ZZZZZZ	1	09:39																								
ZZZZZZ	1	09:40																								
ZZZZZZ	1	09:42																								
ZZZZZZ	5	09:44																								
CCV03	1	09:46												X												
CCB03	1	09:48												X												
1202042571	1	09:50												X												
1202042572	1	09:52												X												
246838001	1	09:53												X												
ZZZZZZ	1	09:55																								
ZZZZZZ	1	09:57																								
1202042573	1	09:59												X												
1202042574	1	10:01												X												
1202042575	5	10:03												X												
CCV04	1	10:04												X												
CCB04	1	10:06												X												

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1747–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1747-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1747-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

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

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747-1
Effective Dates: 01-FEB-10

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

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747-1
Effective Dates: 01-FEB-10

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

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747-1
Effective Dates: 01-FEB-10

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

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1747-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Linear Ranges

SDG NO. 10–1747–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1747–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1747–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

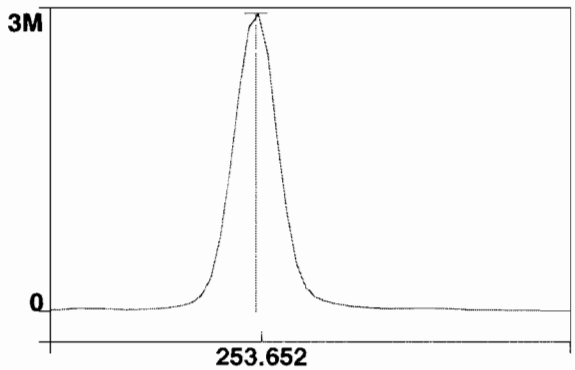
Raw Data

Method: Hg_ReAlign
Result: 031010

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1



Intensity: 3142939.9 cps
Conc:

1

==========

Analysis Begun

Start Time: 3/4/2010 15:07:28 **Plasma On Time:** 3/1/2010 06:57:40
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\030410.sif
Batch ID:
Results Data Set: 030410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 8
Sample ID: S0 **Date Collected:** 3/4/2010 15:07:28
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4785.5	4785.5	101	%	15:09:21
1	Y RADIAL	5067.3	5067.3	100.5	%	15:09:21
1	Al 396.153Radial†	-81.7	-81.0	[0.00]	ug/L	15:09:41
1	Ca 317.933Radial†	19.4	19.3	[0.00]	ug/L	15:09:41
1	Fe 238.204 Radial†	8.2	8.2	[0.00]	ug/L	15:09:41
1	K 766.490 Radial†	2382.3	2363.6	[0.00]	ug/L	15:09:21
1	Mg 279.077 IEC†	1.9	1.9	[0.00]	ug/L	15:09:41
1	Na 589.592 Radial†	-732.2	-726.4	[0.00]	ug/L	15:09:21
1	Sr 421.552†	18.4	18.3	[0.00]	ug/L	15:09:21
1	Sc 361.383	794914.9	794914.9	100.52	%	15:10:37
1	Y 371.029	710822.7	710822.7	100.54	%	15:10:37
1	Ag 328.068†	183.0	182.1	[0.00]	ug/L	15:10:37
1	As 188.979†	-31.2	-31.1	[0.00]	ug/L	15:10:57
1	B 249.677†	-215.6	-214.5	[0.00]	ug/L	15:10:57
1	Ba 233.527†	-5.4	-5.4	[0.00]	ug/L	15:10:57
1	Be 313.107†	-9356.1	-9307.8	[0.00]	ug/L	15:10:37
1	Cd 226.502†	-184.6	-183.7	[0.00]	ug/L	15:10:57
1	Co 228.616†	-64.0	-63.7	[0.00]	ug/L	15:10:57
1	Cr 267.716†	48.4	48.1	[0.00]	ug/L	15:10:57
1	Cu 324.752†	7759.8	7719.7	[0.00]	ug/L	15:10:37
1	Mn 257.610†	442.5	440.2	[0.00]	ug/L	15:10:57
1	Mo 202.031†	15.0	14.9	[0.00]	ug/L	15:10:57
1	Ni 231.604†	78.5	78.1	[0.00]	ug/L	15:10:57
1	P 214.914†	194.1	193.1	[0.00]	ug/L	15:10:57
1	Pb 220.353†	-64.5	-64.1	[0.00]	ug/L	15:10:57
1	S 181.975 Axial†	41.6	41.4	[0.00]	ug/L	15:10:57
1	Sb 206.836†	37.4	37.2	[0.00]	ug/L	15:10:57
1	Se 196.026†	-18.7	-18.6	[0.00]	ug/L	15:10:57
1	Si 251.611†	543.4	540.6	[0.00]	ug/L	15:10:57
1	Sn 189.927†	17.2	17.2	[0.00]	ug/L	15:10:57
1	Ti 334.940†	-1320.5	-1313.7	[0.00]	ug/L	15:10:37
1	Tl 190.801†	-35.6	-35.5	[0.00]	ug/L	15:10:57
1	U 409.014†	-2310.3	-2298.4	[0.00]	ug/L	15:10:37
1	V 292.402†	-1642.6	-1634.2	[0.00]	ug/L	15:10:37
1	Zn 213.857†	795.0	790.9	[0.00]	ug/L	15:10:57
1	SiO2†	554.2	551.4	[0.00]	ug/L	15:11:53
2	Sc Radial	4727.6	4727.6	99.6	%	15:09:46
2	Y RADIAL	5028.3	5028.3	99.77	%	15:09:46
2	Al 396.153Radial†	-82.3	-82.7	[0.00]	ug/L	15:10:06
2	Ca 317.933Radial†	17.6	17.6	[0.00]	ug/L	15:10:06
2	Fe 238.204 Radial†	7.6	7.6	[0.00]	ug/L	15:10:06
2	K 766.490 Radial†	2318.0	2328.0	[0.00]	ug/L	15:09:46
2	Mg 279.077 IEC†	2.0	2.0	[0.00]	ug/L	15:10:06
2	Na 589.592 Radial†	-708.6	-711.6	[0.00]	ug/L	15:09:46
2	Sr 421.552†	35.0	35.2	[0.00]	ug/L	15:09:46
2	Sc 361.383	784944.9	784944.9	99.258	%	15:11:03
2	Y 371.029	701682.2	701682.2	99.249	%	15:11:03

2	Ag 328.068†	200.2	201.7	[0.00]	ug/L	15:11:03
2	As 188.979†	-22.4	-22.6	[0.00]	ug/L	15:11:23
2	B 249.677†	-221.5	-223.2	[0.00]	ug/L	15:11:23
2	Ba 233.527†	6.4	6.5	[0.00]	ug/L	15:11:23
2	Be 313.107†	-9321.1	-9390.8	[0.00]	ug/L	15:11:03
2	Cd 226.502†	-183.9	-185.3	[0.00]	ug/L	15:11:23
2	Co 228.616†	-67.6	-68.1	[0.00]	ug/L	15:11:23
2	Cr 267.716†	61.7	62.1	[0.00]	ug/L	15:11:23
2	Cu 324.752†	7613.4	7670.3	[0.00]	ug/L	15:11:03
2	Mn 257.610†	436.0	439.3	[0.00]	ug/L	15:11:23
2	Mo 202.031†	9.8	9.8	[0.00]	ug/L	15:11:23
2	Ni 231.604†	73.7	74.3	[0.00]	ug/L	15:11:23
2	P 214.914†	203.2	204.7	[0.00]	ug/L	15:11:23
2	Pb 220.353†	-54.0	-54.4	[0.00]	ug/L	15:11:23
2	S 181.975 Axial†	37.7	38.0	[0.00]	ug/L	15:11:23
2	Sb 206.836†	28.8	29.0	[0.00]	ug/L	15:11:23
2	Se 196.026†	-25.6	-25.8	[0.00]	ug/L	15:11:23
2	Si 251.611†	556.0	560.1	[0.00]	ug/L	15:11:23
2	Sn 189.927†	17.0	17.1	[0.00]	ug/L	15:11:23
2	Ti 334.940†	-1376.0	-1386.3	[0.00]	ug/L	15:11:03
2	Tl 190.801†	-26.8	-27.0	[0.00]	ug/L	15:11:23
2	U 409.014†	-2344.5	-2362.0	[0.00]	ug/L	15:11:03
2	V 292.402†	-1705.0	-1717.8	[0.00]	ug/L	15:11:03
2	Zn 213.857†	796.3	802.3	[0.00]	ug/L	15:11:23
2	SiO2†	561.8	566.0	[0.00]	ug/L	15:11:59
3	Sc Radial	4730.6	4730.6	99.6	%	15:10:11
3	Y RADIAL	5024.9	5024.9	99.70	%	15:10:11
3	Al 396.153Radial†	-83.4	-83.7	[0.00]	ug/L	15:10:31
3	Ca 317.933Radial†	17.8	17.9	[0.00]	ug/L	15:10:31
3	Fe 238.204 Radial†	6.0	6.0	[0.00]	ug/L	15:10:31
3	K 766.490 Radial†	2220.6	2228.7	[0.00]	ug/L	15:10:11
3	Mg 279.077 IEC†	2.5	2.5	[0.00]	ug/L	15:10:31
3	Na 589.592 Radial†	-770.3	-773.2	[0.00]	ug/L	15:10:11
3	Sr 421.552†	3.3	3.3	[0.00]	ug/L	15:10:11
3	Sc 361.383	792576.5	792576.5	100.22	%	15:11:28
3	Y 371.029	708466.0	708466.0	100.21	%	15:11:28
3	Ag 328.068†	145.9	145.6	[0.00]	ug/L	15:11:28
3	As 188.979†	-32.3	-32.2	[0.00]	ug/L	15:11:48
3	B 249.677†	-235.6	-235.1	[0.00]	ug/L	15:11:48
3	Ba 233.527†	-13.2	-13.2	[0.00]	ug/L	15:11:48
3	Be 313.107†	-9319.7	-9298.9	[0.00]	ug/L	15:11:28
3	Cd 226.502†	-179.3	-178.9	[0.00]	ug/L	15:11:48
3	Co 228.616†	-61.4	-61.3	[0.00]	ug/L	15:11:48
3	Cr 267.716†	73.6	73.4	[0.00]	ug/L	15:11:48
3	Cu 324.752†	7798.6	7781.2	[0.00]	ug/L	15:11:28
3	Mn 257.610†	412.8	411.9	[0.00]	ug/L	15:11:48
3	Mo 202.031†	11.2	11.2	[0.00]	ug/L	15:11:48
3	Ni 231.604†	89.3	89.1	[0.00]	ug/L	15:11:48
3	P 214.914†	199.1	198.7	[0.00]	ug/L	15:11:48
3	Pb 220.353†	-54.1	-54.0	[0.00]	ug/L	15:11:48
3	S 181.975 Axial†	43.8	43.7	[0.00]	ug/L	15:11:48
3	Sb 206.836†	32.5	32.4	[0.00]	ug/L	15:11:48
3	Se 196.026†	-12.5	-12.4	[0.00]	ug/L	15:11:48
3	Si 251.611†	553.9	552.7	[0.00]	ug/L	15:11:48
3	Sn 189.927†	4.9	4.9	[0.00]	ug/L	15:11:48
3	Ti 334.940†	-1307.2	-1304.3	[0.00]	ug/L	15:11:28
3	Tl 190.801†	-44.7	-44.6	[0.00]	ug/L	15:11:48
3	U 409.014†	-2450.9	-2445.4	[0.00]	ug/L	15:11:28
3	V 292.402†	-1629.6	-1626.0	[0.00]	ug/L	15:11:28
3	Zn 213.857†	800.5	798.7	[0.00]	ug/L	15:11:48
3	SiO2†	564.8	563.6	[0.00]	ug/L	15:12:04

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	790812.1	5213.91	0.66%	100.00	%
Sc Radial	4747.9	32.63	0.69%	100	%
Y 371.029	706990.3	4745.59	0.67%	100.00	%
Y RADIAL	5040.2	23.54	0.47%	100.0	%
Ag 328.068†	176.5	28.47	16.14%	[0.00]	ug/L

Al 396.153Radial†	-82.5	1.36	1.64%	[0.00]	ug/L
As 188.979†	-28.6	5.26	18.39%	[0.00]	ug/L
B 249.677†	-224.2	10.33	4.61%	[0.00]	ug/L
Ba 233.527†	-4.0	9.90	246.06%	[0.00]	ug/L
Be 313.107†	-9332.5	50.65	0.54%	[0.00]	ug/L
Ca 317.933Radial†	18.3	0.88	4.83%	[0.00]	ug/L
Cd 226.502†	-182.6	3.33	1.82%	[0.00]	ug/L
Co 228.616†	-64.4	3.45	5.36%	[0.00]	ug/L
Cr 267.716†	61.2	12.68	20.71%	[0.00]	ug/L
Cu 324.752†	7723.7	55.58	0.72%	[0.00]	ug/L
Fe 238.204 Radial†	7.3	1.11	15.25%	[0.00]	ug/L
K 766.490 Radial†	2306.7	69.88	3.03%	[0.00]	ug/L
Mg 279.077 IEC†	2.1	0.33	15.77%	[0.00]	ug/L
Mn 257.610†	430.5	16.10	3.74%	[0.00]	ug/L
Mo 202.031†	12.0	2.62	21.91%	[0.00]	ug/L
Na 589.592 Radial†	-737.1	32.13	4.36%	[0.00]	ug/L
Ni 231.604†	80.5	7.72	9.59%	[0.00]	ug/L
P 214.914†	198.8	5.81	2.92%	[0.00]	ug/L
Pb 220.353†	-57.5	5.74	9.98%	[0.00]	ug/L
S 181.975 Axial†	41.0	2.87	6.98%	[0.00]	ug/L
Sb 206.836†	32.9	4.11	12.52%	[0.00]	ug/L
Se 196.026†	-19.0	6.70	35.30%	[0.00]	ug/L
Si 251.611†	551.2	9.84	1.79%	[0.00]	ug/L
Sn 189.927†	13.1	7.07	54.07%	[0.00]	ug/L
Sr 421.552†	18.9	15.93	84.12%	[0.00]	ug/L
Ti 334.940†	-1334.8	44.86	3.36%	[0.00]	ug/L
Tl 190.801†	-35.7	8.81	24.67%	[0.00]	ug/L
U 409.014†	-2368.6	73.74	3.11%	[0.00]	ug/L
V 292.402†	-1659.3	50.80	3.06%	[0.00]	ug/L
Zn 213.857†	797.3	5.81	0.73%	[0.00]	ug/L
SiO2†	560.3	7.85	1.40%	[0.00]	ug/L

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

Autosampler Location: 2
Date Collected: 3/4/2010 15:14:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4948.5	4948.5	104	%	15:16:11
1	Y RADIAL	5223.1	5223.1	103.6	%	15:16:11
1	K 766.490 Radial†	7760.9	5139.5	[1000]	ug/L	15:16:06
1	Sr 421.552†	14799.9	14181.0	[100]	ug/L	15:16:11
1	Sc 361.383	801354.8	801354.8	101.33	%	15:16:38
1	Y 371.029	716064.4	716064.4	101.28	%	15:16:38
1	Ag 328.068†	20191.1	19749.0	[100]	ug/L	15:16:38
1	As 188.979†	211.6	237.5	[100]	ug/L	15:16:58
1	B 249.677†	3661.0	3837.1	[100]	ug/L	15:16:38
1	Ba 233.527†	8758.0	8646.8	[100]	ug/L	15:16:38
1	Be 313.107†	248724.8	254785.0	[100]	ug/L	15:16:38
1	Cd 226.502†	7252.7	7339.9	[100]	ug/L	15:16:38
1	Co 228.616†	3377.9	3397.8	[100]	ug/L	15:16:58
1	Cr 267.716†	7728.7	7565.8	[100]	ug/L	15:16:38
1	Cu 324.752†	34635.7	26456.3	[100]	ug/L	15:16:38
1	Mn 257.610†	66439.8	65135.2	[100]	ug/L	15:16:38
1	Mo 202.031†	1139.4	1112.4	[100]	ug/L	15:16:58
1	Ni 231.604†	3323.6	3199.4	[100]	ug/L	15:16:58
1	P 214.914†	1124.6	910.9	[500]	ug/L	15:16:58
1	Pb 220.353†	574.2	624.2	[100]	ug/L	15:16:58
1	S 181.975 Axial†	208.7	164.9	[200]	ug/L	15:16:58
1	Sb 206.836†	285.8	249.2	[100]	ug/L	15:16:58
1	Se 196.026†	154.2	171.1	[100]	ug/L	15:16:58
1	Si 251.611†	14884.2	14137.3	[500]	ug/L	15:16:38
1	Sn 189.927†	446.1	427.1	[100]	ug/L	15:16:58
1	Ti 334.940†	50394.7	51066.5	[100]	ug/L	15:16:38
1	Tl 190.801†	184.4	217.6	[100]	ug/L	15:16:58
1	U 409.014†	573.2	2934.2	[100]	ug/L	15:16:38
1	V 292.402†	11162.5	12675.0	[100]	ug/L	15:16:38
1	Zn 213.857†	10832.0	9892.2	[100]	ug/L	15:16:38
1	SiO2†	15080.4	14321.7	[1069.5]	ug/L	15:17:55
2	Sc Radial	4773.8	4773.8	101	%	15:16:21
2	Y RADIAL	5045.6	5045.6	100.1	%	15:16:21
2	K 766.490 Radial†	7828.2	5479.0	[1000]	ug/L	15:16:16
2	Sr 421.552†	14333.5	14236.9	[100]	ug/L	15:16:21
2	Sc 361.383	798968.2	798968.2	101.03	%	15:17:04
2	Y 371.029	715568.3	715568.3	101.21	%	15:17:04
2	Ag 328.068†	20234.0	19851.0	[100]	ug/L	15:17:04
2	As 188.979†	200.4	226.9	[100]	ug/L	15:17:24
2	B 249.677†	3655.1	3842.0	[100]	ug/L	15:17:04
2	Ba 233.527†	8741.0	8655.8	[100]	ug/L	15:17:04
2	Be 313.107†	249215.6	256004.0	[100]	ug/L	15:17:04
2	Cd 226.502†	7256.6	7365.1	[100]	ug/L	15:17:04
2	Co 228.616†	3344.9	3375.2	[100]	ug/L	15:17:24
2	Cr 267.716†	7694.5	7554.8	[100]	ug/L	15:17:04
2	Cu 324.752†	34609.3	26532.3	[100]	ug/L	15:17:04
2	Mn 257.610†	66349.9	65242.1	[100]	ug/L	15:17:04
2	Mo 202.031†	1144.4	1120.7	[100]	ug/L	15:17:24
2	Ni 231.604†	3323.7	3209.3	[100]	ug/L	15:17:24
2	P 214.914†	1115.2	904.9	[500]	ug/L	15:17:24
2	Pb 220.353†	572.4	624.0	[100]	ug/L	15:17:24
2	S 181.975 Axial†	200.7	157.6	[200]	ug/L	15:17:24
2	Sb 206.836†	284.4	248.6	[100]	ug/L	15:17:24
2	Se 196.026†	141.6	159.2	[100]	ug/L	15:17:24
2	Si 251.611†	14915.2	14211.8	[500]	ug/L	15:17:04
2	Sn 189.927†	453.4	435.7	[100]	ug/L	15:17:24
2	Ti 334.940†	50421.9	51242.0	[100]	ug/L	15:17:04
2	Tl 190.801†	173.3	207.2	[100]	ug/L	15:17:24
2	U 409.014†	654.0	3015.9	[100]	ug/L	15:17:04

2	V 292.402†	11304.6	12848.5	[100]	ug/L	15:17:04
2	Zn 213.857†	10795.9	9888.4	[100]	ug/L	15:17:04
2	SiO2†	15092.7	14378.3	[1069.5]	ug/L	15:18:00
3	Sc Radial	4928.1	4928.1	104	%	15:16:31
3	Y RADIAL	5178.4	5178.4	102.7	%	15:16:31
3	K 766.490 Radial†	7705.2	5116.6	[1000]	ug/L	15:16:26
3	Sr 421.552†	14827.2	14266.0	[100]	ug/L	15:16:31
3	Sc 361.383	798486.4	798486.4	100.97	%	15:17:29
3	Y 371.029	714648.5	714648.5	101.08	%	15:17:29
3	Ag 328.068†	20141.6	19771.6	[100]	ug/L	15:17:29
3	As 188.979†	204.9	231.5	[100]	ug/L	15:17:49
3	B 249.677†	3651.1	3840.2	[100]	ug/L	15:17:29
3	Ba 233.527†	8751.4	8671.4	[100]	ug/L	15:17:29
3	Be 313.107†	249161.4	256099.2	[100]	ug/L	15:17:29
3	Cd 226.502†	7259.2	7372.1	[100]	ug/L	15:17:29
3	Co 228.616†	3340.9	3373.1	[100]	ug/L	15:17:49
3	Cr 267.716†	7708.1	7572.8	[100]	ug/L	15:17:29
3	Cu 324.752†	34642.6	26585.9	[100]	ug/L	15:17:29
3	Mn 257.610†	66432.0	65363.1	[100]	ug/L	15:17:29
3	Mo 202.031†	1143.3	1120.3	[100]	ug/L	15:17:49
3	Ni 231.604†	3319.3	3206.9	[100]	ug/L	15:17:49
3	P 214.914†	1131.9	922.1	[500]	ug/L	15:17:49
3	Pb 220.353†	581.7	633.6	[100]	ug/L	15:17:49
3	S 181.975 Axial†	209.5	166.5	[200]	ug/L	15:17:49
3	Sb 206.836†	290.3	254.7	[100]	ug/L	15:17:49
3	Se 196.026†	145.1	162.7	[100]	ug/L	15:17:49
3	Si 251.611†	14885.2	14190.9	[500]	ug/L	15:17:29
3	Sn 189.927†	453.4	436.0	[100]	ug/L	15:17:49
3	Ti 334.940†	50460.6	51310.4	[100]	ug/L	15:17:29
3	Tl 190.801†	187.7	221.6	[100]	ug/L	15:17:49
3	U 409.014†	574.3	2937.4	[100]	ug/L	15:17:29
3	V 292.402†	11375.2	12925.2	[100]	ug/L	15:17:29
3	Zn 213.857†	10803.8	9902.7	[100]	ug/L	15:17:29
3	SiO2†	15108.0	14402.4	[1069.5]	ug/L	15:18:05

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	799603.1	1535.97	0.19%	101.11	%
Sc Radial	4883.5	95.56	1.96%	103	%
Y 371.029	715427.1	718.44	0.10%	101.19	%
Y RADIAL	5149.0	92.35	1.79%	102.2	%
Ag 328.068†	19790.5	53.57	0.27%	[100]	ug/L
As 188.979†	232.0	5.28	2.27%	[100]	ug/L
B 249.677†	3839.8	2.48	0.06%	[100]	ug/L
Ba 233.527†	8658.0	12.40	0.14%	[100]	ug/L
Be 313.107†	255629.4	732.80	0.29%	[100]	ug/L
Cd 226.502†	7359.0	16.96	0.23%	[100]	ug/L
Co 228.616†	3382.0	13.71	0.41%	[100]	ug/L
Cr 267.716†	7564.5	9.09	0.12%	[100]	ug/L
Cu 324.752†	26524.8	65.13	0.25%	[100]	ug/L
K 766.490 Radial†	5245.1	202.96	3.87%	[1000]	ug/L
Mn 257.610†	65246.8	114.00	0.17%	[100]	ug/L
Mo 202.031†	1117.8	4.67	0.42%	[100]	ug/L
Ni 231.604†	3205.2	5.17	0.16%	[100]	ug/L
P 214.914†	912.7	8.73	0.96%	[500]	ug/L
Pb 220.353†	627.3	5.47	0.87%	[100]	ug/L
S 181.975 Axial†	163.0	4.71	2.89%	[200]	ug/L
Sb 206.836†	250.8	3.35	1.34%	[100]	ug/L
Se 196.026†	164.3	6.15	3.74%	[100]	ug/L
Si 251.611†	14180.0	38.43	0.27%	[500]	ug/L
Sn 189.927†	432.9	5.03	1.16%	[100]	ug/L
Sr 421.552†	14227.9	43.21	0.30%	[100]	ug/L
Ti 334.940†	51206.3	125.84	0.25%	[100]	ug/L
Tl 190.801†	215.5	7.42	3.44%	[100]	ug/L
U 409.014†	2962.5	46.27	1.56%	[100]	ug/L
V 292.402†	12816.2	128.18	1.00%	[100]	ug/L
Zn 213.857†	9894.4	7.42	0.07%	[100]	ug/L
SiO2†	14367.5	41.43	0.29%	[1069.5]	ug/L

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Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/4/2010 15:20:15**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4849.0	4849.0	102	%	15:22:07
1	Y RADIAL	5109.0	5109.0	101.4	%	15:22:07
1	Al 396.153Radial†	5276.7	5249.1	[5000]	ug/L	15:22:07
1	Ca 317.933Radial†	2783.4	2707.1	[5000]	ug/L	15:22:27
1	K 766.490 Radial†	28980.6	26069.7	[5000]	ug/L	15:22:07
1	Mg 279.077 IEC†	132.3	127.4	[5000]	ug/L	15:22:27
1	Sr 421.552†	71086.3	69585.2	[500]	ug/L	15:22:07
1	Sc 361.383	820318.3	820318.3	103.73	%	15:23:25
1	Y 371.029	725094.8	725094.8	102.56	%	15:23:25
1	Ag 328.068†	99789.0	96023.2	[500]	ug/L	15:23:30
1	As 188.979†	1129.1	1117.1	[500]	ug/L	15:23:50
1	B 249.677†	19766.4	19279.7	[500]	ug/L	15:23:30
1	Ba 233.527†	43270.0	41717.6	[500]	ug/L	15:23:30
1	Be 313.107†	1280230.4	1243514.1	[500]	ug/L	15:23:25
1	Cd 226.502†	36509.7	35379.1	[500]	ug/L	15:23:30
1	Co 228.616†	16736.8	16199.2	[500]	ug/L	15:23:50
1	Cr 267.716†	37807.3	36386.1	[500]	ug/L	15:23:30
1	Cu 324.752†	143071.0	130201.1	[500]	ug/L	15:23:30
1	Mn 257.610†	320389.2	308434.6	[500]	ug/L	15:23:30
1	Mo 202.031†	5572.4	5360.0	[500]	ug/L	15:23:50
1	Ni 231.604†	16483.4	15810.0	[500]	ug/L	15:23:30
1	P 214.914†	4814.3	4442.3	[2500]	ug/L	15:23:50
1	Pb 220.353†	3106.6	3052.4	[500]	ug/L	15:23:50
1	S 181.975 Axial†	847.6	776.1	[1000]	ug/L	15:23:50
1	Sb 206.836†	1283.4	1204.4	[500]	ug/L	15:23:50
1	Se 196.026†	829.9	819.1	[500]	ug/L	15:23:50
1	Si 251.611†	70482.9	67396.5	[2500]	ug/L	15:23:30
1	Sn 189.927†	2189.6	2097.8	[500]	ug/L	15:23:50
1	Ti 334.940†	250900.0	243210.1	[500]	ug/L	15:23:30
1	Tl 190.801†	1065.9	1063.3	[500]	ug/L	15:23:50
1	U 409.014†	12831.8	14738.9	[500]	ug/L	15:23:30
1	V 292.402†	62935.4	62331.0	[500]	ug/L	15:23:30
1	Zn 213.857†	47644.3	45133.3	[500]	ug/L	15:23:30
1	SiO2†	71600.8	68465.1	[5347.5]	ug/L	15:24:57
2	Sc Radial	4877.8	4877.8	103	%	15:22:32
2	Y RADIAL	5155.5	5155.5	102.3	%	15:22:32
2	Al 396.153Radial†	5348.6	5288.7	[5000]	ug/L	15:22:32
2	Ca 317.933Radial†	2811.8	2718.7	[5000]	ug/L	15:22:53
2	K 766.490 Radial†	29238.2	26152.9	[5000]	ug/L	15:22:32
2	Mg 279.077 IEC†	133.5	127.9	[5000]	ug/L	15:22:53
2	Sr 421.552†	71976.4	70041.0	[500]	ug/L	15:22:32
2	Sc 361.383	812177.7	812177.7	102.70	%	15:23:55
2	Y 371.029	718049.2	718049.2	101.56	%	15:23:55
2	Ag 328.068†	100132.8	97322.2	[500]	ug/L	15:24:01
2	As 188.979†	1124.4	1123.5	[500]	ug/L	15:24:21
2	B 249.677†	19792.3	19495.9	[500]	ug/L	15:24:01
2	Ba 233.527†	43432.4	42293.8	[500]	ug/L	15:24:01
2	Be 313.107†	1274021.4	1249838.8	[500]	ug/L	15:23:55
2	Cd 226.502†	36621.9	35841.1	[500]	ug/L	15:24:01
2	Co 228.616†	16689.9	16315.2	[500]	ug/L	15:24:21
2	Cr 267.716†	37911.4	36852.9	[500]	ug/L	15:24:01
2	Cu 324.752†	143549.8	132049.8	[500]	ug/L	15:24:01
2	Mn 257.610†	321431.9	312545.7	[500]	ug/L	15:24:01
2	Mo 202.031†	5548.7	5390.8	[500]	ug/L	15:24:21
2	Ni 231.604†	16480.8	15966.7	[500]	ug/L	15:24:01
2	P 214.914†	4806.2	4480.9	[2500]	ug/L	15:24:21
2	Pb 220.353†	3112.1	3087.7	[500]	ug/L	15:24:21
2	S 181.975 Axial†	839.6	776.5	[1000]	ug/L	15:24:21
2	Sb 206.836†	1289.8	1223.0	[500]	ug/L	15:24:21

2	Se 196.026†	827.4	824.6	[500]	ug/L	15:24:21
2	Si 251.611†	70771.6	68358.7	[2500]	ug/L	15:24:01
2	Sn 189.927†	2192.6	2121.8	[500]	ug/L	15:24:21
2	Ti 334.940†	251908.2	246616.1	[500]	ug/L	15:24:01
2	Tl 190.801†	1072.8	1080.3	[500]	ug/L	15:24:21
2	U 409.014†	12839.0	14869.9	[500]	ug/L	15:24:01
2	V 292.402†	63166.5	63164.1	[500]	ug/L	15:24:01
2	Zn 213.857†	47760.9	45707.2	[500]	ug/L	15:24:01
2	SiO2†	70619.8	68201.7	[5347.5]	ug/L	15:25:02
3	Sc Radial	4712.0	4712.0	99.2	%	15:22:58
3	Y RADIAL	4980.9	4980.9	98.82	%	15:22:58
3	Al 396.153Radial†	5182.9	5304.9	[5000]	ug/L	15:22:58
3	Ca 317.933Radial†	2796.7	2799.7	[5000]	ug/L	15:23:18
3	K 766.490 Radial†	28488.0	26398.2	[5000]	ug/L	15:22:58
3	Mg 279.077 IEC†	131.6	130.5	[5000]	ug/L	15:23:18
3	Sr 421.552†	69509.5	70019.8	[500]	ug/L	15:22:58
3	Sc 361.383	814622.7	814622.7	103.01	%	15:24:26
3	Y 371.029	720960.3	720960.3	101.98	%	15:24:26
3	Ag 328.068†	100566.0	97450.1	[500]	ug/L	15:24:31
3	As 188.979†	1131.0	1126.6	[500]	ug/L	15:24:51
3	B 249.677†	19950.9	19592.0	[500]	ug/L	15:24:31
3	Ba 233.527†	43690.6	42417.5	[500]	ug/L	15:24:31
3	Be 313.107†	1285523.8	1257281.6	[500]	ug/L	15:24:26
3	Cd 226.502†	36862.2	35967.4	[500]	ug/L	15:24:31
3	Co 228.616†	16749.6	16324.4	[500]	ug/L	15:24:51
3	Cr 267.716†	38150.1	36973.8	[500]	ug/L	15:24:31
3	Cu 324.752†	144280.1	132339.2	[500]	ug/L	15:24:31
3	Mn 257.610†	323026.8	313154.6	[500]	ug/L	15:24:31
3	Mo 202.031†	5548.7	5374.5	[500]	ug/L	15:24:51
3	Ni 231.604†	16637.0	16070.3	[500]	ug/L	15:24:31
3	P 214.914†	4810.1	4470.7	[2500]	ug/L	15:24:51
3	Pb 220.353†	3102.4	3069.2	[500]	ug/L	15:24:51
3	S 181.975 Axial†	857.5	791.4	[1000]	ug/L	15:24:51
3	Sb 206.836†	1295.5	1224.8	[500]	ug/L	15:24:51
3	Se 196.026†	824.7	819.6	[500]	ug/L	15:24:51
3	Si 251.611†	71230.7	68597.6	[2500]	ug/L	15:24:31
3	Sn 189.927†	2194.6	2117.4	[500]	ug/L	15:24:51
3	Ti 334.940†	253015.1	246954.5	[500]	ug/L	15:24:31
3	Tl 190.801†	1064.2	1068.8	[500]	ug/L	15:24:51
3	U 409.014†	12773.6	14768.8	[500]	ug/L	15:24:31
3	V 292.402†	63522.1	63324.7	[500]	ug/L	15:24:31
3	Zn 213.857†	48054.0	45852.2	[500]	ug/L	15:24:31
3	SiO2†	69899.7	67296.3	[5347.5]	ug/L	15:25:07

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	815706.2	4177.04	0.51%	103.15	%
Sc Radial	4812.9	88.57	1.84%	101	%
Y 371.029	721368.1	3540.44	0.49%	102.03	%
Y RADIAL	5081.8	90.40	1.78%	100.8	%
Ag 328.068†	96931.8	789.50	0.81%	[500]	ug/L
Al 396.153Radial†	5280.9	28.66	0.54%	[5000]	ug/L
As 188.979†	1122.4	4.82	0.43%	[500]	ug/L
B 249.677†	19455.9	159.97	0.82%	[500]	ug/L
Ba 233.527†	42143.0	373.54	0.89%	[500]	ug/L
Be 313.107†	1250211.5	6891.33	0.55%	[500]	ug/L
Ca 317.933Radial†	2741.8	50.45	1.84%	[5000]	ug/L
Cd 226.502†	35729.2	309.70	0.87%	[500]	ug/L
Co 228.616†	16279.6	69.79	0.43%	[500]	ug/L
Cr 267.716†	36737.6	310.32	0.84%	[500]	ug/L
Cu 324.752†	131530.0	1159.92	0.88%	[500]	ug/L
K 766.490 Radial†	26206.9	170.79	0.65%	[5000]	ug/L
Mg 279.077 IEC†	128.6	1.67	1.30%	[5000]	ug/L
Mn 257.610†	311378.3	2567.43	0.82%	[500]	ug/L
Mo 202.031†	5375.1	15.39	0.29%	[500]	ug/L
Ni 231.604†	15949.0	131.02	0.82%	[500]	ug/L
P 214.914†	4464.6	19.99	0.45%	[2500]	ug/L
Pb 220.353†	3069.8	17.68	0.58%	[500]	ug/L
S 181.975 Axial†	781.3	8.72	1.12%	[1000]	ug/L

Sb 206.836†	1217.4	11.31	0.93%	[500]	ug/L
Se 196.026†	821.1	3.08	0.37%	[500]	ug/L
Si 251.611†	68117.6	635.78	0.93%	[2500]	ug/L
Sn 189.927†	2112.3	12.78	0.61%	[500]	ug/L
Sr 421.552†	69882.0	257.25	0.37%	[500]	ug/L
Ti 334.940†	245593.6	2071.08	0.84%	[500]	ug/L
Tl 190.801†	1070.8	8.67	0.81%	[500]	ug/L
U 409.014†	14792.5	68.63	0.46%	[500]	ug/L
V 292.402†	62939.9	533.42	0.85%	[500]	ug/L
Zn 213.857†	45564.2	380.16	0.83%	[500]	ug/L
SiO2†	67987.7	613.08	0.90%	[5347.5]	ug/L

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Sequence No.: 4 **Autosampler Location: 4**
Sample ID: SCAL **Date Collected: 3/4/2010 15:27:18**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4739.9	4739.9	99.8	%	15:29:11
1	Y RADIAL	5016.1	5016.1	99.52	%	15:29:11
1	Al 396.153Radial†	10691.0	10791.6	[10000]	ug/L	15:29:11
1	Ca 317.933Radial†	5687.0	5678.3	[10000]	ug/L	15:29:11
1	Fe 238.204 Radial†	1002.3	996.7	[10000]	ug/L	15:29:31
1	K 766.490 Radial†	55555.7	53342.9	[10000]	ug/L	15:29:11
1	Mg 279.077 IEC†	266.3	264.7	[10000]	ug/L	15:29:31
1	Na 589.592 Radial†	30851.5	31640.7	[10000]	ug/L	15:29:11
1	Sr 421.552†	140807.2	141026.3	[1000]	ug/L	15:29:11
1	Sc 361.383	799716.8	799716.8	101.13	%	15:30:34
1	Y 371.029	708177.6	708177.6	100.17	%	15:30:34
1	Ag 328.068†	202874.9	200439.4	[1000]	ug/L	15:30:34
1	As 188.979†	2290.7	2293.8	[1000]	ug/L	15:30:54
1	B 249.677†	40803.3	40573.2	[1000]	ug/L	15:30:34
1	Ba 233.527†	87756.3	86783.2	[1000]	ug/L	15:30:34
1	Be 313.107†	2602800.3	2583150.9	[1000]	ug/L	15:30:29
1	Cd 226.502†	73767.9	73129.1	[1000]	ug/L	15:30:34
1	Co 228.616†	34029.7	33715.1	[1000]	ug/L	15:30:54
1	Cr 267.716†	76344.5	75433.2	[1000]	ug/L	15:30:34
1	Cu 324.752†	284385.4	273495.0	[1000]	ug/L	15:30:34
1	Mn 257.610†	648174.7	640526.8	[1000]	ug/L	15:30:34
1	Mo 202.031†	11238.8	11101.7	[1000]	ug/L	15:30:54
1	Ni 231.604†	32941.4	32494.1	[1000]	ug/L	15:30:34
1	P 214.914†	9532.9	9227.9	[5000]	ug/L	15:30:54
1	Pb 220.353†	6307.2	6294.5	[1000]	ug/L	15:30:54
1	S 181.975 Axial†	1670.7	1611.0	[2000]	ug/L	15:30:54
1	Sb 206.836†	2638.8	2576.5	[1000]	ug/L	15:30:54
1	Se 196.026†	1679.5	1679.8	[1000]	ug/L	15:30:54
1	Si 251.611†	143581.0	141431.1	[5000]	ug/L	15:30:34
1	Sn 189.927†	4461.7	4398.9	[1000]	ug/L	15:30:54
1	Ti 334.940†	512952.9	508576.0	[1000]	ug/L	15:30:34
1	Tl 190.801†	2194.0	2205.3	[1000]	ug/L	15:30:54
1	U 409.014†	28316.0	30369.4	[1000]	ug/L	15:30:34
1	V 292.402†	129347.3	129566.4	[1000]	ug/L	15:30:34
1	Zn 213.857†	95397.2	93537.6	[1000]	ug/L	15:30:34
1	SiO2†	142193.6	140050.0	[10695]	ug/L	15:32:02
2	Sc Radial	4823.4	4823.4	102	%	15:29:36
2	Y RADIAL	5103.2	5103.2	101.3	%	15:29:36
2	Al 396.153Radial†	10844.9	10757.6	[10000]	ug/L	15:29:36
2	Ca 317.933Radial†	5749.3	5641.1	[10000]	ug/L	15:29:36
2	Fe 238.204 Radial†	982.1	959.5	[10000]	ug/L	15:29:56
2	K 766.490 Radial†	56046.1	52862.2	[10000]	ug/L	15:29:36
2	Mg 279.077 IEC†	268.0	261.7	[10000]	ug/L	15:29:56
2	Na 589.592 Radial†	31186.9	31435.9	[10000]	ug/L	15:29:36
2	Sr 421.552†	142459.3	140210.7	[1000]	ug/L	15:29:36
2	Sc 361.383	801099.3	801099.3	101.30	%	15:31:05
2	Y 371.029	710073.3	710073.3	100.44	%	15:31:05
2	Ag 328.068†	203282.7	200495.8	[1000]	ug/L	15:31:05
2	As 188.979†	2316.3	2315.1	[1000]	ug/L	15:31:25
2	B 249.677†	40841.7	40541.5	[1000]	ug/L	15:31:05
2	Ba 233.527†	87883.0	86758.5	[1000]	ug/L	15:31:05
2	Be 313.107†	2591301.0	2567357.7	[1000]	ug/L	15:31:00
2	Cd 226.502†	73744.6	72980.2	[1000]	ug/L	15:31:05
2	Co 228.616†	34186.6	33811.9	[1000]	ug/L	15:31:25
2	Cr 267.716†	76376.9	75334.9	[1000]	ug/L	15:31:05
2	Cu 324.752†	285102.2	273717.3	[1000]	ug/L	15:31:05
2	Mn 257.610†	648547.4	639788.8	[1000]	ug/L	15:31:05
2	Mo 202.031†	11279.0	11122.2	[1000]	ug/L	15:31:25
2	Ni 231.604†	33069.3	32564.2	[1000]	ug/L	15:31:05

2	P 214.914†	9609.6	9287.3	[5000]	ug/L	15:31:25
2	Pb 220.353†	6373.6	6349.2	[1000]	ug/L	15:31:25
2	S 181.975 Axial†	1685.3	1622.6	[2000]	ug/L	15:31:25
2	Sb 206.836†	2636.6	2569.9	[1000]	ug/L	15:31:25
2	Se 196.026†	1694.2	1691.4	[1000]	ug/L	15:31:25
2	Si 251.611†	143729.9	141333.0	[5000]	ug/L	15:31:05
2	Sn 189.927†	4467.6	4397.1	[1000]	ug/L	15:31:25
2	Ti 334.940†	513687.5	508425.8	[1000]	ug/L	15:31:05
2	Tl 190.801†	2211.5	2218.8	[1000]	ug/L	15:31:25
2	U 409.014†	28341.1	30345.8	[1000]	ug/L	15:31:05
2	V 292.402†	129428.8	129426.1	[1000]	ug/L	15:31:05
2	Zn 213.857†	95487.1	93463.6	[1000]	ug/L	15:31:05
2	SiO2†	142415.9	140026.8	[10695]	ug/L	15:32:07
3	Sc Radial	4808.8	4808.8	101	%	15:30:01
3	Y RADIAL	5071.1	5071.1	100.6	%	15:30:01
3	Al 396.153Radial†	10809.6	10755.2	[10000]	ug/L	15:30:01
3	Ca 317.933Radial†	5734.7	5643.8	[10000]	ug/L	15:30:01
3	Fe 238.204 Radial†	978.8	959.1	[10000]	ug/L	15:30:21
3	K 766.490 Radial†	56106.1	53089.0	[10000]	ug/L	15:30:01
3	Mg 279.077 IEC†	268.0	262.5	[10000]	ug/L	15:30:21
3	Na 589.592 Radial†	31004.9	31349.3	[10000]	ug/L	15:30:01
3	Sr 421.552†	141951.5	140135.2	[1000]	ug/L	15:30:01
3	Sc 361.383	791236.8	791236.8	100.05	%	15:31:36
3	Y 371.029	700602.8	700602.8	99.097	%	15:31:36
3	Ag 328.068†	200548.0	200263.9	[1000]	ug/L	15:31:36
3	As 188.979†	2306.3	2333.6	[1000]	ug/L	15:31:56
3	B 249.677†	40347.8	40550.4	[1000]	ug/L	15:31:36
3	Ba 233.527†	86647.9	86605.4	[1000]	ug/L	15:31:36
3	Be 313.107†	2551200.0	2559163.0	[1000]	ug/L	15:31:31
3	Cd 226.502†	72914.6	73058.1	[1000]	ug/L	15:31:36
3	Co 228.616†	34043.4	34089.5	[1000]	ug/L	15:31:56
3	Cr 267.716†	75436.3	75334.6	[1000]	ug/L	15:31:36
3	Cu 324.752†	280240.3	272366.1	[1000]	ug/L	15:31:36
3	Mn 257.610†	639829.0	639055.1	[1000]	ug/L	15:31:36
3	Mo 202.031†	11205.9	11187.9	[1000]	ug/L	15:31:56
3	Ni 231.604†	32591.9	32493.9	[1000]	ug/L	15:31:36
3	P 214.914†	9558.1	9354.1	[5000]	ug/L	15:31:56
3	Pb 220.353†	6322.2	6376.3	[1000]	ug/L	15:31:56
3	S 181.975 Axial†	1673.4	1631.4	[2000]	ug/L	15:31:56
3	Sb 206.836†	2628.5	2594.2	[1000]	ug/L	15:31:56
3	Se 196.026†	1696.5	1714.6	[1000]	ug/L	15:31:56
3	Si 251.611†	141386.6	140759.5	[5000]	ug/L	15:31:36
3	Sn 189.927†	4461.0	4445.5	[1000]	ug/L	15:31:56
3	Ti 334.940†	506203.3	507266.3	[1000]	ug/L	15:31:36
3	Tl 190.801†	2208.6	2243.1	[1000]	ug/L	15:31:56
3	U 409.014†	27853.0	30206.7	[1000]	ug/L	15:31:36
3	V 292.402†	127933.6	129524.3	[1000]	ug/L	15:31:36
3	Zn 213.857†	94319.7	93471.8	[1000]	ug/L	15:31:36
3	SiO2†	142569.9	141933.0	[10695]	ug/L	15:32:12

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	797351.0	5339.94	0.67%	100.83	%
Sc Radial	4790.7	44.60	0.93%	101	%
Y 371.029	706284.6	5010.98	0.71%	99.900	%
Y RADIAL	5063.5	44.03	0.87%	100.5	%
Ag 328.068†	200399.7	120.96	0.06%	[1000]	ug/L
Al 396.153Radial†	10768.1	20.32	0.19%	[10000]	ug/L
As 188.979†	2314.2	19.92	0.86%	[1000]	ug/L
B 249.677†	40555.0	16.35	0.04%	[1000]	ug/L
Ba 233.527†	86715.7	96.32	0.11%	[1000]	ug/L
Be 313.107†	2569890.5	12192.90	0.47%	[1000]	ug/L
Ca 317.933Radial†	5654.4	20.78	0.37%	[10000]	ug/L
Cd 226.502†	73055.8	74.47	0.10%	[1000]	ug/L
Co 228.616†	33872.2	194.31	0.57%	[1000]	ug/L
Cr 267.716†	75367.6	56.81	0.08%	[1000]	ug/L
Cu 324.752†	273192.8	724.55	0.27%	[1000]	ug/L
Fe 238.204 Radial†	971.8	21.62	2.22%	[10000]	ug/L
K 766.490 Radial†	53098.0	240.49	0.45%	[10000]	ug/L

Mg 279.077 IEC†	262.9	1.55	0.59%	[10000]	ug/L
Mn 257.610†	639790.2	735.86	0.12%	[1000]	ug/L
Mo 202.031†	11137.3	45.02	0.40%	[1000]	ug/L
Na 589.592 Radial†	31475.3	149.63	0.48%	[10000]	ug/L
Ni 231.604†	32517.4	40.50	0.12%	[1000]	ug/L
P 214.914†	9289.8	63.15	0.68%	[5000]	ug/L
Pb 220.353†	6340.0	41.68	0.66%	[1000]	ug/L
S 181.975 Axial†	1621.7	10.25	0.63%	[2000]	ug/L
Sb 206.836†	2580.2	12.55	0.49%	[1000]	ug/L
Se 196.026†	1695.3	17.70	1.04%	[1000]	ug/L
Si 251.611†	141174.5	362.75	0.26%	[5000]	ug/L
Sn 189.927†	4413.9	27.44	0.62%	[1000]	ug/L
Sr 421.552†	140457.4	494.14	0.35%	[1000]	ug/L
Ti 334.940†	508089.4	716.76	0.14%	[1000]	ug/L
Tl 190.801†	2222.4	19.18	0.86%	[1000]	ug/L
U 409.014†	30307.3	87.93	0.29%	[1000]	ug/L
V 292.402†	129505.6	71.98	0.06%	[1000]	ug/L
Zn 213.857†	93491.0	40.59	0.04%	[1000]	ug/L
SiO2†	140669.9	1093.92	0.78%	[10695]	ug/L

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Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S10 **Date Collected: 3/4/2010 15:34:24**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4666.0	4666.0	98.3	%	15:36:37
1	Y RADIAL	4898.2	4898.2	97.18	%	15:36:37
1	Al 396.153Radial†	53344.3	54363.2	[50000]	ug/L	15:36:17
1	Ca 317.933Radial†	27318.0	27779.2	[50000]	ug/L	15:36:17
1	Fe 238.204 Radial†	1884.5	1910.3	[20000]	ug/L	15:36:37
1	Mg 279.077 IEC†	1240.1	1259.8	[50000]	ug/L	15:36:37
1	Na 589.592 Radial†	64042.5	65903.7	[20000]	ug/L	15:36:17
1	Sc 361.383	784347.7	784347.7	99.183	%	15:37:34
1	Y 371.029	689761.2	689761.2	97.563	%	15:37:34
2	Sc Radial	4632.9	4632.9	97.6	%	15:37:02
2	Y RADIAL	4879.9	4879.9	96.82	%	15:37:02
2	Al 396.153Radial†	53410.5	54818.4	[50000]	ug/L	15:36:42
2	Ca 317.933Radial†	27354.7	28015.3	[50000]	ug/L	15:36:42
2	Fe 238.204 Radial†	1895.1	1934.8	[20000]	ug/L	15:37:02
2	Mg 279.077 IEC†	1241.8	1270.5	[50000]	ug/L	15:37:02
2	Na 589.592 Radial†	64329.2	66662.6	[20000]	ug/L	15:36:42
2	Sc 361.383	781601.7	781601.7	98.835	%	15:37:40
2	Y 371.029	687663.7	687663.7	97.266	%	15:37:40
3	Sc Radial	4657.1	4657.1	98.1	%	15:37:27
3	Y RADIAL	4875.0	4875.0	96.72	%	15:37:27
3	Al 396.153Radial†	53651.6	54780.2	[50000]	ug/L	15:37:07
3	Ca 317.933Radial†	27484.3	28001.9	[50000]	ug/L	15:37:07
3	Fe 238.204 Radial†	1893.9	1923.6	[20000]	ug/L	15:37:27
3	Mg 279.077 IEC†	1248.0	1270.2	[50000]	ug/L	15:37:27
3	Na 589.592 Radial†	64699.2	66697.7	[20000]	ug/L	15:37:07
3	Sc 361.383	791424.5	791424.5	100.08	%	15:37:45
3	Y 371.029	696608.7	696608.7	98.532	%	15:37:45

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	785791.3	5068.03	0.64%	99.365	%
Sc Radial	4652.0	17.11	0.37%	98.0	%
Y 371.029	691344.5	4677.97	0.68%	97.787	%
Y RADIAL	4884.4	12.24	0.25%	96.91	%
Al 396.153Radial†	54653.9	252.49	0.46%	[50000]	ug/L
Ca 317.933Radial†	27932.2	132.60	0.47%	[50000]	ug/L
Fe 238.204 Radial†	1922.9	12.30	0.64%	[20000]	ug/L
Mg 279.077 IEC†	1266.8	6.14	0.48%	[50000]	ug/L
Na 589.592 Radial†	66421.3	448.61	0.68%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	199.1	0.00000	0.999914	
Al 396.153Radial	3	Lin Thru 0	0.0	1.092	0.00000	0.999991	
As 188.979	3	Lin Thru 0	0.0	2.300	0.00000	0.999927	
B 249.677	3	Lin Thru 0	0.0	40.21	0.00000	0.999859	
Ba 233.527	3	Lin Thru 0	0.0	86.23	0.00000	0.999937	
Be 313.107	3	Lin Thru 0	0.0	2556	0.00000	0.999941	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5588	0.00000	0.999996	
Cd 226.502	3	Lin Thru 0	0.0	72.74	0.00000	0.999961	
Co 228.616	3	Lin Thru 0	0.0	33.61	0.00000	0.999879	
Cr 267.716	3	Lin Thru 0	0.0	74.99	0.00000	0.999949	
Cu 324.752	3	Lin Thru 0	0.0	271.1	0.00000	0.999887	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0964	0.00000	0.999991	
K 766.490 Radial	3	Lin Thru 0	0.0	5.296	0.00000	0.999986	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0254	0.00000	0.999973
Mn 257.610	3	Lin Thru 0	0.0	636.5	0.00000	0.999941
Mo 202.031	3	Lin Thru 0	0.0	11.06	0.00000	0.999902
Na 589.592 Radia	2	Lin Thru 0	0.0	3.286	0.00000	0.999777
Ni 231.604	3	Lin Thru 0	0.0	32.39	0.00000	0.999971
P 214.914	3	Lin Thru 0	0.0	1.843	0.00000	0.999878
Pb 220.353	3	Lin Thru 0	0.0	6.300	0.00000	0.999920
S 181.975 Axial	3	Lin Thru 0	0.0	0.8050	0.00000	0.999893
Sb 206.836	3	Lin Thru 0	0.0	2.551	0.00000	0.999741
Se 196.026	3	Lin Thru 0	0.0	1.684	0.00000	0.999919
Si 251.611	3	Lin Thru 0	0.0	28.04	0.00000	0.999901
Sn 189.927	3	Lin Thru 0	0.0	4.376	0.00000	0.999851
Sr 421.552	3	Lin Thru 0	0.0	140.3	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	504.8	0.00000	0.999910
Tl 190.801	3	Lin Thru 0	0.0	2.206	0.00000	0.999891
U 409.014	3	Lin Thru 0	0.0	30.16	0.00000	0.999953
V 292.402	3	Lin Thru 0	0.0	128.8	0.00000	0.999937
Zn 213.857	3	Lin Thru 0	0.0	93.07	0.00000	0.999933
SiO2	3	Lin Thru 0	0.0	13.07	0.00000	0.999907

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/4/2010 15:39:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4988.2	4988.2	105	%			15:41:50
1	Y RADIAL	5287.0	5287.0	104.9	%			15:41:50
1	Al 396.153Radial†	5469.9	5288.9	4817.6	ug/L	4817.6	ppb	15:41:50
1	Ca 317.933Radial†	2870.4	2713.8	4856.5	ug/L	4856.5	ppb	15:42:10
1	Fe 238.204 Radial†	513.0	481.0	5007.3	ug/L	5007.3	ppb	15:42:10
1	K 766.490 Radial†	15992.1	12914.9	2435.4	ug/L	2435.4	ppb	15:41:50
1	Mg 279.077 IEC†	138.0	129.2	5093.3	ug/L	5093.3	ppb	15:42:10
1	Na 589.592 Radial†	7648.3	8016.9	2439.5	ug/L	2439.5	ppb	15:41:50
1	Sr 421.552†	77289.8	73547.3	524.05	ug/L	524.05	ppb	15:41:50
1	Sc 361.383	820732.0	820732.0	103.78	%			15:43:07
1	Y 371.029	727403.6	727403.6	102.89	%			15:43:07
1	Ag 328.068†	50821.7	48792.5	248.17	ug/L	248.17	ppb	15:43:07
1	As 188.979†	1088.4	1077.4	472.45	ug/L	472.45	ppb	15:43:27
1	B 249.677†	20936.2	20397.2	504.98	ug/L	504.98	ppb	15:43:07
1	Ba 233.527†	44703.3	43077.7	500.79	ug/L	500.79	ppb	15:43:07
1	Be 313.107†	664434.6	649545.0	255.23	ug/L	255.23	ppb	15:43:07
1	Cd 226.502†	36374.3	35230.9	484.20	ug/L	484.20	ppb	15:43:27
1	Co 228.616†	17638.7	17060.0	507.72	ug/L	507.72	ppb	15:43:27
1	Cr 267.716†	37421.1	35995.7	480.59	ug/L	480.59	ppb	15:43:07
1	Cu 324.752†	146969.9	133888.4	493.84	ug/L	493.84	ppb	15:43:07
1	Mn 257.610†	334413.2	321791.6	505.84	ug/L	505.84	ppb	15:43:07
1	Mo 202.031†	5978.9	5749.0	520.20	ug/L	520.20	ppb	15:43:27
1	Ni 231.604†	16526.1	15843.1	488.82	ug/L	488.82	ppb	15:43:27
1	P 214.914†	4939.5	4560.6	2378.0	ug/L	2378.0	ppb	15:43:27
1	Pb 220.353†	3170.4	3112.3	495.90	ug/L	495.90	ppb	15:43:27
1	S 181.975 Axial†	2072.7	1956.1	2429.0	ug/L	2429.0	ppb	15:43:27
1	Sb 206.836†	1325.2	1244.0	506.43	ug/L	506.43	ppb	15:43:27
1	Se 196.026†	4357.4	4217.5	2517.2	ug/L	2517.2	ppb	15:43:27
1	Si 251.611†	139303.2	133673.7	4760.9	ug/L	4760.9	ppb	15:43:07
1	Sn 189.927†	2376.6	2276.9	520.93	ug/L	520.93	ppb	15:43:27
1	Ti 334.940†	253688.1	245774.6	486.76	ug/L	486.76	ppb	15:43:07
1	Tl 190.801†	1140.2	1134.3	517.54	ug/L	517.54	ppb	15:43:27
1	U 409.014†	12088.4	14016.3	463.11	ug/L	463.11	ppb	15:43:07
1	V 292.402†	64360.0	63673.1	501.36	ug/L	501.36	ppb	15:43:07
1	Zn 213.857†	48761.3	46186.4	491.75	ug/L	491.75	ppb	15:43:07
1	SiO2†	141021.6	135320.3	10341	ug/L	10341	ppb	15:44:25
2	Sc Radial	4910.3	4910.3	103	%			15:42:15
2	Y RADIAL	5178.2	5178.2	102.7	%			15:42:15
2	Al 396.153Radial†	5427.9	5330.9	4855.9	ug/L	4855.9	ppb	15:42:15
2	Ca 317.933Radial†	2845.5	2733.1	4891.0	ug/L	4891.0	ppb	15:42:35
2	Fe 238.204 Radial†	515.0	490.7	5108.4	ug/L	5108.4	ppb	15:42:35
2	K 766.490 Radial†	15825.7	12995.6	2450.6	ug/L	2450.6	ppb	15:42:15
2	Mg 279.077 IEC†	139.4	132.7	5230.2	ug/L	5230.2	ppb	15:42:35
2	Na 589.592 Radial†	7516.1	8004.6	2435.7	ug/L	2435.7	ppb	15:42:15
2	Sr 421.552†	76025.5	73492.3	523.66	ug/L	523.66	ppb	15:42:15
2	Sc 361.383	817598.5	817598.5	103.39	%			15:43:33
2	Y 371.029	724041.5	724041.5	102.41	%			15:43:33
2	Ag 328.068†	50821.8	48980.3	249.15	ug/L	249.15	ppb	15:43:33
2	As 188.979†	1099.6	1092.2	478.95	ug/L	478.95	ppb	15:43:53
2	B 249.677†	20913.7	20452.8	506.34	ug/L	506.34	ppb	15:43:33
2	Ba 233.527†	44725.1	43263.9	502.96	ug/L	502.96	ppb	15:43:33
2	Be 313.107†	661765.3	649416.8	255.18	ug/L	255.18	ppb	15:43:33
2	Cd 226.502†	36339.0	35331.1	485.57	ug/L	485.57	ppb	15:43:53
2	Co 228.616†	17630.2	17117.0	509.41	ug/L	509.41	ppb	15:43:53
2	Cr 267.716†	37337.9	36053.4	481.36	ug/L	481.36	ppb	15:43:33
2	Cu 324.752†	146854.3	134319.3	495.44	ug/L	495.44	ppb	15:43:33
2	Mn 257.610†	334036.3	322662.1	507.21	ug/L	507.21	ppb	15:43:33
2	Mo 202.031†	5989.9	5781.7	523.17	ug/L	523.17	ppb	15:43:53
2	Ni 231.604†	16509.8	15888.4	490.21	ug/L	490.21	ppb	15:43:53

2	P 214.914†	4957.4	4596.2	2396.9 ug/L	2396.9 ppb	15:43:53
2	Pb 220.353†	3165.0	3118.8	496.94 ug/L	496.94 ppb	15:43:53
2	S 181.975 Axial†	2063.1	1954.5	2426.9 ug/L	2426.9 ppb	15:43:53
2	Sb 206.836†	1328.1	1251.7	509.55 ug/L	509.55 ppb	15:43:53
2	Se 196.026†	4330.0	4207.1	2511.3 ug/L	2511.3 ppb	15:43:53
2	Si 251.611†	139061.6	133954.5	4770.8 ug/L	4770.8 ppb	15:43:33
2	Sn 189.927†	2378.2	2287.2	523.29 ug/L	523.29 ppb	15:43:53
2	Ti 334.940†	253512.9	246541.9	488.28 ug/L	488.28 ppb	15:43:33
2	Tl 190.801†	1147.3	1145.4	522.59 ug/L	522.59 ppb	15:43:53
2	U 409.014†	12074.8	14047.8	464.14 ug/L	464.14 ppb	15:43:33
2	V 292.402†	64191.6	63747.8	501.97 ug/L	501.97 ppb	15:43:33
2	Zn 213.857†	48674.7	46282.7	492.76 ug/L	492.76 ppb	15:43:33
2	SiO2†	142135.1	136918.1	10463 ug/L	10463 ppb	15:44:30
3	Sc Radial	4898.5	4898.5	103 %		15:42:40
3	Y RADIAL	5184.1	5184.1	102.9 %		15:42:40
3	Al 396.153Radial†	5426.8	5342.4	4866.3 ug/L	4866.3 ppb	15:42:40
3	Ca 317.933Radial†	2855.6	2749.5	4920.4 ug/L	4920.4 ppb	15:43:00
3	Fe 238.204 Radial†	507.9	485.0	5049.1 ug/L	5049.1 ppb	15:43:00
3	K 766.490 Radial†	15837.9	13044.2	2459.7 ug/L	2459.7 ppb	15:42:40
3	Mg 279.077 IEC†	138.7	132.3	5215.0 ug/L	5215.0 ppb	15:43:00
3	Na 589.592 Radial†	7365.7	7876.3	2396.7 ug/L	2396.7 ppb	15:42:40
3	Sr 421.552†	75943.0	73588.8	524.35 ug/L	524.35 ppb	15:42:40
3	Sc 361.383	814636.2	814636.2	103.01 %		15:43:59
3	Y 371.029	720999.8	720999.8	101.98 %		15:43:59
3	Ag 328.068†	50544.4	48889.7	248.67 ug/L	248.67 ppb	15:43:59
3	As 188.979†	1095.3	1091.8	478.75 ug/L	478.75 ppb	15:44:19
3	B 249.677†	20751.0	20368.4	504.24 ug/L	504.24 ppb	15:43:59
3	Ba 233.527†	44485.9	43188.9	502.09 ug/L	502.09 ppb	15:43:59
3	Be 313.107†	657290.6	647400.5	254.39 ug/L	254.39 ppb	15:43:59
3	Cd 226.502†	36487.2	35602.8	489.32 ug/L	489.32 ppb	15:44:19
3	Co 228.616†	17731.4	17277.2	514.19 ug/L	514.19 ppb	15:44:19
3	Cr 267.716†	37092.4	35946.4	479.93 ug/L	479.93 ppb	15:43:59
3	Cu 324.752†	145897.9	133907.3	493.91 ug/L	493.91 ppb	15:43:59
3	Mn 257.610†	332515.9	322360.9	506.73 ug/L	506.73 ppb	15:43:59
3	Mo 202.031†	6012.2	5824.4	527.03 ug/L	527.03 ppb	15:44:19
3	Ni 231.604†	16572.8	16007.6	493.89 ug/L	493.89 ppb	15:44:19
3	P 214.914†	4963.7	4619.7	2410.1 ug/L	2410.1 ppb	15:44:19
3	Pb 220.353†	3192.2	3156.3	502.91 ug/L	502.91 ppb	15:44:19
3	S 181.975 Axial†	2069.2	1967.6	2443.3 ug/L	2443.3 ppb	15:44:19
3	Sb 206.836†	1325.5	1253.9	510.55 ug/L	510.55 ppb	15:44:19
3	Se 196.026†	4378.2	4269.1	2548.0 ug/L	2548.0 ppb	15:44:19
3	Si 251.611†	138351.7	133754.4	4763.7 ug/L	4763.7 ppb	15:43:59
3	Sn 189.927†	2387.9	2305.0	527.37 ug/L	527.37 ppb	15:44:19
3	Ti 334.940†	252134.0	246095.0	487.40 ug/L	487.40 ppb	15:43:59
3	Tl 190.801†	1149.5	1151.5	525.32 ug/L	525.32 ppb	15:44:19
3	U 409.014†	12026.4	14043.3	464.00 ug/L	464.00 ppb	15:43:59
3	V 292.402†	63898.1	63688.7	501.58 ug/L	501.58 ppb	15:43:59
3	Zn 213.857†	48456.7	46242.3	492.31 ug/L	492.31 ppb	15:43:59
3	SiO2†	136914.7	132350.3	10113 ug/L	10113 ppb	15:44:35

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	817655.6	103.39	%	0.385				0.37%
Sc Radial	4932.3	104	%	1.0				0.99%
Y 371.029	724148.3	102.43	%	0.453				0.44%
Y RADIAL	5216.5	103.5	%	1.21				1.17%
Ag 328.068†	48887.5	248.67	ug/L	0.488	248.67	ppb	0.488	0.20%
QC value within limits for Ag 328.068 Recovery = 99.47%								
Al 396.153Radial†	5320.7	4846.6	ug/L	25.67	4846.6	ppb	25.67	0.53%
QC value within limits for Al 396.153Radial Recovery = 96.93%								
As 188.979†	1087.1	476.72	ug/L	3.697	476.72	ppb	3.697	0.78%
QC value within limits for As 188.979 Recovery = 95.34%								
B 249.677†	20406.1	505.19	ug/L	1.067	505.19	ppb	1.067	0.21%
QC value within limits for B 249.677 Recovery = 101.04%								
Ba 233.527†	43176.8	501.95	ug/L	1.089	501.95	ppb	1.089	0.22%
QC value within limits for Ba 233.527 Recovery = 100.39%								
Be 313.107†	648787.4	254.94	ug/L	0.471	254.94	ppb	0.471	0.18%
QC value within limits for Be 313.107 Recovery = 101.97%								
Ca 317.933Radial†	2732.2	4889.3	ug/L	32.01	4889.3	ppb	32.01	0.65%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.79%
Cd 226.502†            35388.3      486.36 ug/L         2.646      486.36 ppb          2.646   0.54%
   QC value within limits for Cd 226.502  Recovery = 97.27%
Co 228.616†            17151.4      510.44 ug/L         3.358      510.44 ppb          3.358   0.66%
   QC value within limits for Co 228.616  Recovery = 102.09%
Cr 267.716†            35998.5      480.63 ug/L         0.715      480.63 ppb          0.715   0.15%
   QC value within limits for Cr 267.716  Recovery = 96.13%
Cu 324.752†           134038.3      494.40 ug/L         0.900      494.40 ppb          0.900   0.18%
   QC value within limits for Cu 324.752  Recovery = 98.88%
Fe 238.204 Radial†       485.6      5054.9 ug/L         50.76      5054.9 ppb          50.76   1.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.10%
K 766.490 Radial†      12984.9      2448.6 ug/L         12.32      2448.6 ppb          12.32   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 97.94%
Mg 279.077 IEC†          131.4      5179.5 ug/L         75.02      5179.5 ppb          75.02   1.45%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.59%
Mn 257.610†           322271.5      506.60 ug/L         0.696      506.60 ppb          0.696   0.14%
   QC value within limits for Mn 257.610  Recovery = 101.32%
Mo 202.031†             5785.0      523.47 ug/L         3.422      523.47 ppb          3.422   0.65%
   QC value within limits for Mo 202.031  Recovery = 104.69%
Na 589.592 Radial†      7966.0      2423.9 ug/L         23.70      2423.9 ppb          23.70   0.98%
   QC value within limits for Na 589.592 Radial  Recovery = 96.96%
Ni 231.604†            15913.1      490.97 ug/L         2.622      490.97 ppb          2.622   0.53%
   QC value within limits for Ni 231.604  Recovery = 98.19%
P 214.914†              4592.2      2395.0 ug/L         16.12      2395.0 ppb          16.12   0.67%
   QC value within limits for P 214.914  Recovery = 95.80%
Pb 220.353†             3129.2      498.58 ug/L         3.784      498.58 ppb          3.784   0.76%
   QC value within limits for Pb 220.353  Recovery = 99.72%
S 181.975 Axial†        1959.4      2433.1 ug/L          8.88      2433.1 ppb           8.88   0.37%
   QC value within limits for S 181.975 Axial  Recovery = 97.32%
Sb 206.836†             1249.9      508.84 ug/L         2.149      508.84 ppb          2.149   0.42%
   QC value within limits for Sb 206.836  Recovery = 101.77%
Se 196.026†             4231.2      2525.5 ug/L         19.69      2525.5 ppb          19.69   0.78%
   QC value within limits for Se 196.026  Recovery = 101.02%
Si 251.611†           133794.2      4765.1 ug/L          5.15      4765.1 ppb           5.15   0.11%
   QC value within limits for Si 251.611  Recovery = 95.30%
Sn 189.927†             2289.7      523.87 ug/L         3.257      523.87 ppb          3.257   0.62%
   QC value within limits for Sn 189.927  Recovery = 104.77%
Sr 421.552†            73542.8      524.02 ug/L         0.345      524.02 ppb          0.345   0.07%
   QC value within limits for Sr 421.552  Recovery = 104.80%
Ti 334.940†           246137.2      487.48 ug/L         0.760      487.48 ppb          0.760   0.16%
   QC value within limits for Ti 334.940  Recovery = 97.50%
Tl 190.801†             1143.8      521.82 ug/L         3.949      521.82 ppb          3.949   0.76%
   QC value within limits for Tl 190.801  Recovery = 104.36%
U 409.014†             14035.8      463.75 ug/L         0.559      463.75 ppb          0.559   0.12%
   QC value within limits for U 409.014  Recovery = 92.75%
V 292.402†             63703.2      501.64 ug/L         0.310      501.64 ppb          0.310   0.06%
   QC value within limits for V 292.402  Recovery = 100.33%
Zn 213.857†            46237.1      492.27 ug/L         0.505      492.27 ppb          0.505   0.10%
   QC value within limits for Zn 213.857  Recovery = 98.45%
SiO2†                 134862.9       10306 ug/L         177.4       10306 ppb          177.4   1.72%
   QC value within limits for SiO2  Recovery = 96.36%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/4/2010 15:46:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4835.2	4835.2	102	%			15:48:39
1	Y RADIAL	5137.4	5137.4	101.9	%			15:48:39
1	Al 396.153Radial†	-68.9	14.8	13.537	ug/L	13.537	ppb	15:48:59
1	Ca 317.933Radial†	60.2	40.8	73.057	ug/L	73.057	ppb	15:48:59
1	Fe 238.204 Radial†	6.8	-0.6	-6.0410	ug/L	-6.0410	ppb	15:48:59
1	K 766.490 Radial†	2387.7	37.8	7.1149	ug/L	7.1149	ppb	15:48:39
1	Mg 279.077 IEC†	-1.3	-3.3	-131.94	ug/L	-131.94	ppb	15:48:59
1	Na 589.592 Radial†	-690.6	58.9	17.931	ug/L	17.931	ppb	15:48:39
1	Sr 421.552†	59.4	39.4	0.2800	ug/L	0.2800	ppb	15:48:39
1	Sc 361.383	810061.5	810061.5	102.43	%			15:49:56
1	Y 371.029	728051.4	728051.4	102.98	%			15:49:56
1	Ag 328.068†	206.3	24.9	0.1217	ug/L	0.1217	ppb	15:49:56
1	As 188.979†	-40.4	-10.9	-4.7180	ug/L	-4.7180	ppb	15:50:16
1	B 249.677†	-49.2	176.3	4.3832	ug/L	4.3832	ppb	15:50:16
1	Ba 233.527†	7.8	11.6	0.1348	ug/L	0.1348	ppb	15:50:16
1	Be 313.107†	-9225.1	326.6	0.1285	ug/L	0.1285	ppb	15:49:56
1	Cd 226.502†	-166.5	20.1	0.2770	ug/L	0.2770	ppb	15:50:16
1	Co 228.616†	-54.4	11.3	0.3362	ug/L	0.3362	ppb	15:50:16
1	Cr 267.716†	65.3	2.5	0.0328	ug/L	0.0328	ppb	15:50:16
1	Cu 324.752†	7998.0	84.2	0.3095	ug/L	0.3095	ppb	15:49:56
1	Mn 257.610†	607.0	162.1	0.2594	ug/L	0.2594	ppb	15:50:16
1	Mo 202.031†	17.4	5.0	0.4549	ug/L	0.4549	ppb	15:50:16
1	Ni 231.604†	79.8	-2.6	-0.0798	ug/L	-0.0798	ppb	15:50:16
1	P 214.914†	208.5	4.7	2.4883	ug/L	2.4883	ppb	15:50:16
1	Pb 220.353†	-48.6	10.1	1.6053	ug/L	1.6053	ppb	15:50:16
1	S 181.975 Axial†	42.8	0.7	0.9249	ug/L	0.9249	ppb	15:50:16
1	Sb 206.836†	40.3	6.5	2.5430	ug/L	2.5430	ppb	15:50:16
1	Se 196.026†	-21.5	-2.0	-1.2007	ug/L	-1.2007	ppb	15:50:16
1	Si 251.611†	845.6	274.3	9.7782	ug/L	9.7782	ppb	15:50:16
1	Sn 189.927†	10.6	-2.8	-0.6177	ug/L	-0.6177	ppb	15:50:16
1	Ti 334.940†	-1212.5	151.0	0.3192	ug/L	0.3192	ppb	15:49:56
1	Tl 190.801†	-34.4	2.1	0.9479	ug/L	0.9479	ppb	15:50:16
1	U 409.014†	-2388.6	36.7	1.2189	ug/L	1.2189	ppb	15:49:56
1	V 292.402†	-1682.4	16.9	0.1381	ug/L	0.1381	ppb	15:49:56
1	Zn 213.857†	1169.8	344.7	3.7046	ug/L	3.7046	ppb	15:50:16
1	SiO2†	854.7	274.1	20.961	ug/L	20.961	ppb	15:51:12
2	Sc Radial	4828.6	4828.6	102	%			15:49:04
2	Y RADIAL	5121.8	5121.8	101.6	%			15:49:04
2	Al 396.153Radial†	-68.8	14.9	13.583	ug/L	13.583	ppb	15:49:24
2	Ca 317.933Radial†	64.8	45.5	81.406	ug/L	81.406	ppb	15:49:24
2	Fe 238.204 Radial†	9.1	1.7	17.136	ug/L	17.136	ppb	15:49:24
2	K 766.490 Radial†	2398.9	52.0	9.7957	ug/L	9.7957	ppb	15:49:04
2	Mg 279.077 IEC†	-2.3	-4.3	-170.93	ug/L	-170.93	ppb	15:49:24
2	Na 589.592 Radial†	-714.9	34.1	10.376	ug/L	10.376	ppb	15:49:04
2	Sr 421.552†	33.6	14.1	0.1002	ug/L	0.1002	ppb	15:49:04
2	Sc 361.383	801135.0	801135.0	101.31	%			15:50:21
2	Y 371.029	718298.5	718298.5	101.60	%			15:50:21
2	Ag 328.068†	216.5	37.2	0.1921	ug/L	0.1921	ppb	15:50:21
2	As 188.979†	-20.7	8.2	3.5480	ug/L	3.5480	ppb	15:50:41
2	B 249.677†	-76.7	148.6	3.6919	ug/L	3.6919	ppb	15:50:41
2	Ba 233.527†	4.2	8.1	0.0955	ug/L	0.0955	ppb	15:50:41
2	Be 313.107†	-9267.2	184.7	0.0725	ug/L	0.0725	ppb	15:50:21
2	Cd 226.502†	-188.3	-3.2	-0.0455	ug/L	-0.0455	ppb	15:50:41
2	Co 228.616†	-65.9	-0.7	-0.0191	ug/L	-0.0191	ppb	15:50:41
2	Cr 267.716†	81.9	19.6	0.2625	ug/L	0.2625	ppb	15:50:41
2	Cu 324.752†	7922.8	97.0	0.3586	ug/L	0.3586	ppb	15:50:21
2	Mn 257.610†	578.8	140.9	0.2300	ug/L	0.2300	ppb	15:50:41
2	Mo 202.031†	17.6	5.3	0.4860	ug/L	0.4860	ppb	15:50:41
2	Ni 231.604†	106.0	24.2	0.7461	ug/L	0.7461	ppb	15:50:41

2	P 214.914†	204.1	2.6	1.3723 ug/L	1.3723 ppb	15:50:41
2	Pb 220.353†	-53.2	5.0	0.8012 ug/L	0.8012 ppb	15:50:41
2	S 181.975 Axial†	49.4	7.7	9.5948 ug/L	9.5948 ppb	15:50:41
2	Sb 206.836†	39.9	6.5	2.5940 ug/L	2.5940 ppb	15:50:41
2	Se 196.026†	-19.6	-0.4	-0.2115 ug/L	-0.2115 ppb	15:50:41
2	Si 251.611†	837.0	275.0	9.8031 ug/L	9.8031 ppb	15:50:41
2	Sn 189.927†	21.3	8.0	1.8317 ug/L	1.8317 ppb	15:50:41
2	Ti 334.940†	-1312.4	39.2	0.1025 ug/L	0.1025 ppb	15:50:21
2	Tl 190.801†	-26.9	9.2	4.1576 ug/L	4.1576 ppb	15:50:41
2	U 409.014†	-2399.1	0.4	0.0100 ug/L	0.0100 ppb	15:50:21
2	V 292.402†	-1650.8	29.8	0.2322 ug/L	0.2322 ppb	15:50:21
2	Zn 213.857†	1157.4	345.2	3.7017 ug/L	3.7017 ppb	15:50:41
2	SiO2†	862.8	291.3	22.279 ug/L	22.279 ppb	15:51:17
3	Sc Radial	4855.7	4855.7	102 %		15:49:29
3	Y RADIAL	5159.0	5159.0	102.4 %		15:49:29
3	Al 396.153Radial†	-58.7	25.1	22.917 ug/L	22.917 ppb	15:49:49
3	Ca 317.933Radial†	53.9	34.4	61.605 ug/L	61.605 ppb	15:49:49
3	Fe 238.204 Radial†	9.9	2.4	24.762 ug/L	24.762 ppb	15:49:49
3	K 766.490 Radial†	2384.2	24.5	4.5988 ug/L	4.5988 ppb	15:49:29
3	Mg 279.077 IEC†	0.5	-1.6	-63.817 ug/L	-63.817 ppb	15:49:49
3	Na 589.592 Radial†	-732.1	21.2	6.4555 ug/L	6.4555 ppb	15:49:29
3	Sr 421.552†	-4.5	-23.3	-0.1665 ug/L	-0.1665 ppb	15:49:29
3	Sc 361.383	795590.6	795590.6	100.60 %		15:50:47
3	Y 371.029	713000.1	713000.1	100.85 %		15:50:47
3	Ag 328.068†	254.0	76.0	0.3897 ug/L	0.3897 ppb	15:50:47
3	As 188.979†	-22.7	6.0	2.6182 ug/L	2.6182 ppb	15:51:07
3	B 249.677†	-113.3	111.6	2.7696 ug/L	2.7696 ppb	15:51:07
3	Ba 233.527†	6.6	10.5	0.1238 ug/L	0.1238 ppb	15:51:07
3	Be 313.107†	-9143.6	243.8	0.0956 ug/L	0.0956 ppb	15:50:47
3	Cd 226.502†	-165.2	18.4	0.2509 ug/L	0.2509 ppb	15:51:07
3	Co 228.616†	-47.8	16.9	0.5048 ug/L	0.5048 ppb	15:51:07
3	Cr 267.716†	75.6	13.9	0.1865 ug/L	0.1865 ppb	15:51:07
3	Cu 324.752†	7880.9	109.8	0.4063 ug/L	0.4063 ppb	15:50:47
3	Mn 257.610†	597.5	163.4	0.2618 ug/L	0.2618 ppb	15:51:07
3	Mo 202.031†	28.4	16.2	1.4696 ug/L	1.4696 ppb	15:51:07
3	Ni 231.604†	89.8	8.8	0.2715 ug/L	0.2715 ppb	15:51:07
3	P 214.914†	209.4	9.4	4.9753 ug/L	4.9753 ppb	15:51:07
3	Pb 220.353†	-74.4	-16.4	-2.6010 ug/L	-2.6010 ppb	15:51:07
3	S 181.975 Axial†	42.5	1.2	1.5008 ug/L	1.5008 ppb	15:51:07
3	Sb 206.836†	30.2	-2.8	-1.0842 ug/L	-1.0842 ppb	15:51:07
3	Se 196.026†	-25.0	-5.8	-3.4099 ug/L	-3.4099 ppb	15:51:07
3	Si 251.611†	837.6	281.5	10.019 ug/L	10.019 ppb	15:51:07
3	Sn 189.927†	11.7	-1.4	-0.3106 ug/L	-0.3106 ppb	15:51:07
3	Ti 334.940†	-1286.3	56.2	0.1245 ug/L	0.1245 ppb	15:50:47
3	Tl 190.801†	-30.5	5.4	2.4566 ug/L	2.4566 ppb	15:51:07
3	U 409.014†	-2371.8	11.1	0.3633 ug/L	0.3633 ppb	15:50:47
3	V 292.402†	-1628.0	41.1	0.3359 ug/L	0.3359 ppb	15:50:47
3	Zn 213.857†	1166.6	362.3	3.8867 ug/L	3.8867 ppb	15:51:07
3	SiO2†	832.4	267.1	20.399 ug/L	20.399 ppb	15:51:22

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	802262.4	101.45	%	0.923				0.91%
Sc Radial	4839.8	102	%	0.3				0.29%
Y 371.029	719783.3	101.81	%	1.080				1.06%
Y RADIAL	5139.4	102.0	%	0.37				0.36%
Ag 328.068†	46.1	0.2345	ug/L	0.13892	0.2345	ppb	0.13892	59.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.3	16.679	ug/L	5.4023	16.679	ppb	5.4023	32.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.1	0.4827	ug/L	4.52788	0.4827	ppb	4.52788	938.01%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	145.5	3.6149	ug/L	0.80955	3.6149	ppb	0.80955	22.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.1180	ug/L	0.02031	0.1180	ppb	0.02031	17.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	251.7	0.0989	ug/L	0.02814	0.0989	ppb	0.02814	28.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.2	72.023	ug/L	9.9411	72.023	ppb	9.9411	13.80%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.8      0.1608 ug/L       0.17917      0.1608 ppb        0.17917 111.42%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.2      0.2740 ug/L       0.26745      0.2740 ppb        0.26745  97.61%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.0      0.1606 ug/L       0.11703      0.1606 ppb        0.11703  72.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                97.0      0.3581 ug/L       0.04836      0.3581 ppb        0.04836  13.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      11.952 ug/L       16.0423      11.952 ppb        16.0423 134.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          38.1      7.1698 ug/L       2.59887      7.1698 ppb        2.59887  36.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.1     -122.23 ug/L        54.213     -122.23 ppb         54.213  44.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               155.5      0.2504 ug/L       0.01769      0.2504 ppb        0.01769   7.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.9      0.8035 ug/L       0.57710      0.8035 ppb        0.57710  71.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         38.1      11.587 ug/L        5.8326      11.587 ppb         5.8326  50.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.1      0.3126 ug/L       0.41445      0.3126 ppb        0.41445 132.57%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.6      2.9453 ug/L       1.84451      2.9453 ppb        1.84451  62.63%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -0.4     -0.0648 ug/L       2.23286     -0.0648 ppb        2.23286 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.2      4.0069 ug/L       4.84788      4.0069 ppb        4.84788 120.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.4      1.3509 ug/L       2.10907      1.3509 ppb        2.10907 156.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.8     -1.6074 ug/L       1.63753     -1.6074 ppb        1.63753 101.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               276.9      9.8669 ug/L       0.13271      9.8669 ppb        0.13271   1.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.3      0.3011 ug/L       1.33439      0.3011 ppb        1.33439 443.16%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.1      0.0712 ug/L       0.22465      0.0712 ppb        0.22465 315.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                82.1      0.1821 ug/L       0.11927      0.1821 ppb        0.11927  65.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6      2.5207 ug/L       1.60584      2.5207 ppb        1.60584  63.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 16.1      0.5307 ug/L       0.62159      0.5307 ppb        0.62159 117.12%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 29.3      0.2354 ug/L       0.09891      0.2354 ppb        0.09891  42.02%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               350.7      3.7643 ug/L       0.10601      3.7643 ppb        0.10601   2.82%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     277.5      21.213 ug/L        0.9649      21.213 ppb         0.9649   4.55%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/4/2010 15:53:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4875.4	4875.4	103	%			15:55:27
1	Y RADIAL	5161.6	5161.6	102.4	%			15:55:27
1	Al 396.153Radial†	143.7	222.4	203.13	ug/L	203.13	ppb	15:55:47
1	Ca 317.933Radial†	135.8	114.0	203.92	ug/L	203.92	ppb	15:55:47
1	Fe 238.204 Radial†	17.9	10.2	105.97	ug/L	105.97	ppb	15:55:47
1	K 766.490 Radial†	3150.1	761.0	143.51	ug/L	143.51	ppb	15:55:27
1	Mg 279.077 IEC†	10.8	8.4	332.04	ug/L	332.04	ppb	15:55:47
1	Na 589.592 Radial†	224.9	956.1	290.92	ug/L	290.92	ppb	15:55:27
1	Sr 421.552†	763.3	724.4	5.1602	ug/L	5.1602	ppb	15:55:27
1	Sc 361.383	799952.9	799952.9	101.16	%			15:56:44
1	Y 371.029	716565.4	716565.4	101.35	%			15:56:44
1	Ag 328.068†	1229.2	1038.7	5.2272	ug/L	5.2272	ppb	15:56:44
1	As 188.979†	27.8	56.1	24.451	ug/L	24.451	ppb	15:57:04
1	B 249.677†	1809.4	2013.0	50.028	ug/L	50.028	ppb	15:56:44
1	Ba 233.527†	439.4	438.4	5.0984	ug/L	5.0984	ppb	15:57:04
1	Be 313.107†	3295.2	12590.0	4.9374	ug/L	4.9374	ppb	15:56:44
1	Cd 226.502†	179.8	360.4	4.9555	ug/L	4.9555	ppb	15:57:04
1	Co 228.616†	105.9	169.0	5.0405	ug/L	5.0405	ppb	15:57:04
1	Cr 267.716†	445.0	378.7	5.0397	ug/L	5.0397	ppb	15:57:04
1	Cu 324.752†	10521.9	2677.9	9.8559	ug/L	9.8559	ppb	15:56:44
1	Mn 257.610†	7101.5	6589.9	10.350	ug/L	10.350	ppb	15:56:44
1	Mo 202.031†	126.4	113.0	10.227	ug/L	10.227	ppb	15:57:04
1	Ni 231.604†	240.3	157.0	4.8446	ug/L	4.8446	ppb	15:57:04
1	P 214.914†	493.2	288.7	154.72	ug/L	154.72	ppb	15:57:04
1	Pb 220.353†	-6.1	51.5	8.2376	ug/L	8.2376	ppb	15:57:04
1	S 181.975 Axial†	128.8	86.3	107.18	ug/L	107.18	ppb	15:57:04
1	Sb 206.836†	56.7	23.2	9.4342	ug/L	9.4342	ppb	15:57:04
1	Se 196.026†	31.7	50.3	30.169	ug/L	30.169	ppb	15:57:04
1	Si 251.611†	3277.6	2689.0	95.775	ug/L	95.775	ppb	15:57:04
1	Sn 189.927†	51.3	37.6	8.6245	ug/L	8.6245	ppb	15:57:04
1	Ti 334.940†	1285.1	2605.2	5.1383	ug/L	5.1383	ppb	15:56:44
1	Tl 190.801†	7.5	43.1	19.593	ug/L	19.593	ppb	15:57:04
1	U 409.014†	-913.7	1465.3	48.564	ug/L	48.564	ppb	15:56:44
1	V 292.402†	-1039.4	631.8	5.1270	ug/L	5.1270	ppb	15:56:44
1	Zn 213.857†	1667.1	850.8	9.0820	ug/L	9.0820	ppb	15:57:04
1	SiO2†	3451.8	2852.1	217.97	ug/L	217.97	ppb	15:58:00
2	Sc Radial	4872.2	4872.2	103	%			15:55:52
2	Y RADIAL	5155.3	5155.3	102.3	%			15:55:52
2	Al 396.153Radial†	145.5	224.3	204.90	ug/L	204.90	ppb	15:56:12
2	Ca 317.933Radial†	137.6	115.8	207.27	ug/L	207.27	ppb	15:56:12
2	Fe 238.204 Radial†	17.6	9.9	102.82	ug/L	102.82	ppb	15:56:12
2	K 766.490 Radial†	3224.4	835.3	157.53	ug/L	157.53	ppb	15:55:52
2	Mg 279.077 IEC†	9.0	6.7	263.15	ug/L	263.15	ppb	15:56:12
2	Na 589.592 Radial†	288.9	1018.6	309.96	ug/L	309.96	ppb	15:55:52
2	Sr 421.552†	740.3	702.5	5.0044	ug/L	5.0044	ppb	15:55:52
2	Sc 361.383	792346.5	792346.5	100.19	%			15:57:09
2	Y 371.029	709624.0	709624.0	100.37	%			15:57:09
2	Ag 328.068†	1210.8	1032.0	5.1823	ug/L	5.1823	ppb	15:57:09
2	As 188.979†	27.5	56.0	24.406	ug/L	24.406	ppb	15:57:29
2	B 249.677†	1733.2	1954.1	48.564	ug/L	48.564	ppb	15:57:09
2	Ba 233.527†	448.3	451.5	5.2474	ug/L	5.2474	ppb	15:57:29
2	Be 313.107†	3278.4	12604.6	4.9427	ug/L	4.9427	ppb	15:57:09
2	Cd 226.502†	173.7	356.0	4.8969	ug/L	4.8969	ppb	15:57:29
2	Co 228.616†	109.5	173.6	5.1778	ug/L	5.1778	ppb	15:57:29
2	Cr 267.716†	438.6	376.6	5.0065	ug/L	5.0065	ppb	15:57:29
2	Cu 324.752†	10313.3	2569.6	9.4517	ug/L	9.4517	ppb	15:57:09
2	Mn 257.610†	7035.6	6591.6	10.355	ug/L	10.355	ppb	15:57:09
2	Mo 202.031†	125.2	113.0	10.224	ug/L	10.224	ppb	15:57:29
2	Ni 231.604†	236.0	155.0	4.7836	ug/L	4.7836	ppb	15:57:29

2	P 214.914†	493.0	293.3	157.27 ug/L	157.27 ppb	15:57:29
2	Pb 220.353†	-7.1	50.5	8.0739 ug/L	8.0739 ppb	15:57:29
2	S 181.975 Axial†	121.5	80.2	99.598 ug/L	99.598 ppb	15:57:29
2	Sb 206.836†	46.0	13.0	5.4718 ug/L	5.4718 ppb	15:57:29
2	Se 196.026†	39.2	58.1	34.749 ug/L	34.749 ppb	15:57:29
2	Si 251.611†	3284.0	2726.5	97.110 ug/L	97.110 ppb	15:57:29
2	Sn 189.927†	58.9	45.7	10.478 ug/L	10.478 ppb	15:57:29
2	Ti 334.940†	1185.6	2518.0	4.9681 ug/L	4.9681 ppb	15:57:09
2	Tl 190.801†	8.6	44.3	20.125 ug/L	20.125 ppb	15:57:29
2	U 409.014†	-656.7	1713.1	56.781 ug/L	56.781 ppb	15:57:09
2	V 292.402†	-1140.4	521.1	4.2828 ug/L	4.2828 ppb	15:57:09
2	Zn 213.857†	1678.6	878.1	9.3762 ug/L	9.3762 ppb	15:57:29
2	SiO2†	3438.5	2871.5	219.46 ug/L	219.46 ppb	15:58:05
3	Sc Radial	4810.5	4810.5	101 %		15:56:17
3	Y RADIAL	5095.1	5095.1	101.1 %		15:56:17
3	Al 396.153Radial†	137.1	217.8	198.91 ug/L	198.91 ppb	15:56:37
3	Ca 317.933Radial†	127.9	108.0	193.27 ug/L	193.27 ppb	15:56:37
3	Fe 238.204 Radial†	17.5	10.0	104.36 ug/L	104.36 ppb	15:56:37
3	K 766.490 Radial†	3279.7	930.3	175.48 ug/L	175.48 ppb	15:56:17
3	Mg 279.077 IEC†	8.4	6.2	244.26 ug/L	244.26 ppb	15:56:37
3	Na 589.592 Radial†	189.4	924.1	281.18 ug/L	281.18 ppb	15:56:17
3	Sr 421.552†	742.7	714.1	5.0872 ug/L	5.0872 ppb	15:56:17
3	Sc 361.383	805675.7	805675.7	101.88 %		15:57:34
3	Y 371.029	721679.7	721679.7	102.08 %		15:57:34
3	Ag 328.068†	1180.0	981.7	4.9381 ug/L	4.9381 ppb	15:57:34
3	As 188.979†	39.2	67.1	29.197 ug/L	29.197 ppb	15:57:54
3	B 249.677†	1760.4	1952.2	48.516 ug/L	48.516 ppb	15:57:34
3	Ba 233.527†	444.9	440.7	5.1241 ug/L	5.1241 ppb	15:57:54
3	Be 313.107†	3144.5	12419.0	4.8704 ug/L	4.8704 ppb	15:57:34
3	Cd 226.502†	194.7	373.7	5.1402 ug/L	5.1402 ppb	15:57:54
3	Co 228.616†	106.1	168.5	5.0232 ug/L	5.0232 ppb	15:57:54
3	Cr 267.716†	444.3	374.9	4.9875 ug/L	4.9875 ppb	15:57:54
3	Cu 324.752†	10579.0	2660.0	9.7888 ug/L	9.7888 ppb	15:57:34
3	Mn 257.610†	7175.7	6612.8	10.389 ug/L	10.389 ppb	15:57:34
3	Mo 202.031†	123.2	108.9	9.8571 ug/L	9.8571 ppb	15:57:54
3	Ni 231.604†	249.0	164.0	5.0591 ug/L	5.0591 ppb	15:57:54
3	P 214.914†	494.5	286.6	153.58 ug/L	153.58 ppb	15:57:54
3	Pb 220.353†	5.8	63.2	10.090 ug/L	10.090 ppb	15:57:54
3	S 181.975 Axial†	121.4	78.1	97.006 ug/L	97.006 ppb	15:57:54
3	Sb 206.836†	57.8	23.9	9.7412 ug/L	9.7412 ppb	15:57:54
3	Se 196.026†	35.8	54.1	32.382 ug/L	32.382 ppb	15:57:54
3	Si 251.611†	3304.0	2691.9	95.882 ug/L	95.882 ppb	15:57:54
3	Sn 189.927†	62.9	48.6	11.146 ug/L	11.146 ppb	15:57:54
3	Ti 334.940†	1283.8	2594.9	5.1227 ug/L	5.1227 ppb	15:57:34
3	Tl 190.801†	1.9	37.6	17.098 ug/L	17.098 ppb	15:57:54
3	U 409.014†	-855.0	1529.4	50.689 ug/L	50.689 ppb	15:57:34
3	V 292.402†	-1083.3	596.0	4.8469 ug/L	4.8469 ppb	15:57:34
3	Zn 213.857†	1675.2	847.1	9.0405 ug/L	9.0405 ppb	15:57:54
3	SiO2†	3428.7	2805.1	214.38 ug/L	214.38 ppb	15:58:10

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	799325.1	101.08	%	0.846				0.84%
Sc Radial	4852.7	102	%	0.8				0.75%
Y 371.029	715956.4	101.27	%	0.856				0.85%
Y RADIAL	5137.4	101.9	%	0.73				0.72%
Ag 328.068†	1017.5	5.1159	ug/L	0.15563	5.1159	ppb	0.15563	3.04%
QC value within limits for Ag 328.068 Recovery = 102.32%								
Al 396.153Radial†	221.5	202.31	ug/L	3.077	202.31	ppb	3.077	1.52%
QC value within limits for Al 396.153Radial Recovery = 101.16%								
As 188.979†	59.8	26.018	ug/L	2.7533	26.018	ppb	2.7533	10.58%
QC value within limits for As 188.979 Recovery = 86.73%								
B 249.677†	1973.1	49.036	ug/L	0.8592	49.036	ppb	0.8592	1.75%
QC value within limits for B 249.677 Recovery = 98.07%								
Ba 233.527†	443.5	5.1566	ug/L	0.07966	5.1566	ppb	0.07966	1.54%
QC value within limits for Ba 233.527 Recovery = 103.13%								
Be 313.107†	12537.9	4.9168	ug/L	0.04027	4.9168	ppb	0.04027	0.82%
QC value within limits for Be 313.107 Recovery = 98.34%								
Ca 317.933Radial†	112.6	201.48	ug/L	7.311	201.48	ppb	7.311	3.63%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.74%
Cd 226.502†              363.4      4.9976 ug/L       0.12698      4.9976 ppb        0.12698   2.54%
   QC value within limits for Cd 226.502  Recovery = 99.95%
Co 228.616†              170.4      5.0805 ug/L       0.08467      5.0805 ppb        0.08467   1.67%
   QC value within limits for Co 228.616  Recovery = 101.61%
Cr 267.716†              376.7      5.0113 ug/L       0.02643      5.0113 ppb        0.02643   0.53%
   QC value within limits for Cr 267.716  Recovery = 100.23%
Cu 324.752†             2635.8      9.6988 ug/L       0.21663      9.6988 ppb        0.21663   2.23%
   QC value within limits for Cu 324.752  Recovery = 96.99%
Fe 238.204 Radial†        10.0      104.38 ug/L         1.576      104.38 ppb          1.576   1.51%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.38%
K 766.490 Radial†        842.2      158.84 ug/L        16.024      158.84 ppb         16.024  10.09%
   QC value within limits for K 766.490 Radial  Recovery = 105.89%
Mg 279.077 IEC†            7.1      279.82 ug/L        46.205      279.82 ppb         46.205  16.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 93.27%
Mn 257.610†             6598.1      10.365 ug/L        0.0214      10.365 ppb         0.0214   0.21%
   QC value within limits for Mn 257.610  Recovery = 103.65%
Mo 202.031†              111.6      10.103 ug/L        0.2127      10.103 ppb         0.2127   2.11%
   QC value within limits for Mo 202.031  Recovery = 101.03%
Na 589.592 Radial†       966.2      294.02 ug/L        14.639      294.02 ppb         14.639   4.98%
   QC value within limits for Na 589.592 Radial  Recovery = 98.01%
Ni 231.604†              158.7      4.8957 ug/L       0.14472      4.8957 ppb        0.14472   2.96%
   QC value within limits for Ni 231.604  Recovery = 97.91%
P 214.914†               289.5      155.19 ug/L         1.890      155.19 ppb          1.890   1.22%
   QC value within limits for P 214.914  Recovery = 103.46%
Pb 220.353†               55.0      8.8005 ug/L       1.11979      8.8005 ppb        1.11979  12.72%
   QC value within limits for Pb 220.353  Recovery = 88.01%
S 181.975 Axial†          81.5      101.26 ug/L         5.289      101.26 ppb          5.289   5.22%
   QC value within limits for S 181.975 Axial  Recovery = 101.26%
Sb 206.836†               20.0      8.2157 ug/L       2.38125      8.2157 ppb        2.38125  28.98%
   QC value within limits for Sb 206.836  Recovery = 82.16%
Se 196.026†               54.2      32.434 ug/L        2.2904      32.434 ppb         2.2904   7.06%
   QC value within limits for Se 196.026  Recovery = 108.11%
Si 251.611†             2702.5      96.256 ug/L        0.7421      96.256 ppb         0.7421   0.77%
   QC value within limits for Si 251.611  Recovery = 96.26%
Sn 189.927†               44.0      10.083 ug/L        1.3065      10.083 ppb         1.3065  12.96%
   QC value within limits for Sn 189.927  Recovery = 100.83%
Sr 421.552†              713.7      5.0840 ug/L       0.07796      5.0840 ppb        0.07796   1.53%
   QC value within limits for Sr 421.552  Recovery = 101.68%
Ti 334.940†             2572.7      5.0763 ug/L       0.09410      5.0763 ppb        0.09410   1.85%
   QC value within limits for Ti 334.940  Recovery = 101.53%
Tl 190.801†               41.6      18.939 ug/L        1.6160      18.939 ppb         1.6160   8.53%
   QC value within limits for Tl 190.801  Recovery = 94.69%
U 409.014†              1569.3      52.011 ug/L        4.2654      52.011 ppb         4.2654   8.20%
   QC value within limits for U 409.014  Recovery = 104.02%
V 292.402†               583.0      4.7523 ug/L       0.43000      4.7523 ppb        0.43000   9.05%
   QC value within limits for V 292.402  Recovery = 95.05%
Zn 213.857†              858.6      9.1662 ug/L       0.18298      9.1662 ppb        0.18298   2.00%
   QC value within limits for Zn 213.857  Recovery = 91.66%
SiO2†                   2842.9      217.27 ug/L         2.610      217.27 ppb          2.610   1.20%
   QC value within limits for SiO2  Recovery = 102.01%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/4/2010 16:00:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4321.9	4321.9	91.0	%			16:02:36
1	Y RADIAL	4550.2	4550.2	90.28	%			16:02:36
1	Al 396.153Radial†	515517.3	566417.6	518650	ug/L	518650	ppb	16:02:16
1	Ca 317.933Radial†	243783.9	267796.9	479230	ug/L	479230	ppb	16:02:16
1	Fe 238.204 Radial†	16364.6	17970.5	186510	ug/L	186510	ppb	16:02:36
1	K 766.490 Radial†	1997.7	-112.1	-181.46	ug/L	-181.46	ppb	16:02:16
1	Mg 279.077 IEC†	11438.2	12563.6	494880	ug/L	494880	ppb	16:02:36
1	Na 589.592 Radial†	-609.0	68.1	20.708	ug/L	20.708	ppb	16:02:36
1	Sr 421.552†	524.2	556.9	0.3901	ug/L	0.3901	ppb	16:02:36
1	Sc 361.383	710286.7	710286.7	89.817	%			16:03:33
1	Y 371.029	619636.3	619636.3	87.644	%			16:03:33
1	Ag 328.068†	-10586.0	-11962.6	-9.2573	ug/L	-9.2573	ppb	16:03:33
1	As 188.979†	-73.4	-53.1	20.431	ug/L	20.431	ppb	16:03:53
1	B 249.677†	536.7	821.8	-9.8555	ug/L	-9.8555	ppb	16:03:33
1	Ba 233.527†	-526.9	-582.6	-1.0457	ug/L	-1.0457	ppb	16:03:53
1	Be 313.107†	-9650.0	-1411.5	-0.6067	ug/L	-0.6067	ppb	16:03:33
1	Cd 226.502†	1136.3	1447.7	0.6493	ug/L	0.6493	ppb	16:03:53
1	Co 228.616†	-23.4	38.3	-1.5501	ug/L	-1.5501	ppb	16:03:53
1	Cr 267.716†	-94.5	-166.4	1.3574	ug/L	1.3574	ppb	16:03:53
1	Cu 324.752†	5808.7	-1256.5	5.2056	ug/L	5.2056	ppb	16:03:33
1	Mn 257.610†	-435.0	-914.8	-3.2586	ug/L	-3.2586	ppb	16:03:33
1	Mo 202.031†	-181.3	-213.9	0.8430	ug/L	0.8430	ppb	16:03:53
1	Ni 231.604†	145.3	81.3	2.5086	ug/L	2.5086	ppb	16:03:53
1	P 214.914†	161.8	-18.7	-30.847	ug/L	-30.847	ppb	16:03:53
1	Pb 220.353†	-696.0	-717.4	4.0678	ug/L	4.0678	ppb	16:03:53
1	S 181.975 Axial†	65.5	31.9	-57.545	ug/L	-57.545	ppb	16:03:53
1	Sb 206.836†	81.7	58.0	5.2022	ug/L	5.2022	ppb	16:03:53
1	Se 196.026†	-732.2	-796.2	-5.7993	ug/L	-5.7993	ppb	16:03:53
1	Si 251.611†	546.5	57.3	2.2806	ug/L	2.2806	ppb	16:03:53
1	Sn 189.927†	-296.7	-343.4	-4.0477	ug/L	-4.0477	ppb	16:03:53
1	Ti 334.940†	-12072.7	-12106.6	-0.1684	ug/L	-0.1684	ppb	16:03:33
1	Tl 190.801†	-59.5	-30.5	-14.078	ug/L	-14.078	ppb	16:03:53
1	U 409.014†	-574.2	1729.4	36.085	ug/L	36.085	ppb	16:03:33
1	V 292.402†	366.7	2067.6	-1.6835	ug/L	-1.6835	ppb	16:03:53
1	Zn 213.857†	3005.0	2548.4	-0.5380	ug/L	-0.5380	ppb	16:03:53
1	SiO2†	470.4	-36.6	-2.2740	ug/L	-2.2740	ppb	16:04:49
2	Sc Radial	4297.2	4297.2	90.5	%			16:03:01
2	Y RADIAL	4528.6	4528.6	89.85	%			16:03:01
2	Al 396.153Radial†	510540.0	564167.1	516590	ug/L	516590	ppb	16:02:41
2	Ca 317.933Radial†	241952.0	267309.3	478360	ug/L	478360	ppb	16:02:41
2	Fe 238.204 Radial†	16386.8	18098.2	187840	ug/L	187840	ppb	16:03:01
2	K 766.490 Radial†	2075.3	-13.7	-162.59	ug/L	-162.59	ppb	16:02:41
2	Mg 279.077 IEC†	11455.1	12654.3	498460	ug/L	498460	ppb	16:03:01
2	Na 589.592 Radial†	-598.2	76.1	23.168	ug/L	23.168	ppb	16:03:01
2	Sr 421.552†	519.3	554.9	0.3820	ug/L	0.3820	ppb	16:03:01
2	Sc 361.383	703092.5	703092.5	88.908	%			16:03:58
2	Y 371.029	613545.9	613545.9	86.783	%			16:03:58
2	Ag 328.068†	-10410.6	-11885.9	-8.4450	ug/L	-8.4450	ppb	16:03:58
2	As 188.979†	-80.6	-62.1	16.860	ug/L	16.860	ppb	16:04:19
2	B 249.677†	427.4	705.0	-12.976	ug/L	-12.976	ppb	16:03:58
2	Ba 233.527†	-530.1	-592.2	-1.1161	ug/L	-1.1161	ppb	16:04:19
2	Be 313.107†	-9757.7	-1642.6	-0.6976	ug/L	-0.6976	ppb	16:03:58
2	Cd 226.502†	1123.2	1445.9	0.4869	ug/L	0.4869	ppb	16:04:19
2	Co 228.616†	-4.5	59.3	-0.9482	ug/L	-0.9482	ppb	16:04:19
2	Cr 267.716†	-95.4	-168.5	1.3579	ug/L	1.3579	ppb	16:04:19
2	Cu 324.752†	5818.6	-1179.1	5.5653	ug/L	5.5653	ppb	16:03:58
2	Mn 257.610†	-298.3	-765.9	-3.0400	ug/L	-3.0400	ppb	16:03:58
2	Mo 202.031†	-186.2	-221.4	0.2577	ug/L	0.2577	ppb	16:04:19
2	Ni 231.604†	154.3	93.0	2.8709	ug/L	2.8709	ppb	16:04:19

2	P 214.914†	179.2	2.7	-20.892 ug/L	-20.892 ppb	16:04:19
2	Pb 220.353†	-654.0	-678.1	9.6836 ug/L	9.6836 ppb	16:04:19
2	S 181.975 Axial†	70.4	38.1	-49.441 ug/L	-49.441 ppb	16:04:19
2	Sb 206.836†	70.6	46.5	0.7493 ug/L	0.7493 ppb	16:04:19
2	Se 196.026†	-717.6	-788.2	1.7394 ug/L	1.7394 ppb	16:04:19
2	Si 251.611†	523.3	37.4	1.5814 ug/L	1.5814 ppb	16:04:19
2	Sn 189.927†	-287.9	-336.8	-2.7817 ug/L	-2.7817 ppb	16:04:19
2	Ti 334.940†	-12043.6	-12211.5	-0.7819 ug/L	-0.7819 ppb	16:03:58
2	Tl 190.801†	-65.3	-37.7	-17.349 ug/L	-17.349 ppb	16:04:19
2	U 409.014†	-766.2	1506.9	28.556 ug/L	28.556 ppb	16:03:58
2	V 292.402†	428.1	2140.8	-1.2627 ug/L	-1.2627 ppb	16:04:19
2	Zn 213.857†	3019.6	2599.1	-0.1945 ug/L	-0.1945 ppb	16:04:19
2	SiO2†	494.8	-3.8	0.2518 ug/L	0.2518 ppb	16:04:54
3	Sc Radial	4350.5	4350.5	91.6 %		16:03:26
3	Y RADIAL	4587.3	4587.3	91.01 %		16:03:26
3	Al 396.153Radial†	516236.9	563473.4	515950 ug/L	515950 ppb	16:03:06
3	Ca 317.933Radial†	244137.4	266419.1	476770 ug/L	476770 ppb	16:03:06
3	Fe 238.204 Radial†	16403.4	17894.4	185720 ug/L	185720 ppb	16:03:26
3	K 766.490 Radial†	1866.0	-270.3	-210.51 ug/L	-210.51 ppb	16:03:06
3	Mg 279.077 IEC†	11481.3	12527.9	493470 ug/L	493470 ppb	16:03:26
3	Na 589.592 Radial†	-614.3	66.7	20.298 ug/L	20.298 ppb	16:03:26
3	Sr 421.552†	529.2	558.6	0.4202 ug/L	0.4202 ppb	16:03:26
3	Sc 361.383	705421.9	705421.9	89.202 %		16:04:24
3	Y 371.029	614833.0	614833.0	86.965 %		16:04:24
3	Ag 328.068†	-10453.4	-11895.2	-9.1253 ug/L	-9.1253 ppb	16:04:24
3	As 188.979†	-85.8	-67.6	13.955 ug/L	13.955 ppb	16:04:44
3	B 249.677†	414.0	688.4	-13.044 ug/L	-13.044 ppb	16:04:24
3	Ba 233.527†	-510.9	-568.8	-0.9091 ug/L	-0.9091 ppb	16:04:44
3	Be 313.107†	-9717.3	-1561.0	-0.6657 ug/L	-0.6657 ppb	16:04:24
3	Cd 226.502†	1116.4	1434.1	0.5445 ug/L	0.5445 ppb	16:04:44
3	Co 228.616†	-22.4	39.2	-1.5124 ug/L	-1.5124 ppb	16:04:44
3	Cr 267.716†	-124.2	-200.5	0.8891 ug/L	0.8891 ppb	16:04:44
3	Cu 324.752†	5721.0	-1310.2	4.9669 ug/L	4.9669 ppb	16:04:24
3	Mn 257.610†	-238.5	-697.9	-2.9382 ug/L	-2.9382 ppb	16:04:24
3	Mo 202.031†	-184.4	-218.7	0.3212 ug/L	0.3212 ppb	16:04:44
3	Ni 231.604†	171.7	112.0	3.4556 ug/L	3.4556 ppb	16:04:44
3	P 214.914†	175.1	-2.5	-22.107 ug/L	-22.107 ppb	16:04:44
3	Pb 220.353†	-714.8	-743.9	-0.7618 ug/L	-0.7618 ppb	16:04:44
3	S 181.975 Axial†	55.9	21.6	-69.837 ug/L	-69.837 ppb	16:04:44
3	Sb 206.836†	43.5	15.9	-11.301 ug/L	-11.301 ppb	16:04:44
3	Se 196.026†	-729.2	-798.4	-9.1339 ug/L	-9.1339 ppb	16:04:44
3	Si 251.611†	521.6	33.6	1.4400 ug/L	1.4400 ppb	16:04:44
3	Sn 189.927†	-304.4	-354.3	-6.9360 ug/L	-6.9360 ppb	16:04:44
3	Ti 334.940†	-12085.1	-12213.3	-0.5944 ug/L	-0.5944 ppb	16:04:24
3	Tl 190.801†	-62.8	-34.7	-15.966 ug/L	-15.966 ppb	16:04:44
3	U 409.014†	-614.4	1679.9	34.535 ug/L	34.535 ppb	16:04:24
3	V 292.402†	406.5	2115.0	-1.2369 ug/L	-1.2369 ppb	16:04:44
3	Zn 213.857†	3010.3	2577.4	-0.1146 ug/L	-0.1146 ppb	16:04:44
3	SiO2†	628.7	144.5	11.596 ug/L	11.596 ppb	16:04:59

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	706267.0	89.309	%	0.4642				0.52%
Sc Radial	4323.2	91.1	%	0.56				0.62%
Y 371.029	616005.1	87.131	%	0.4540				0.52%
Y RADIAL	4555.4	90.38	%	0.589				0.65%
Ag 328.068†	-11914.6	-8.9425	ug/L	0.43589	-8.9425	ppb	0.43589	4.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	564686.0	517060	ug/L	1409.3	517060	ppb	1409.3	0.27%
QC value within limits for Al 396.153Radial Recovery = 103.41%								
As 188.979†	-60.9	17.082	ug/L	3.2435	17.082	ppb	3.2435	18.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	738.4	-11.958	ug/L	1.8215	-11.958	ppb	1.8215	15.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-581.2	-1.0236	ug/L	0.10521	-1.0236	ppb	0.10521	10.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1538.4	-0.6566	ug/L	0.04612	-0.6566	ppb	0.04612	7.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	267175.1	478120	ug/L	1250.2	478120	ppb	1250.2	0.26%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.62%
Cd 226.502†            1442.6      0.5602 ug/L       0.08233      0.5602 ppb        0.08233  14.69%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              45.6     -1.3369 ug/L       0.33717     -1.3369 ppb        0.33717  25.22%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -178.5      1.2015 ug/L       0.27053      1.2015 ppb        0.27053  22.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -1248.6      5.2460 ug/L       0.30123      5.2460 ppb        0.30123   5.74%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    17987.7      186690 ug/L        1068.7      186690 ppb         1068.7   0.57%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.34%
K 766.490 Radial†       -132.0     -184.85 ug/L        24.135     -184.85 ppb         24.135  13.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       12581.9      495600 ug/L        2568.0      495600 ppb         2568.0   0.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.12%
Mn 257.610†            -792.9     -3.0789 ug/L       0.16374     -3.0789 ppb        0.16374   5.32%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -218.0      0.4740 ug/L       0.32117      0.4740 ppb        0.32117  67.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        70.3      21.391 ug/L        1.5519      21.391 ppb         1.5519   7.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               95.4      2.9450 ug/L       0.47781      2.9450 ppb        0.47781  16.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.2     -24.615 ug/L        5.4307     -24.615 ppb         5.4307  22.06%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -713.1      4.3299 ug/L       5.22762      4.3299 ppb        5.22762 120.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          30.6     -58.941 ug/L       10.2696     -58.941 ppb        10.2696  17.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               40.1     -1.7832 ug/L       8.53810     -1.7832 ppb        8.53810 478.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -794.3     -4.3979 ug/L       5.57049     -4.3979 ppb        5.57049 126.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               42.8      1.7673 ug/L       0.45006      1.7673 ppb        0.45006  25.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -344.9     -4.5885 ug/L       2.12931     -4.5885 ppb        2.12931  46.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             556.8      0.3974 ug/L       0.02015      0.3974 ppb        0.02015   5.07%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -12177.1     -0.5149 ug/L       0.31438     -0.5149 ppb        0.31438  61.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -34.3     -15.798 ug/L        1.6417     -15.798 ppb         1.6417  10.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1638.7      33.059 ug/L        3.9754      33.059 ppb         3.9754  12.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2107.8     -1.3944 ug/L       0.25077     -1.3944 ppb        0.25077  17.98%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2574.9     -0.2823 ug/L       0.22496     -0.2823 ppb        0.22496  79.68%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    34.7      3.1911 ug/L       7.38722      3.1911 ppb        7.38722 231.50%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/4/2010 16:07:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4276.4	4276.4	90.1	%			16:09:09
1	Y RADIAL	4529.2	4529.2	89.86	%			16:09:09
1	Al 396.153Radial†	509556.7	565823.2	518080	ug/L	518080	ppb	16:09:04
1	Ca 317.933Radial†	240471.6	266968.0	477750	ug/L	477750	ppb	16:09:04
1	Fe 238.204 Radial†	16433.0	18237.7	189300	ug/L	189300	ppb	16:09:09
1	K 766.490 Radial†	28928.5	29811.5	5466.6	ug/L	5466.6	ppb	16:09:04
1	Mg 279.077 IEC†	11427.4	12685.3	499680	ug/L	499680	ppb	16:09:09
1	Na 589.592 Radial†	15536.1	17986.1	5473.0	ug/L	5473.0	ppb	16:09:09
1	Sr 421.552†	65403.2	72595.7	513.74	ug/L	513.74	ppb	16:09:04
1	Sc 361.383	707306.8	707306.8	89.441	%			16:09:37
1	Y 371.029	617026.4	617026.4	87.275	%			16:09:37
1	Ag 328.068†	38502.2	42871.3	268.68	ug/L	268.68	ppb	16:09:37
1	As 188.979†	990.5	1136.1	541.36	ug/L	541.36	ppb	16:09:57
1	B 249.677†	19352.1	21861.1	511.51	ug/L	511.51	ppb	16:09:37
1	Ba 233.527†	38972.7	43577.9	512.26	ug/L	512.26	ppb	16:09:37
1	Be 313.107†	547187.0	621120.9	244.14	ug/L	244.14	ppb	16:09:37
1	Cd 226.502†	31771.7	35705.3	471.70	ug/L	471.70	ppb	16:09:57
1	Co 228.616†	14665.0	16460.8	487.10	ug/L	487.10	ppb	16:09:57
1	Cr 267.716†	32712.8	36513.7	491.03	ug/L	491.03	ppb	16:09:37
1	Cu 324.752†	147858.2	157590.8	590.97	ug/L	590.97	ppb	16:09:37
1	Mn 257.610†	291328.0	325292.0	509.31	ug/L	509.31	ppb	16:09:37
1	Mo 202.031†	4754.7	5304.0	499.91	ug/L	499.91	ppb	16:09:57
1	Ni 231.604†	13667.6	15200.7	469.00	ug/L	469.00	ppb	16:09:57
1	P 214.914†	4501.7	4834.4	2487.9	ug/L	2487.9	ppb	16:09:57
1	Pb 220.353†	2135.4	2445.0	506.59	ug/L	506.59	ppb	16:09:57
1	S 181.975 Axial†	1978.3	2170.8	2599.5	ug/L	2599.5	ppb	16:09:57
1	Sb 206.836†	1349.5	1476.0	579.36	ug/L	579.36	ppb	16:09:57
1	Se 196.026†	3262.5	3666.7	2651.6	ug/L	2651.6	ppb	16:09:57
1	Si 251.611†	136898.9	152510.2	5433.1	ug/L	5433.1	ppb	16:09:37
1	Sn 189.927†	1719.7	1909.7	510.43	ug/L	510.43	ppb	16:09:57
1	Ti 334.940†	224447.2	252280.4	522.62	ug/L	522.62	ppb	16:09:37
1	Tl 190.801†	960.1	1109.1	506.28	ug/L	506.28	ppb	16:09:57
1	U 409.014†	13124.1	17042.1	542.42	ug/L	542.42	ppb	16:09:37
1	V 292.402†	58688.5	67276.7	511.67	ug/L	511.67	ppb	16:09:37
1	Zn 213.857†	45144.0	49676.5	501.68	ug/L	501.68	ppb	16:09:37
1	SiO2†	138030.6	153766.3	11754	ug/L	11754	ppb	16:10:55
2	Sc Radial	4242.0	4242.0	89.3	%			16:09:19
2	Y RADIAL	4450.9	4450.9	88.31	%			16:09:19
2	Al 396.153Radial†	514983.4	576481.0	527840	ug/L	527840	ppb	16:09:14
2	Ca 317.933Radial†	242479.1	271378.1	485640	ug/L	485640	ppb	16:09:14
2	Fe 238.204 Radial†	16338.0	18279.1	189730	ug/L	189730	ppb	16:09:19
2	K 766.490 Radial†	29054.0	30212.2	5539.7	ug/L	5539.7	ppb	16:09:14
2	Mg 279.077 IEC†	11342.4	12693.0	499980	ug/L	499980	ppb	16:09:19
2	Na 589.592 Radial†	15305.6	17868.0	5437.0	ug/L	5437.0	ppb	16:09:19
2	Sr 421.552†	65889.8	73728.7	521.75	ug/L	521.75	ppb	16:09:14
2	Sc 361.383	722916.7	722916.7	91.414	%			16:10:03
2	Y 371.029	630379.8	630379.8	89.164	%			16:10:03
2	Ag 328.068†	39590.8	43132.7	270.00	ug/L	270.00	ppb	16:10:03
2	As 188.979†	984.8	1106.0	528.39	ug/L	528.39	ppb	16:10:23
2	B 249.677†	19889.1	21981.3	514.46	ug/L	514.46	ppb	16:10:03
2	Ba 233.527†	39646.5	43374.1	509.91	ug/L	509.91	ppb	16:10:03
2	Be 313.107†	556612.2	618221.0	243.01	ug/L	243.01	ppb	16:10:03
2	Cd 226.502†	31773.8	34940.5	461.13	ug/L	461.13	ppb	16:10:23
2	Co 228.616†	14654.2	16094.8	476.19	ug/L	476.19	ppb	16:10:23
2	Cr 267.716†	33234.8	36295.0	488.12	ug/L	488.12	ppb	16:10:03
2	Cu 324.752†	152991.4	159636.4	598.53	ug/L	598.53	ppb	16:10:03
2	Mn 257.610†	297147.4	324624.6	508.29	ug/L	508.29	ppb	16:10:03
2	Mo 202.031†	4761.7	5197.0	490.36	ug/L	490.36	ppb	16:10:23
2	Ni 231.604†	13656.6	14858.7	458.44	ug/L	458.44	ppb	16:10:23

2	P 214.914†	4502.4	4726.5	2429.8 ug/L	2429.8 ppb	16:10:23
2	Pb 220.353†	2114.6	2370.7	497.22 ug/L	497.22 ppb	16:10:23
2	S 181.975 Axial†	1955.6	2098.2	2507.5 ug/L	2507.5 ppb	16:10:23
2	Sb 206.836†	1362.1	1457.1	571.30 ug/L	571.30 ppb	16:10:23
2	Se 196.026†	3238.2	3561.3	2590.9 ug/L	2590.9 ppb	16:10:23
2	Si 251.611†	140060.7	152663.9	5438.7 ug/L	5438.7 ppb	16:10:03
2	Sn 189.927†	1708.4	1855.8	499.50 ug/L	499.50 ppb	16:10:23
2	Ti 334.940†	229477.9	252364.9	523.82 ug/L	523.82 ppb	16:10:03
2	Tl 190.801†	947.2	1071.9	489.43 ug/L	489.43 ppb	16:10:23
2	U 409.014†	13586.2	17230.8	548.63 ug/L	548.63 ppb	16:10:03
2	V 292.402†	59677.6	66941.7	508.89 ug/L	508.89 ppb	16:10:03
2	Zn 213.857†	45938.1	49455.2	499.29 ug/L	499.29 ppb	16:10:03
2	SiO2†	140357.9	152979.8	11694 ug/L	11694 ppb	16:11:00
3	Sc Radial	4221.2	4221.2	88.9 %		16:09:30
3	Y RADIAL	4475.5	4475.5	88.80 %		16:09:30
3	Al 396.153Radial†	517621.1	582294.8	533160 ug/L	533160 ppb	16:09:25
3	Ca 317.933Radial†	243989.8	274417.7	491080 ug/L	491080 ppb	16:09:25
3	Fe 238.204 Radial†	16309.4	18337.3	190330 ug/L	190330 ppb	16:09:30
3	K 766.490 Radial†	29274.7	30621.0	5615.0 ug/L	5615.0 ppb	16:09:25
3	Mg 279.077 IEC†	11299.9	12707.9	500570 ug/L	500570 ppb	16:09:30
3	Na 589.592 Radial†	15374.3	18029.9	5486.3 ug/L	5486.3 ppb	16:09:30
3	Sr 421.552†	66377.6	74641.5	528.22 ug/L	528.22 ppb	16:09:25
3	Sc 361.383	727449.8	727449.8	91.988 %		16:10:29
3	Y 371.029	634060.9	634060.9	89.685 %		16:10:29
3	Ag 328.068†	39592.1	42864.2	268.76 ug/L	268.76 ppb	16:10:29
3	As 188.979†	984.9	1099.3	525.62 ug/L	525.62 ppb	16:10:49
3	B 249.677†	19996.4	21962.3	513.89 ug/L	513.89 ppb	16:10:29
3	Ba 233.527†	39861.1	43337.1	509.50 ug/L	509.50 ppb	16:10:29
3	Be 313.107†	559289.9	617337.6	242.66 ug/L	242.66 ppb	16:10:29
3	Cd 226.502†	31947.0	34912.3	460.68 ug/L	460.68 ppb	16:10:49
3	Co 228.616†	14751.9	16101.2	476.37 ug/L	476.37 ppb	16:10:49
3	Cr 267.716†	33331.0	36173.0	486.50 ug/L	486.50 ppb	16:10:29
3	Cu 324.752†	153979.0	159667.2	598.67 ug/L	598.67 ppb	16:10:29
3	Mn 257.610†	298827.7	324425.7	508.02 ug/L	508.02 ppb	16:10:29
3	Mo 202.031†	4791.1	5196.5	490.43 ug/L	490.43 ppb	16:10:49
3	Ni 231.604†	13706.3	14819.6	457.24 ug/L	457.24 ppb	16:10:49
3	P 214.914†	4517.0	4711.6	2422.6 ug/L	2422.6 ppb	16:10:49
3	Pb 220.353†	2134.1	2377.5	499.62 ug/L	499.62 ppb	16:10:49
3	S 181.975 Axial†	1981.1	2112.7	2524.4 ug/L	2524.4 ppb	16:10:49
3	Sb 206.836†	1347.9	1432.4	561.46 ug/L	561.46 ppb	16:10:49
3	Se 196.026†	3251.4	3553.6	2588.2 ug/L	2588.2 ppb	16:10:49
3	Si 251.611†	141027.6	152760.2	5442.2 ug/L	5442.2 ppb	16:10:29
3	Sn 189.927†	1719.1	1855.8	500.44 ug/L	500.44 ppb	16:10:49
3	Ti 334.940†	230490.9	251901.8	523.58 ug/L	523.58 ppb	16:10:29
3	Tl 190.801†	960.6	1080.0	493.09 ug/L	493.09 ppb	16:10:49
3	U 409.014†	13787.4	17357.0	552.75 ug/L	552.75 ppb	16:10:29
3	V 292.402†	60117.4	67013.0	509.37 ug/L	509.37 ppb	16:10:29
3	Zn 213.857†	46152.5	49375.2	498.35 ug/L	498.35 ppb	16:10:29
3	SiO2†	138849.1	150382.8	11495 ug/L	11495 ppb	16:11:05

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	719224.4	90.948	%	1.3362				1.47%
Sc Radial	4246.5	89.4	%	0.59				0.66%
Y 371.029	627155.7	88.708	%	1.2678				1.43%
Y RADIAL	4485.2	88.99	%	0.794				0.89%
Ag 328.068†	42956.1	269.15	ug/L	0.740	269.15	ppb	0.740	0.28%
QC value within limits for Ag 328.068 Recovery = 107.66%								
Al 396.153Radial†	574866.3	526360	ug/L	7649.4	526360	ppb	7649.4	1.45%
QC value within limits for Al 396.153Radial Recovery = 105.27%								
As 188.979†	1113.8	531.79	ug/L	8.406	531.79	ppb	8.406	1.58%
QC value within limits for As 188.979 Recovery = 106.36%								
B 249.677†	21934.9	513.29	ug/L	1.565	513.29	ppb	1.565	0.30%
QC value within limits for B 249.677 Recovery = 102.66%								
Ba 233.527†	43429.7	510.56	ug/L	1.492	510.56	ppb	1.492	0.29%
QC value within limits for Ba 233.527 Recovery = 102.11%								
Be 313.107†	618893.2	243.27	ug/L	0.775	243.27	ppb	0.775	0.32%
QC value within limits for Be 313.107 Recovery = 97.31%								
Ca 317.933Radial†	270921.2	484820	ug/L	6703.3	484820	ppb	6703.3	1.38%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.96%
Cd 226.502†            35186.0      464.51 ug/L         6.233      464.51 ppb          6.233   1.34%
   QC value within limits for Cd 226.502  Recovery = 92.90%
Co 228.616†            16218.9      479.89 ug/L         6.250      479.89 ppb          6.250   1.30%
   QC value within limits for Co 228.616  Recovery = 95.98%
Cr 267.716†            36327.2      488.55 ug/L         2.296      488.55 ppb          2.296   0.47%
   QC value within limits for Cr 267.716  Recovery = 97.71%
Cu 324.752†           158964.8      596.06 ug/L         4.409      596.06 ppb          4.409   0.74%
   QC value within limits for Cu 324.752  Recovery = 119.21%
Fe 238.204 Radial†     18284.7      189790 ug/L         519.4      189790 ppb          519.4   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.89%
K 766.490 Radial†      30214.9      5540.5 ug/L         74.20      5540.5 ppb          74.20   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 110.81%
Mg 279.077 IEC†        12695.4      500080 ug/L         451.6      500080 ppb          451.6   0.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.02%
Mn 257.610†           324780.8      508.54 ug/L         0.682      508.54 ppb          0.682   0.13%
   QC value within limits for Mn 257.610  Recovery = 101.71%
Mo 202.031†             5232.5      493.57 ug/L         5.494      493.57 ppb          5.494   1.11%
   QC value within limits for Mo 202.031  Recovery = 98.71%
Na 589.592 Radial†     17961.3      5465.4 ug/L         25.48      5465.4 ppb          25.48   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 109.31%
Ni 231.604†            14959.7      461.56 ug/L         6.469      461.56 ppb          6.469   1.40%
   QC value within limits for Ni 231.604  Recovery = 92.31%
P 214.914†              4757.5      2446.8 ug/L         35.81      2446.8 ppb          35.81   1.46%
   QC value within limits for P 214.914  Recovery = 97.87%
Pb 220.353†             2397.7      501.14 ug/L         4.867      501.14 ppb          4.867   0.97%
   QC value within limits for Pb 220.353  Recovery = 100.23%
S 181.975 Axial†        2127.2      2543.8 ug/L         48.96      2543.8 ppb          48.96   1.92%
   QC value within limits for S 181.975 Axial  Recovery = 101.75%
Sb 206.836†             1455.2      570.71 ug/L         8.964      570.71 ppb          8.964   1.57%
   QC value within limits for Sb 206.836  Recovery = 114.14%
Se 196.026†             3593.8      2610.2 ug/L         35.86      2610.2 ppb          35.86   1.37%
   QC value within limits for Se 196.026  Recovery = 104.41%
Si 251.611†           152644.8      5438.0 ug/L          4.56      5438.0 ppb           4.56   0.08%
   QC value within limits for Si 251.611  Recovery = 108.76%
Sn 189.927†             1873.7      503.46 ug/L         6.061      503.46 ppb          6.061   1.20%
   QC value within limits for Sn 189.927  Recovery = 100.69%
Sr 421.552†            73655.3      521.24 ug/L         7.253      521.24 ppb          7.253   1.39%
   QC value within limits for Sr 421.552  Recovery = 104.25%
Ti 334.940†           252182.4      523.34 ug/L         0.635      523.34 ppb          0.635   0.12%
   QC value within limits for Ti 334.940  Recovery = 104.67%
Tl 190.801†             1087.0      496.27 ug/L         8.862      496.27 ppb          8.862   1.79%
   QC value within limits for Tl 190.801  Recovery = 99.25%
U 409.014†             17209.9      547.93 ug/L         5.201      547.93 ppb          5.201   0.95%
   QC value within limits for U 409.014  Recovery = 109.59%
V 292.402†             67077.2      509.98 ug/L         1.486      509.98 ppb          1.486   0.29%
   QC value within limits for V 292.402  Recovery = 102.00%
Zn 213.857†            49502.3      499.77 ug/L         1.715      499.77 ppb          1.715   0.34%
   QC value within limits for Zn 213.857  Recovery = 99.95%
SiO2†                 152376.3       11647 ug/L         135.4       11647 ppb          135.4   1.16%
   QC value within limits for SiO2  Recovery = 108.90%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/4/2010 16:13:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4247.1	4247.1	89.5	%			16:15:14
1	Y RADIAL	4518.0	4518.0	89.64	%			16:15:14
1	Al 396.153Radial†	499148.7	558089.4	511020	ug/L	511020	ppb	16:15:09
1	Ca 317.933Radial†	237967.0	266009.1	476030	ug/L	476030	ppb	16:15:09
1	Fe 238.204 Radial†	38166.0	42659.1	442750	ug/L	442750	ppb	16:15:14
1	K 766.490 Radial†	3669.4	1795.4	-26.232	ug/L	-26.232	ppb	16:15:14
1	Mg 279.077 IEC†	11255.6	12580.7	495290	ug/L	495290	ppb	16:15:14
1	Na 589.592 Radial†	1552366.1	1736153.6	528290	ug/L	528290	ppb	16:15:09
1	Sr 421.552†	1617.2	1788.9	9.1929	ug/L	9.1929	ppb	16:15:14
1	Sc 361.383	702222.2	702222.2	88.798	%			16:15:42
1	Y 371.029	614085.6	614085.6	86.859	%			16:15:42
1	Ag 328.068†	-22012.7	-24966.2	-8.2857	ug/L	-8.2857	ppb	16:15:42
1	As 188.979†	-162.4	-154.3	36.582	ug/L	36.582	ppb	16:16:02
1	B 249.677†	1345.0	1738.9	-28.673	ug/L	-28.673	ppb	16:15:42
1	Ba 233.527†	-1273.9	-1430.5	-3.0593	ug/L	-3.0593	ppb	16:16:02
1	Be 313.107†	-15413.4	-8025.4	-3.1842	ug/L	-3.1842	ppb	16:15:42
1	Cd 226.502†	3068.8	3638.6	7.2962	ug/L	7.2962	ppb	16:16:02
1	Co 228.616†	127.0	207.4	-0.2837	ug/L	-0.2837	ppb	16:16:02
1	Cr 267.716†	24.0	-34.2	1.9503	ug/L	1.9503	ppb	16:16:02
1	Cu 324.752†	3099.8	-4232.9	-0.7263	ug/L	-0.7263	ppb	16:15:42
1	Mn 257.610†	-18810.8	-21614.4	-10.499	ug/L	-10.499	ppb	16:15:42
1	Mo 202.031†	-382.2	-442.4	0.0407	ug/L	0.0407	ppb	16:16:02
1	Ni 231.604†	185.4	128.3	3.9561	ug/L	3.9561	ppb	16:16:02
1	P 214.914†	490.3	353.3	-35.210	ug/L	-35.210	ppb	16:16:02
1	Pb 220.353†	-503.4	-509.4	14.602	ug/L	14.602	ppb	16:16:02
1	S 181.975 Axial†	87.8	57.8	-23.949	ug/L	-23.949	ppb	16:16:02
1	Sb 206.836†	60.7	35.5	-6.7709	ug/L	-6.7709	ppb	16:16:02
1	Se 196.026†	-1773.1	-1977.8	-134.43	ug/L	-134.43	ppb	16:16:02
1	Si 251.611†	-260.0	-843.9	-29.605	ug/L	-29.605	ppb	16:16:02
1	Sn 189.927†	-318.6	-371.8	-25.823	ug/L	-25.823	ppb	16:16:02
1	Ti 334.940†	-9954.3	-9875.3	-2.9885	ug/L	-2.9885	ppb	16:15:42
1	Tl 190.801†	-94.4	-70.6	-32.398	ug/L	-32.398	ppb	16:16:02
1	U 409.014†	411414.5	465685.7	15391	ug/L	15391	ppb	16:15:42
1	V 292.402†	1615.5	3478.7	1.1127	ug/L	1.1127	ppb	16:16:02
1	Zn 213.857†	5222.7	5084.3	-11.630	ug/L	-11.630	ppb	16:16:02
1	SiO2†	-254.6	-847.0	-63.727	ug/L	-63.727	ppb	16:16:59
2	Sc Radial	4276.0	4276.0	90.1	%			16:15:24
2	Y RADIAL	4528.2	4528.2	89.84	%			16:15:24
2	Al 396.153Radial†	503407.9	559044.1	511900	ug/L	511900	ppb	16:15:19
2	Ca 317.933Radial†	238963.4	265316.1	474790	ug/L	474790	ppb	16:15:19
2	Fe 238.204 Radial†	38176.2	42381.9	439870	ug/L	439870	ppb	16:15:24
2	K 766.490 Radial†	3640.4	1735.3	-37.055	ug/L	-37.055	ppb	16:15:24
2	Mg 279.077 IEC†	11281.2	12524.0	493060	ug/L	493060	ppb	16:15:24
2	Na 589.592 Radial†	1562210.0	1735345.3	528040	ug/L	528040	ppb	16:15:19
2	Sr 421.552†	1612.9	1771.9	9.0813	ug/L	9.0813	ppb	16:15:24
2	Sc 361.383	705868.4	705868.4	89.259	%			16:16:08
2	Y 371.029	616779.3	616779.3	87.240	%			16:16:08
2	Ag 328.068†	-22092.6	-24927.7	-8.9422	ug/L	-8.9422	ppb	16:16:08
2	As 188.979†	-176.4	-169.0	29.483	ug/L	29.483	ppb	16:16:28
2	B 249.677†	1347.6	1734.0	-28.333	ug/L	-28.333	ppb	16:16:08
2	Ba 233.527†	-1322.2	-1477.3	-3.6881	ug/L	-3.6881	ppb	16:16:28
2	Be 313.107†	-15599.0	-8143.7	-3.2296	ug/L	-3.2296	ppb	16:16:08
2	Cd 226.502†	3022.7	3569.0	6.6341	ug/L	6.6341	ppb	16:16:28
2	Co 228.616†	171.3	256.3	1.2128	ug/L	1.2128	ppb	16:16:28
2	Cr 267.716†	19.0	-39.9	1.8271	ug/L	1.8271	ppb	16:16:28
2	Cu 324.752†	3100.0	-4250.6	-0.9330	ug/L	-0.9330	ppb	16:16:08
2	Mn 257.610†	-18607.9	-21277.6	-10.163	ug/L	-10.163	ppb	16:16:08
2	Mo 202.031†	-378.4	-436.0	0.3802	ug/L	0.3802	ppb	16:16:28
2	Ni 231.604†	200.4	144.0	4.4426	ug/L	4.4426	ppb	16:16:28

2	P 214.914†	476.7	335.2	-42.515 ug/L	-42.515 ppb	16:16:28
2	Pb 220.353†	-508.7	-512.4	14.557 ug/L	14.557 ppb	16:16:28
2	S 181.975 Axial†	88.6	58.2	-23.635 ug/L	-23.635 ppb	16:16:28
2	Sb 206.836†	44.6	17.1	-14.019 ug/L	-14.019 ppb	16:16:28
2	Se 196.026†	-1753.2	-1945.2	-121.43 ug/L	-121.43 ppb	16:16:28
2	Si 251.611†	-269.4	-853.0	-29.936 ug/L	-29.936 ppb	16:16:28
2	Sn 189.927†	-326.1	-378.4	-27.372 ug/L	-27.372 ppb	16:16:28
2	Ti 334.940†	-9828.9	-9677.0	-2.5705 ug/L	-2.5705 ppb	16:16:08
2	Tl 190.801†	-87.9	-62.8	-28.878 ug/L	-28.878 ppb	16:16:28
2	U 409.014†	413012.1	465082.3	15371 ug/L	15371 ppb	16:16:08
2	V 292.402†	1664.1	3523.7	1.8078 ug/L	1.8078 ppb	16:16:28
2	Zn 213.857†	5232.9	5065.4	-11.405 ug/L	-11.405 ppb	16:16:28
2	SiO2†	-301.8	-898.4	-67.674 ug/L	-67.674 ppb	16:17:04
3	Sc Radial	4264.7	4264.7	89.8 %		16:15:35
3	Y RADIAL	4503.2	4503.2	89.35 %		16:15:35
3	Al 396.153Radial†	502695.5	559733.2	512530 ug/L	512530 ppb	16:15:30
3	Ca 317.933Radial†	238416.8	265411.1	474960 ug/L	474960 ppb	16:15:30
3	Fe 238.204 Radial†	37924.5	42214.0	438130 ug/L	438130 ppb	16:15:35
3	K 766.490 Radial†	3614.3	1717.0	-40.163 ug/L	-40.163 ppb	16:15:35
3	Mg 279.077 IEC†	11207.9	12475.7	491150 ug/L	491150 ppb	16:15:35
3	Na 589.592 Radial†	1555017.2	1731937.4	527010 ug/L	527010 ppb	16:15:30
3	Sr 421.552†	1626.5	1791.9	9.2221 ug/L	9.2221 ppb	16:15:35
3	Sc 361.383	707911.9	707911.9	89.517 %		16:16:33
3	Y 371.029	617417.0	617417.0	87.330 %		16:16:33
3	Ag 328.068†	-22388.0	-25186.2	-10.800 ug/L	-10.800 ppb	16:16:33
3	As 188.979†	-161.8	-152.1	36.450 ug/L	36.450 ppb	16:16:53
3	B 249.677†	1308.4	1685.9	-29.245 ug/L	-29.245 ppb	16:16:33
3	Ba 233.527†	-1326.8	-1478.2	-3.7514 ug/L	-3.7514 ppb	16:16:53
3	Be 313.107†	-15667.9	-8170.2	-3.2403 ug/L	-3.2403 ppb	16:16:33
3	Cd 226.502†	3046.5	3585.9	7.0521 ug/L	7.0521 ppb	16:16:53
3	Co 228.616†	161.2	244.4	0.8827 ug/L	0.8827 ppb	16:16:53
3	Cr 267.716†	36.8	-20.1	2.0471 ug/L	2.0471 ppb	16:16:53
3	Cu 324.752†	3054.1	-4312.0	-1.2664 ug/L	-1.2664 ppb	16:16:33
3	Mn 257.610†	-18714.5	-21336.5	-10.350 ug/L	-10.350 ppb	16:16:33
3	Mo 202.031†	-386.9	-444.2	-0.4981 ug/L	-0.4981 ppb	16:16:53
3	Ni 231.604†	244.7	192.9	5.9503 ug/L	5.9503 ppb	16:16:53
3	P 214.914†	485.8	343.8	-36.206 ug/L	-36.206 ppb	16:16:53
3	Pb 220.353†	-514.7	-517.4	14.051 ug/L	14.051 ppb	16:16:53
3	S 181.975 Axial†	95.7	65.9	-14.166 ug/L	-14.166 ppb	16:16:53
3	Sb 206.836†	48.3	21.1	-12.429 ug/L	-12.429 ppb	16:16:53
3	Se 196.026†	-1785.8	-1975.9	-143.52 ug/L	-143.52 ppb	16:16:53
3	Si 251.611†	-269.6	-852.4	-29.905 ug/L	-29.905 ppb	16:16:53
3	Sn 189.927†	-318.0	-368.3	-24.933 ug/L	-24.933 ppb	16:16:53
3	Ti 334.940†	-9923.2	-9750.5	-2.5497 ug/L	-2.5497 ppb	16:16:33
3	Tl 190.801†	-94.4	-69.7	-32.020 ug/L	-32.020 ppb	16:16:53
3	U 409.014†	414924.8	465883.3	15398 ug/L	15398 ppb	16:16:33
3	V 292.402†	1664.5	3518.7	2.0265 ug/L	2.0265 ppb	16:16:53
3	Zn 213.857†	5226.3	5041.0	-11.415 ug/L	-11.415 ppb	16:16:53
3	SiO2†	-342.4	-942.8	-71.053 ug/L	-71.053 ppb	16:17:09

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	705334.2	89.191	%	0.3645				0.41%
Sc Radial	4262.6	89.8	%	0.31				0.34%
Y 371.029	616094.0	87.143	%	0.2501				0.29%
Y RADIAL	4516.5	89.61	%	0.250				0.28%
Ag 328.068†	-25026.7	-9.3428	ug/L	1.30436	-9.3428	ppb	1.30436	13.96%
Al 396.153Radial†	558955.6	511820	ug/L	755.9	511820	ppb	755.9	0.15%
QC value within limits for Al 396.153Radial Recovery = 102.36%								
As 188.979†	-158.5	34.172	ug/L	4.0612	34.172	ppb	4.0612	11.88%
B 249.677†	1719.6	-28.750	ug/L	0.4609	-28.750	ppb	0.4609	1.60%
Ba 233.527†	-1462.0	-3.4996	ug/L	0.38260	-3.4996	ppb	0.38260	10.93%
Be 313.107†	-8113.1	-3.2181	ug/L	0.02978	-3.2181	ppb	0.02978	0.93%
Ca 317.933Radial†	265578.7	475260	ug/L	672.3	475260	ppb	672.3	0.14%
QC value within limits for Ca 317.933Radial Recovery = 95.05%								
Cd 226.502†	3597.8	6.9941	ug/L	0.33484	6.9941	ppb	0.33484	4.79%
Co 228.616†	236.0	0.6039	ug/L	0.78624	0.6039	ppb	0.78624	130.19%
Cr 267.716†	-31.4	1.9415	ug/L	0.11025	1.9415	ppb	0.11025	5.68%
Cu 324.752†	-4265.2	-0.9752	ug/L	0.27249	-0.9752	ppb	0.27249	27.94%

Fe 238.204 Radial†	42418.3	440250	ug/L	2332.9	440250	ppb	2332.9	0.53%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 88.05%								
K 766.490 Radial†	1749.3	-34.483	ug/L	7.3128	-34.483	ppb	7.3128	21.21%
Mg 279.077 IEC†	12526.8	493170	ug/L	2070.1	493170	ppb	2070.1	0.42%
QC value within limits for Mg 279.077 IEC Recovery = 98.63%								
Mn 257.610†	-21409.5	-10.337	ug/L	0.1685	-10.337	ppb	0.1685	1.63%
Mo 202.031†	-440.8	-0.0257	ug/L	0.44290	-0.0257	ppb	0.44290	>999.9%
Na 589.592 Radial†	1734478.8	527780	ug/L	680.9	527780	ppb	680.9	0.13%
QC value within limits for Na 589.592 Radial Recovery = 105.56%								
Ni 231.604†	155.1	4.7830	ug/L	1.03979	4.7830	ppb	1.03979	21.74%
P 214.914†	344.1	-37.977	ug/L	3.9613	-37.977	ppb	3.9613	10.43%
Pb 220.353†	-513.1	14.403	ug/L	0.3060	14.403	ppb	0.3060	2.12%
S 181.975 Axial†	60.6	-20.583	ug/L	5.5595	-20.583	ppb	5.5595	27.01%
Sb 206.836†	24.6	-11.073	ug/L	3.8094	-11.073	ppb	3.8094	34.40%
Se 196.026†	-1966.3	-133.13	ug/L	11.101	-133.13	ppb	11.101	8.34%
Si 251.611†	-849.8	-29.815	ug/L	0.1830	-29.815	ppb	0.1830	0.61%
Sn 189.927†	-372.8	-26.043	ug/L	1.2346	-26.043	ppb	1.2346	4.74%
Sr 421.552†	1784.2	9.1654	ug/L	0.07434	9.1654	ppb	0.07434	0.81%
Ti 334.940†	-9767.6	-2.7029	ug/L	0.24759	-2.7029	ppb	0.24759	9.16%
Tl 190.801†	-67.7	-31.099	ug/L	1.9322	-31.099	ppb	1.9322	6.21%
U 409.014†	465550.4	15387	ug/L	13.9	15387	ppb	13.9	0.09%
QC value within limits for U 409.014 Recovery = 102.58%								
V 292.402†	3507.0	1.6490	ug/L	0.47713	1.6490	ppb	0.47713	28.93%
Zn 213.857†	5063.6	-11.484	ug/L	0.1270	-11.484	ppb	0.1270	1.11%
SiO2†	-896.1	-67.485	ug/L	3.6665	-67.485	ppb	3.6665	5.43%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/4/2010 16:19:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4671.6	4671.6	98.4	%			16:21:17
1	Y RADIAL	4886.0	4886.0	96.94	%			16:21:17
1	Al 396.153Radial†	432.8	522.3	11.645	ug/L	11.645	ppb	16:21:17
1	Ca 317.933Radial†	35.3	17.6	31.463	ug/L	31.463	ppb	16:21:37
1	Fe 238.204 Radial†	-18.1	-25.6	26.591	ug/L	26.591	ppb	16:21:37
1	K 766.490 Radial†	1597949.3	1621725.7	306220	ug/L	306220	ppb	16:21:12
1	Mg 279.077 IEC†	-4.4	-6.6	-158.69	ug/L	-158.69	ppb	16:21:37
1	Na 589.592 Radial†	-5.5	731.5	222.59	ug/L	222.59	ppb	16:21:17
1	Sr 421.552†	1384112.1	1406685.8	10024	ug/L	10024	ppb	16:21:12
1	Sc 361.383	798690.7	798690.7	101.00	%			16:22:54
1	Y 371.029	697509.2	697509.2	98.659	%			16:22:54
1	Ag 328.068†	-6725.3	-6835.4	5.5884	ug/L	5.5884	ppb	16:23:00
1	As 188.979†	22116.6	21927.1	9594.3	ug/L	9594.3	ppb	16:23:00
1	B 249.677†	202469.4	200696.4	4963.1	ug/L	4963.1	ppb	16:22:54
1	Ba 233.527†	1224758.0	1212680.5	14085	ug/L	14085	ppb	16:22:54
1	Be 313.107†	7278854.1	7216384.7	2845.9	ug/L	2845.9	ppb	16:22:48
1	Cd 226.502†	709474.5	702658.5	9665.6	ug/L	9665.6	ppb	16:22:54
1	Co 228.616†	331886.1	328676.6	9776.5	ug/L	9776.5	ppb	16:23:00
1	Cr 267.716†	1811471.2	1793540.8	23930	ug/L	23930	ppb	16:22:54
1	Cu 324.752†	5782949.8	5718180.5	21091	ug/L	21091	ppb	16:22:48
1	Mn 257.610†	6285876.9	6223439.7	9777.4	ug/L	9777.4	ppb	16:22:48
1	Mo 202.031†	107501.8	106429.3	9622.2	ug/L	9622.2	ppb	16:23:00
1	Ni 231.604†	317258.7	314048.7	9689.7	ug/L	9689.7	ppb	16:23:00
1	P 214.914†	32020.5	31505.8	12998	ug/L	12998	ppb	16:23:00
1	Pb 220.353†	157091.5	155599.4	24711	ug/L	24711	ppb	16:23:00
1	S 181.975 Axial†	40712.5	40269.8	50023	ug/L	50023	ppb	16:23:00
1	Sb 206.836†	26931.4	26632.9	10799	ug/L	10799	ppb	16:23:00
1	Se 196.026†	16913.0	16765.2	9982.7	ug/L	9982.7	ppb	16:23:00
1	Si 251.611†	1327949.2	1314298.5	46754	ug/L	46754	ppb	16:22:54
1	Sn 189.927†	45023.3	44566.1	10185	ug/L	10185	ppb	16:23:00
1	Ti 334.940†	5066056.5	5017417.3	9931.4	ug/L	9931.4	ppb	16:22:48
1	Tl 190.801†	22633.1	22445.5	10243	ug/L	10243	ppb	16:23:00
1	U 409.014†	-1240.4	1140.5	-15.673	ug/L	-15.673	ppb	16:23:00
1	V 292.402†	1285908.2	1274882.7	10017	ug/L	10017	ppb	16:22:54
1	Zn 213.857†	1293422.5	1279866.3	13662	ug/L	13662	ppb	16:22:54
1	SiO2†	1353233.4	1339324.1	102230	ug/L	102230	ppb	16:23:45
2	Sc Radial	4781.4	4781.4	101	%			16:21:47
2	Y RADIAL	4992.0	4992.0	99.05	%			16:21:47
2	Al 396.153Radial†	420.5	500.1	-11.811	ug/L	-11.811	ppb	16:21:47
2	Ca 317.933Radial†	33.9	15.5	27.652	ug/L	27.652	ppb	16:22:07
2	Fe 238.204 Radial†	-15.5	-22.6	59.513	ug/L	59.513	ppb	16:22:07
2	K 766.490 Radial†	1584745.2	1571322.9	296700	ug/L	296700	ppb	16:21:42
2	Mg 279.077 IEC†	-5.5	-7.6	-196.53	ug/L	-196.53	ppb	16:22:07
2	Na 589.592 Radial†	11.6	748.6	227.78	ug/L	227.78	ppb	16:21:47
2	Sr 421.552†	1370715.6	1361082.3	9698.9	ug/L	9698.9	ppb	16:21:42
2	Sc 361.383	799064.8	799064.8	101.04	%			16:23:14
2	Y 371.029	697929.2	697929.2	98.718	%			16:23:14
2	Ag 328.068†	-6806.4	-6912.6	5.1970	ug/L	5.1970	ppb	16:23:19
2	As 188.979†	22345.0	22142.8	9687.7	ug/L	9687.7	ppb	16:23:19
2	B 249.677†	202836.5	200965.9	4969.6	ug/L	4969.6	ppb	16:23:14
2	Ba 233.527†	1225305.6	1212654.7	14084	ug/L	14084	ppb	16:23:14
2	Be 313.107†	7255282.4	7189682.6	2835.4	ug/L	2835.4	ppb	16:23:08
2	Cd 226.502†	709810.3	702662.0	9665.7	ug/L	9665.7	ppb	16:23:14
2	Co 228.616†	334283.7	330895.6	9842.8	ug/L	9842.8	ppb	16:23:19
2	Cr 267.716†	1811681.7	1792909.5	23921	ug/L	23921	ppb	16:23:14
2	Cu 324.752†	5766977.0	5699692.1	21023	ug/L	21023	ppb	16:23:08
2	Mn 257.610†	6268047.0	6202880.3	9745.1	ug/L	9745.1	ppb	16:23:08
2	Mo 202.031†	108261.0	107130.9	9685.6	ug/L	9685.6	ppb	16:23:19
2	Ni 231.604†	319699.0	316316.7	9759.7	ug/L	9759.7	ppb	16:23:19

2	P 214.914†	32307.2	31774.7	13158	ug/L	13158	ppb	16:23:19
2	Pb 220.353†	158127.2	156551.6	24863	ug/L	24863	ppb	16:23:19
2	S 181.975 Axial†	41144.1	40678.1	50530	ug/L	50530	ppb	16:23:19
2	Sb 206.836†	27180.3	26866.7	10893	ug/L	10893	ppb	16:23:19
2	Se 196.026†	17112.8	16955.0	10096	ug/L	10096	ppb	16:23:19
2	Si 251.611†	1328799.4	1314524.4	46761	ug/L	46761	ppb	16:23:14
2	Sn 189.927†	45223.8	44743.6	10226	ug/L	10226	ppb	16:23:19
2	Ti 334.940†	5051021.2	5000189.1	9897.3	ug/L	9897.3	ppb	16:23:08
2	Tl 190.801†	22799.9	22600.1	10313	ug/L	10313	ppb	16:23:19
2	U 409.014†	-1291.8	1090.2	-17.326	ug/L	-17.326	ppb	16:23:19
2	V 292.402†	1286038.7	1274415.9	10014	ug/L	10014	ppb	16:23:14
2	Zn 213.857†	1293824.0	1279664.2	13660	ug/L	13660	ppb	16:23:14
2	SiO2†	1343731.3	1329292.9	101460	ug/L	101460	ppb	16:23:51
3	Sc Radial	4792.1	4792.1	101	%			16:22:18
3	Y RADIAL	5032.1	5032.1	99.84	%			16:22:18
3	Al 396.153Radial†	427.8	506.3	-3.9677	ug/L	-3.9677	ppb	16:22:18
3	Ca 317.933Radial†	37.2	18.6	33.354	ug/L	33.354	ppb	16:22:38
3	Fe 238.204 Radial†	-18.3	-25.4	28.923	ug/L	28.923	ppb	16:22:38
3	K 766.490 Radial†	1620218.0	1602960.8	302670	ug/L	302670	ppb	16:22:13
3	Mg 279.077 IEC†	-5.9	-8.0	-213.43	ug/L	-213.43	ppb	16:22:38
3	Na 589.592 Radial†	-130.8	607.5	184.86	ug/L	184.86	ppb	16:22:18
3	Sr 421.552†	1405935.0	1392942.9	9925.9	ug/L	9925.9	ppb	16:22:13
3	Sc 361.383	807594.1	807594.1	102.12	%			16:23:34
3	Y 371.029	703931.9	703931.9	99.567	%			16:23:34
3	Ag 328.068†	-6856.5	-6890.5	5.2640	ug/L	5.2640	ppb	16:23:39
3	As 188.979†	22469.4	22031.1	9638.7	ug/L	9638.7	ppb	16:23:39
3	B 249.677†	205674.8	201625.0	4986.1	ug/L	4986.1	ppb	16:23:34
3	Ba 233.527†	1238522.7	1212789.8	14086	ug/L	14086	ppb	16:23:34
3	Be 313.107†	7263187.7	7121589.0	2808.6	ug/L	2808.6	ppb	16:23:27
3	Cd 226.502†	716594.5	701886.1	9655.0	ug/L	9655.0	ppb	16:23:34
3	Co 228.616†	336055.0	329136.1	9790.4	ug/L	9790.4	ppb	16:23:39
3	Cr 267.716†	1829204.8	1791132.2	23898	ug/L	23898	ppb	16:23:34
3	Cu 324.752†	5802888.1	5674578.6	20930	ug/L	20930	ppb	16:23:27
3	Mn 257.610†	6291355.7	6160189.0	9678.0	ug/L	9678.0	ppb	16:23:27
3	Mo 202.031†	108923.1	106647.6	9641.9	ug/L	9641.9	ppb	16:23:39
3	Ni 231.604†	321192.9	314437.9	9701.7	ug/L	9701.7	ppb	16:23:39
3	P 214.914†	32492.3	31618.3	13091	ug/L	13091	ppb	16:23:39
3	Pb 220.353†	159043.3	155795.9	24743	ug/L	24743	ppb	16:23:39
3	S 181.975 Axial†	41352.9	40452.6	50250	ug/L	50250	ppb	16:23:39
3	Sb 206.836†	27420.6	26817.9	10872	ug/L	10872	ppb	16:23:39
3	Se 196.026†	17189.0	16850.8	10034	ug/L	10034	ppb	16:23:39
3	Si 251.611†	1348883.5	1320302.1	46968	ug/L	46968	ppb	16:23:34
3	Sn 189.927†	45417.7	44460.9	10161	ug/L	10161	ppb	16:23:39
3	Ti 334.940†	5074648.6	4970530.7	9838.6	ug/L	9838.6	ppb	16:23:27
3	Tl 190.801†	22962.5	22521.1	10276	ug/L	10276	ppb	16:23:39
3	U 409.014†	-1133.4	1258.8	-11.678	ug/L	-11.678	ppb	16:23:39
3	V 292.402†	1298780.3	1273450.6	10006	ug/L	10006	ppb	16:23:34
3	Zn 213.857†	1305858.1	1277924.7	13641	ug/L	13641	ppb	16:23:34
3	SiO2†	1335905.2	1307584.4	99797	ug/L	99797	ppb	16:23:57

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	801783.2	101.39	%	0.637				0.63%
Sc Radial	4748.4	100	%	1.4				1.40%
Y 371.029	699790.1	98.982	%	0.5082				0.51%
Y RADIAL	4970.1	98.61	%	1.497				1.52%
Ag 328.068†	-6879.5	5.3498	ug/L	0.20935	5.3498	ppb	0.20935	3.91%
Al 396.153Radial†	509.6	-1.3779	ug/L	11.94097	-1.3779	ppb	11.94097	866.60%
As 188.979†	22033.7	9640.2	ug/L	46.69	9640.2	ppb	46.69	0.48%
QC value within limits for As 188.979 Recovery = 96.40%								
B 249.677†	201095.8	4972.9	ug/L	11.89	4972.9	ppb	11.89	0.24%
QC value within limits for B 249.677 Recovery = 99.46%								
Ba 233.527†	1212708.3	14085	ug/L	0.8	14085	ppb	0.8	0.01%
QC value within limits for Ba 233.527 Recovery = 93.90%								
Be 313.107†	7175885.4	2829.9	ug/L	19.23	2829.9	ppb	19.23	0.68%
QC value within limits for Be 313.107 Recovery = 94.33%								
Ca 317.933Radial†	17.2	30.823	ug/L	2.9042	30.823	ppb	2.9042	9.42%
Cd 226.502†	702402.2	9662.1	ug/L	6.15	9662.1	ppb	6.15	0.06%
QC value within limits for Cd 226.502 Recovery = 96.62%								

```
Co 228.616†          329569.4      9803.2 ug/L        34.93      9803.2 ppb        34.93   0.36%
   QC value within limits for Co 228.616  Recovery = 98.03%
Cr 267.716†         1792527.5       23916 ug/L         16.7       23916 ppb         16.7   0.07%
   QC value within limits for Cr 267.716  Recovery = 95.66%
Cu 324.752†         5697483.7       21015 ug/L         80.7       21015 ppb         80.7   0.38%
   QC value within limits for Cu 324.752  Recovery = 105.07%
Fe 238.204 Radial†      -24.6      38.343 ug/L      18.3713      38.343 ppb      18.3713  47.91%
K 766.490 Radial†   1598669.8      301860 ug/L       4810.3      301860 ppb       4810.3   1.59%
   QC value within limits for K 766.490 Radial  Recovery = 100.62%
Mg 279.077 IEC†          -7.4     -189.55 ug/L       28.031     -189.55 ppb       28.031  14.79%
Mn 257.610†         6195503.0      9733.5 ug/L        50.69      9733.5 ppb        50.69   0.52%
   QC value within limits for Mn 257.610  Recovery = 97.34%
Mo 202.031†          106736.0      9649.9 ug/L        32.46      9649.9 ppb        32.46   0.34%
   QC value within limits for Mo 202.031  Recovery = 96.50%
Na 589.592 Radial†      695.9      211.74 ug/L       23.425      211.74 ppb       23.425  11.06%
Ni 231.604†          314934.4      9717.0 ug/L        37.42      9717.0 ppb        37.42   0.39%
   QC value within limits for Ni 231.604  Recovery = 97.17%
P 214.914†            31632.9       13082 ug/L         80.2       13082 ppb         80.2   0.61%
   QC value less than the lower limit for P 214.914  Recovery = 87.21%
Pb 220.353†          155982.3       24772 ug/L         79.9       24772 ppb         79.9   0.32%
   QC value within limits for Pb 220.353  Recovery = 99.09%
S 181.975 Axial†      40466.8       50268 ug/L        254.0       50268 ppb        254.0   0.51%
   QC value within limits for S 181.975 Axial  Recovery = 100.54%
Sb 206.836†           26772.5       10855 ug/L         49.2       10855 ppb         49.2   0.45%
   QC value within limits for Sb 206.836  Recovery = 108.55%
Se 196.026†           16857.0       10037 ug/L         56.6       10037 ppb         56.6   0.56%
   QC value within limits for Se 196.026  Recovery = 100.37%
Si 251.611†         1316375.0       46828 ug/L        121.4       46828 ppb        121.4   0.26%
   QC value within limits for Si 251.611  Recovery = 93.66%
Sn 189.927†           44590.2       10191 ug/L         32.7       10191 ppb         32.7   0.32%
   QC value within limits for Sn 189.927  Recovery = 101.91%
Sr 421.552†         1386903.7      9882.9 ug/L       166.70      9882.9 ppb       166.70   1.69%
   QC value within limits for Sr 421.552  Recovery = 98.83%
Ti 334.940†         4996045.7      9889.1 ug/L        46.98      9889.1 ppb        46.98   0.48%
   QC value within limits for Ti 334.940  Recovery = 98.89%
Tl 190.801†           22522.2       10277 ug/L         34.7       10277 ppb         34.7   0.34%
   QC value within limits for Tl 190.801  Recovery = 102.77%
U 409.014†             1163.2     -14.892 ug/L       2.9035     -14.892 ppb       2.9035  19.50%
V 292.402†          1274249.7       10012 ug/L          5.6       10012 ppb          5.6   0.06%
   QC value within limits for V 292.402  Recovery = 100.12%
Zn 213.857†         1279151.7       13654 ug/L         11.3       13654 ppb         11.3   0.08%
   QC value within limits for Zn 213.857  Recovery = 91.03%
SiO2†               1325400.5      101160 ug/L       1241.6      101160 ppb       1241.6   1.23%
   QC value within limits for SiO2  Recovery = 94.54%
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 3/4/2010 16:39:42 **Plasma On Time: 3/1/2010 06:57:40**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\030410.sif
Batch ID:
Results Data Set: 030410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/4/2010 14:28:10**
IEC File: 011110.iec **MSF File:**
Method Description:

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

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/4/2010 16:39:43**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4736.9	4736.9	99.8	%			16:41:35
1	Y RADIAL	4989.6	4989.6	99.00	%			16:41:35
1	Al 396.153Radial†	5177.7	5272.2	4803.8	ug/L	4803.8	ppb	16:41:35

1	Ca 317.933Radial†	2763.2	2751.4	4923.6 ug/L	4923.6 ppb	16:41:55
1	Fe 238.204 Radial†	491.1	484.9	5047.7 ug/L	5047.7 ppb	16:41:55
1	K 766.490 Radial†	29542.9	27304.7	5149.7 ug/L	5149.7 ppb	16:41:35
1	Mg 279.077 IEC†	130.3	128.5	5061.6 ug/L	5061.6 ppb	16:41:55
1	Na 589.592 Radial†	31779.9	32590.7	9917.0 ug/L	9917.0 ppb	16:41:35
1	Sr 421.552†	70380.4	70524.8	502.51 ug/L	502.51 ppb	16:41:35
1	Sc 361.383	796197.2	796197.2	100.68 %		16:42:52
1	Y 371.029	705184.9	705184.9	99.745 %		16:42:52
1	Ag 328.068†	97827.2	96989.0	490.24 ug/L	490.24 ppb	16:42:57
1	As 188.979†	1122.5	1143.5	501.28 ug/L	501.28 ppb	16:43:17
1	B 249.677†	19785.5	19875.9	492.07 ug/L	492.07 ppb	16:42:57
1	Ba 233.527†	42583.1	42299.1	491.75 ug/L	491.75 ppb	16:42:57
1	Be 313.107†	1247198.8	1248095.8	489.40 ug/L	489.40 ppb	16:42:52
1	Cd 226.502†	35966.4	35905.8	493.48 ug/L	493.48 ppb	16:42:57
1	Co 228.616†	16490.5	16443.3	489.29 ug/L	489.29 ppb	16:43:17
1	Cr 267.716†	37194.5	36881.7	492.39 ug/L	492.39 ppb	16:42:57
1	Cu 324.752†	139384.4	130717.9	482.14 ug/L	482.14 ppb	16:42:57
1	Mn 257.610†	313822.3	311269.3	489.31 ug/L	489.31 ppb	16:42:57
1	Mo 202.031†	5465.8	5416.8	490.18 ug/L	490.18 ppb	16:43:17
1	Ni 231.604†	16116.7	15927.2	491.43 ug/L	491.43 ppb	16:42:57
1	P 214.914†	4725.9	4495.1	2344.5 ug/L	2344.5 ppb	16:43:17
1	Pb 220.353†	3085.0	3121.7	497.31 ug/L	497.31 ppb	16:43:17
1	S 181.975 Axial†	828.2	781.5	969.94 ug/L	969.94 ppb	16:43:17
1	Sb 206.836†	1283.9	1242.4	504.68 ug/L	504.68 ppb	16:43:17
1	Se 196.026†	806.0	819.5	499.81 ug/L	499.81 ppb	16:43:17
1	Si 251.611†	68941.1	67923.6	2416.4 ug/L	2416.4 ppb	16:42:57
1	Sn 189.927†	2171.4	2143.7	490.49 ug/L	490.49 ppb	16:43:17
1	Ti 334.940†	245516.7	245190.9	485.61 ug/L	485.61 ppb	16:42:57
1	Tl 190.801†	1047.5	1076.1	491.14 ug/L	491.14 ppb	16:43:17
1	U 409.014†	12268.9	14554.5	480.93 ug/L	480.93 ppb	16:42:57
1	V 292.402†	61671.9	62914.1	495.07 ug/L	495.07 ppb	16:42:57
1	Zn 213.857†	46762.3	45648.8	485.96 ug/L	485.96 ppb	16:42:57
1	SiO2†	69338.3	68309.0	5213.9 ug/L	5213.9 ppb	16:44:24
2	Sc Radial	4737.8	4737.8	99.8 %		16:42:00
2	Y RADIAL	4958.1	4958.1	98.37 %		16:42:00
2	Al 396.153Radial†	5166.6	5260.1	4792.7 ug/L	4792.7 ppb	16:42:00
2	Ca 317.933Radial†	2806.6	2794.3	5000.6 ug/L	5000.6 ppb	16:42:20
2	Fe 238.204 Radial†	502.7	496.5	5167.4 ug/L	5167.4 ppb	16:42:20
2	K 766.490 Radial†	29665.6	27421.9	5171.8 ug/L	5171.8 ppb	16:42:00
2	Mg 279.077 IEC†	133.0	131.2	5168.4 ug/L	5168.4 ppb	16:42:20
2	Na 589.592 Radial†	32106.4	32911.7	10015 ug/L	10015 ppb	16:42:00
2	Sr 421.552†	70515.8	70646.6	503.38 ug/L	503.38 ppb	16:42:00
2	Sc 361.383	801647.2	801647.2	101.37 %		16:43:23
2	Y 371.029	709722.2	709722.2	100.39 %		16:43:23
2	Ag 328.068†	99283.4	97765.1	494.18 ug/L	494.18 ppb	16:43:28
2	As 188.979†	1129.1	1142.5	500.90 ug/L	500.90 ppb	16:43:48
2	B 249.677†	20120.2	20072.5	496.93 ug/L	496.93 ppb	16:43:28
2	Ba 233.527†	43223.9	42643.7	495.76 ug/L	495.76 ppb	16:43:28
2	Be 313.107†	1259615.2	1251922.7	490.91 ug/L	490.91 ppb	16:43:23
2	Cd 226.502†	36581.0	36269.2	498.47 ug/L	498.47 ppb	16:43:28
2	Co 228.616†	16625.7	16465.3	489.93 ug/L	489.93 ppb	16:43:48
2	Cr 267.716†	37736.9	37165.6	496.18 ug/L	496.18 ppb	16:43:28
2	Cu 324.752†	141866.3	132225.1	487.70 ug/L	487.70 ppb	16:43:28
2	Mn 257.610†	319409.6	314661.9	494.65 ug/L	494.65 ppb	16:43:28
2	Mo 202.031†	5502.5	5416.1	490.13 ug/L	490.13 ppb	16:43:48
2	Ni 231.604†	16389.2	16087.2	496.36 ug/L	496.36 ppb	16:43:28
2	P 214.914†	4759.7	4496.5	2344.0 ug/L	2344.0 ppb	16:43:48
2	Pb 220.353†	3097.3	3113.0	495.92 ug/L	495.92 ppb	16:43:48
2	S 181.975 Axial†	833.7	781.4	969.80 ug/L	969.80 ppb	16:43:48
2	Sb 206.836†	1277.7	1227.6	498.87 ug/L	498.87 ppb	16:43:48
2	Se 196.026†	804.9	813.0	496.21 ug/L	496.21 ppb	16:43:48
2	Si 251.611†	70188.3	68688.4	2443.6 ug/L	2443.6 ppb	16:43:28
2	Sn 189.927†	2183.1	2140.5	489.78 ug/L	489.78 ppb	16:43:48
2	Ti 334.940†	249710.4	247670.1	490.51 ug/L	490.51 ppb	16:43:28
2	Tl 190.801†	1057.2	1078.7	492.36 ug/L	492.36 ppb	16:43:48
2	U 409.014†	12672.1	14869.5	491.35 ug/L	491.35 ppb	16:43:28
2	V 292.402†	62639.3	63452.0	499.24 ug/L	499.24 ppb	16:43:28
2	Zn 213.857†	47419.9	45981.7	489.48 ug/L	489.48 ppb	16:43:28
2	SiO2†	68856.6	67365.6	5141.7 ug/L	5141.7 ppb	16:44:29
3	Sc Radial	4713.5	4713.5	99.3 %		16:42:25
3	Y RADIAL	4946.6	4946.6	98.14 %		16:42:25

3	Al 396.153Radial†	5181.2	5301.6	4830.9 ug/L	4830.9 ppb	16:42:25
3	Ca 317.933Radial†	2784.4	2786.4	4986.4 ug/L	4986.4 ppb	16:42:45
3	Fe 238.204 Radial†	498.2	494.6	5147.3 ug/L	5147.3 ppb	16:42:45
3	K 766.490 Radial†	29481.3	27390.0	5165.7 ug/L	5165.7 ppb	16:42:25
3	Mg 279.077 IEC†	135.6	134.5	5298.9 ug/L	5298.9 ppb	16:42:45
3	Na 589.592 Radial†	32184.2	33156.5	10089 ug/L	10089 ppb	16:42:25
3	Sr 421.552†	70772.9	71271.3	507.83 ug/L	507.83 ppb	16:42:25
3	Sc 361.383	809019.7	809019.7	102.30 %		16:43:54
3	Y 371.029	715486.5	715486.5	101.20 %		16:43:54
3	Ag 328.068†	97848.6	95470.0	482.62 ug/L	482.62 ppb	16:43:59
3	As 188.979†	1124.6	1127.9	494.45 ug/L	494.45 ppb	16:44:19
3	B 249.677†	19881.6	19658.3	486.65 ug/L	486.65 ppb	16:43:59
3	Ba 233.527†	42703.1	41746.0	485.33 ug/L	485.33 ppb	16:43:59
3	Be 313.107†	1265218.0	1246075.8	488.60 ug/L	488.60 ppb	16:43:54
3	Cd 226.502†	36075.7	35446.4	487.15 ug/L	487.15 ppb	16:43:59
3	Co 228.616†	16632.5	16322.6	485.70 ug/L	485.70 ppb	16:44:19
3	Cr 267.716†	37333.0	36431.6	486.38 ug/L	486.38 ppb	16:43:59
3	Cu 324.752†	139248.0	128390.4	473.57 ug/L	473.57 ppb	16:43:59
3	Mn 257.610†	314734.4	307220.6	482.95 ug/L	482.95 ppb	16:43:59
3	Mo 202.031†	5502.4	5366.6	485.65 ug/L	485.65 ppb	16:44:19
3	Ni 231.604†	16181.5	15736.9	485.55 ug/L	485.55 ppb	16:43:59
3	P 214.914†	4741.2	4435.7	2313.8 ug/L	2313.8 ppb	16:44:19
3	Pb 220.353†	3098.4	3086.2	491.67 ug/L	491.67 ppb	16:44:19
3	S 181.975 Axial†	831.4	771.7	957.66 ug/L	957.66 ppb	16:44:19
3	Sb 206.836†	1288.7	1226.8	498.42 ug/L	498.42 ppb	16:44:19
3	Se 196.026†	815.1	815.7	497.76 ug/L	497.76 ppb	16:44:19
3	Si 251.611†	69136.4	67029.2	2384.5 ug/L	2384.5 ppb	16:43:59
3	Sn 189.927†	2186.0	2123.7	485.94 ug/L	485.94 ppb	16:44:19
3	Ti 334.940†	245616.9	241423.9	478.14 ug/L	478.14 ppb	16:43:59
3	Tl 190.801†	1057.4	1069.3	488.01 ug/L	488.01 ppb	16:44:19
3	U 409.014†	12134.3	14229.8	470.16 ug/L	470.16 ppb	16:43:59
3	V 292.402†	61807.0	62075.3	488.47 ug/L	488.47 ppb	16:43:59
3	Zn 213.857†	46798.6	44948.1	478.47 ug/L	478.47 ppb	16:43:59
3	SiO2†	69168.5	67051.5	5117.8 ug/L	5117.8 ppb	16:44:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	802288.0	101.45	%	0.814				0.80%
Sc Radial	4729.4	99.6	%	0.29				0.29%
Y 371.029	710131.2	100.44	%	0.730				0.73%
Y RADIAL	4964.8	98.50	%	0.441				0.45%
Ag 328.068†	96741.4	489.02	ug/L	5.877	489.02	ppb	5.877	1.20%
QC value within limits for Ag 328.068 Recovery = 97.80%								
Al 396.153Radial†	5277.9	4809.1	ug/L	19.67	4809.1	ppb	19.67	0.41%
QC value within limits for Al 396.153Radial Recovery = 96.18%								
As 188.979†	1138.0	498.88	ug/L	3.836	498.88	ppb	3.836	0.77%
QC value within limits for As 188.979 Recovery = 99.78%								
B 249.677†	19868.9	491.88	ug/L	5.144	491.88	ppb	5.144	1.05%
QC value within limits for B 249.677 Recovery = 98.38%								
Ba 233.527†	42229.6	490.95	ug/L	5.263	490.95	ppb	5.263	1.07%
QC value within limits for Ba 233.527 Recovery = 98.19%								
Be 313.107†	1248698.1	489.64	ug/L	1.175	489.64	ppb	1.175	0.24%
QC value within limits for Be 313.107 Recovery = 97.93%								
Ca 317.933Radial†	2777.4	4970.2	ug/L	40.94	4970.2	ppb	40.94	0.82%
QC value within limits for Ca 317.933Radial Recovery = 99.40%								
Cd 226.502†	35873.8	493.04	ug/L	5.673	493.04	ppb	5.673	1.15%
QC value within limits for Cd 226.502 Recovery = 98.61%								
Co 228.616†	16410.4	488.31	ug/L	2.281	488.31	ppb	2.281	0.47%
QC value within limits for Co 228.616 Recovery = 97.66%								
Cr 267.716†	36826.3	491.65	ug/L	4.939	491.65	ppb	4.939	1.00%
QC value within limits for Cr 267.716 Recovery = 98.33%								
Cu 324.752†	130444.4	481.14	ug/L	7.120	481.14	ppb	7.120	1.48%
QC value within limits for Cu 324.752 Recovery = 96.23%								
Fe 238.204 Radial†	492.0	5120.8	ug/L	64.09	5120.8	ppb	64.09	1.25%
QC value within limits for Fe 238.204 Radial Recovery = 102.42%								
K 766.490 Radial†	27372.2	5162.4	ug/L	11.41	5162.4	ppb	11.41	0.22%
QC value within limits for K 766.490 Radial Recovery = 103.25%								
Mg 279.077 IEC†	131.4	5176.3	ug/L	118.84	5176.3	ppb	118.84	2.30%
QC value within limits for Mg 279.077 IEC Recovery = 103.53%								

```
Mn 257.610†          311050.6      488.97 ug/L        5.857      488.97 ppb         5.857   1.20%
   QC value within limits for Mn 257.610  Recovery = 97.79%
Mo 202.031†            5399.8      488.65 ug/L        2.603      488.65 ppb         2.603   0.53%
   QC value within limits for Mo 202.031  Recovery = 97.73%
Na 589.592 Radial†    32886.3       10007 ug/L         86.3       10007 ppb          86.3   0.86%
   QC value within limits for Na 589.592 Radial  Recovery = 100.07%
Ni 231.604†           15917.1      491.11 ug/L        5.413      491.11 ppb         5.413   1.10%
   QC value within limits for Ni 231.604  Recovery = 98.22%
P 214.914†             4475.8      2334.1 ug/L        17.56      2334.1 ppb         17.56   0.75%
   QC value within limits for P 214.914  Recovery = 93.36%
Pb 220.353†            3106.9      494.96 ug/L        2.938      494.96 ppb         2.938   0.59%
   QC value within limits for Pb 220.353  Recovery = 98.99%
S 181.975 Axial†        778.2      965.80 ug/L        7.049      965.80 ppb         7.049   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 96.58%
Sb 206.836†            1232.3      500.66 ug/L        3.492      500.66 ppb         3.492   0.70%
   QC value within limits for Sb 206.836  Recovery = 100.13%
Se 196.026†             816.1      497.93 ug/L        1.805      497.93 ppb         1.805   0.36%
   QC value within limits for Se 196.026  Recovery = 99.59%
Si 251.611†           67880.4      2414.8 ug/L        29.59      2414.8 ppb         29.59   1.23%
   QC value within limits for Si 251.611  Recovery = 96.59%
Sn 189.927†            2136.0      488.74 ug/L        2.451      488.74 ppb         2.451   0.50%
   QC value within limits for Sn 189.927  Recovery = 97.75%
Sr 421.552†           70814.2      504.57 ug/L        2.854      504.57 ppb         2.854   0.57%
   QC value within limits for Sr 421.552  Recovery = 100.91%
Ti 334.940†          244761.6      484.75 ug/L        6.231      484.75 ppb         6.231   1.29%
   QC value within limits for Ti 334.940  Recovery = 96.95%
Tl 190.801†            1074.7      490.50 ug/L        2.246      490.50 ppb         2.246   0.46%
   QC value within limits for Tl 190.801  Recovery = 98.10%
U 409.014†            14551.3      480.81 ug/L       10.593      480.81 ppb        10.593   2.20%
   QC value within limits for U 409.014  Recovery = 96.16%
V 292.402†            62813.8      494.26 ug/L        5.431      494.26 ppb         5.431   1.10%
   QC value within limits for V 292.402  Recovery = 98.85%
Zn 213.857†           45526.2      484.64 ug/L        5.626      484.64 ppb         5.626   1.16%
   QC value within limits for Zn 213.857  Recovery = 96.93%
SiO2†                 67575.4      5157.8 ug/L        50.03      5157.8 ppb         50.03   0.97%
   QC value within limits for SiO2  Recovery = 96.45%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/4/2010 16:46:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4765.4	4765.4	100	%			16:48:37
1	Y RADIAL	5023.8	5023.8	99.67	%			16:48:37
1	Al 396.153Radial†	-88.3	-5.5	-5.0572	ug/L	-5.0572	ppb	16:48:57
1	Ca 317.933Radial†	17.6	-0.7	-1.3236	ug/L	-1.3236	ppb	16:48:57
1	Fe 238.204 Radial†	9.1	1.8	18.563	ug/L	18.563	ppb	16:48:57
1	K 766.490 Radial†	2684.2	367.6	69.415	ug/L	69.415	ppb	16:48:37
1	Mg 279.077 IEC†	1.5	-0.6	-25.300	ug/L	-25.300	ppb	16:48:57
1	Na 589.592 Radial†	-673.9	65.7	19.986	ug/L	19.986	ppb	16:48:37
1	Sr 421.552†	6.3	-12.6	-0.0900	ug/L	-0.0900	ppb	16:48:37
1	Sc 361.383	802415.4	802415.4	101.47	%			16:49:54
1	Y 371.029	720123.2	720123.2	101.86	%			16:49:54
1	Ag 328.068†	206.2	26.8	0.1383	ug/L	0.1383	ppb	16:49:54
1	As 188.979†	-21.9	7.0	3.0521	ug/L	3.0521	ppb	16:50:14
1	B 249.677†	284.1	504.2	12.535	ug/L	12.535	ppb	16:50:14
1	Ba 233.527†	12.3	16.2	0.1884	ug/L	0.1884	ppb	16:50:14
1	Be 313.107†	-9404.7	63.8	0.0253	ug/L	0.0253	ppb	16:49:54
1	Cd 226.502†	-182.1	3.1	0.0422	ug/L	0.0422	ppb	16:50:14
1	Co 228.616†	-55.2	9.9	0.2950	ug/L	0.2950	ppb	16:50:14
1	Cr 267.716†	72.2	10.0	0.1325	ug/L	0.1325	ppb	16:50:14
1	Cu 324.752†	7764.0	-72.0	-0.2664	ug/L	-0.2664	ppb	16:49:54
1	Mn 257.610†	470.4	33.2	0.0550	ug/L	0.0550	ppb	16:50:14
1	Mo 202.031†	12.8	0.7	0.0604	ug/L	0.0604	ppb	16:50:14
1	Ni 231.604†	98.7	16.8	0.5188	ug/L	0.5188	ppb	16:50:14
1	P 214.914†	206.6	4.7	2.6217	ug/L	2.6217	ppb	16:50:14
1	Pb 220.353†	-47.5	10.7	1.6901	ug/L	1.6901	ppb	16:50:14
1	S 181.975 Axial†	42.2	0.5	0.6451	ug/L	0.6451	ppb	16:50:14
1	Sb 206.836†	45.1	11.6	4.5864	ug/L	4.5864	ppb	16:50:14
1	Se 196.026†	-18.7	0.6	0.3678	ug/L	0.3678	ppb	16:50:14
1	Si 251.611†	606.6	46.7	1.6634	ug/L	1.6634	ppb	16:50:14
1	Sn 189.927†	22.8	9.4	2.1374	ug/L	2.1374	ppb	16:50:14
1	Ti 334.940†	-1285.1	68.2	0.1356	ug/L	0.1356	ppb	16:49:54
1	Tl 190.801†	-32.0	4.2	1.8994	ug/L	1.8994	ppb	16:50:14
1	U 409.014†	-2305.4	96.6	3.1990	ug/L	3.1990	ppb	16:49:54
1	V 292.402†	-1657.2	26.1	0.2064	ug/L	0.2064	ppb	16:49:54
1	Zn 213.857†	755.3	-52.9	-0.5743	ug/L	-0.5743	ppb	16:50:14
1	SiO2†	597.2	28.2	2.1591	ug/L	2.1591	ppb	16:51:10
2	Sc Radial	4868.3	4868.3	103	%			16:49:02
2	Y RADIAL	5177.0	5177.0	102.7	%			16:49:02
2	Al 396.153Radial†	-81.2	3.3	2.9928	ug/L	2.9928	ppb	16:49:22
2	Ca 317.933Radial†	19.9	1.2	2.1274	ug/L	2.1274	ppb	16:49:22
2	Fe 238.204 Radial†	9.2	1.7	17.481	ug/L	17.481	ppb	16:49:22
2	K 766.490 Radial†	2729.9	355.7	67.148	ug/L	67.148	ppb	16:49:02
2	Mg 279.077 IEC†	2.5	0.3	12.349	ug/L	12.349	ppb	16:49:22
2	Na 589.592 Radial†	-645.0	108.0	32.877	ug/L	32.877	ppb	16:49:02
2	Sr 421.552†	27.6	8.0	0.0567	ug/L	0.0567	ppb	16:49:02
2	Sc 361.383	789630.6	789630.6	99.851	%			16:50:19
2	Y 371.029	707736.1	707736.1	100.11	%			16:50:19
2	Ag 328.068†	238.5	62.4	0.3204	ug/L	0.3204	ppb	16:50:19
2	As 188.979†	-18.9	9.7	4.2266	ug/L	4.2266	ppb	16:50:39
2	B 249.677†	244.2	468.8	11.656	ug/L	11.656	ppb	16:50:39
2	Ba 233.527†	-13.1	-9.1	-0.1054	ug/L	-0.1054	ppb	16:50:39
2	Be 313.107†	-9303.0	15.6	0.0063	ug/L	0.0063	ppb	16:50:19
2	Cd 226.502†	-167.8	14.5	0.1979	ug/L	0.1979	ppb	16:50:39
2	Co 228.616†	-61.6	2.7	0.0805	ug/L	0.0805	ppb	16:50:39
2	Cr 267.716†	70.9	9.8	0.1315	ug/L	0.1315	ppb	16:50:39
2	Cu 324.752†	7609.4	-103.0	-0.3778	ug/L	-0.3778	ppb	16:50:19
2	Mn 257.610†	448.3	18.6	0.0304	ug/L	0.0304	ppb	16:50:39
2	Mo 202.031†	18.4	6.5	0.5845	ug/L	0.5845	ppb	16:50:39
2	Ni 231.604†	84.1	3.8	0.1162	ug/L	0.1162	ppb	16:50:39

2	P 214.914†	217.5	19.0	10.352 ug/L	10.352 ppb	16:50:39
2	Pb 220.353†	-56.4	1.0	0.1598 ug/L	0.1598 ppb	16:50:39
2	S 181.975 Axial†	46.8	5.8	7.1833 ug/L	7.1833 ppb	16:50:39
2	Sb 206.836†	47.0	14.2	5.6030 ug/L	5.6030 ppb	16:50:39
2	Se 196.026†	-15.1	3.8	2.3131 ug/L	2.3131 ppb	16:50:39
2	Si 251.611†	595.0	44.7	1.5876 ug/L	1.5876 ppb	16:50:39
2	Sn 189.927†	15.7	2.7	0.6174 ug/L	0.6174 ppb	16:50:39
2	Ti 334.940†	-1289.7	43.2	0.0856 ug/L	0.0856 ppb	16:50:19
2	Tl 190.801†	-36.6	-1.0	-0.4384 ug/L	-0.4384 ppb	16:50:39
2	U 409.014†	-2420.1	-55.1	-1.8306 ug/L	-1.8306 ppb	16:50:19
2	V 292.402†	-1651.1	5.7	0.0469 ug/L	0.0469 ppb	16:50:19
2	Zn 213.857†	756.7	-39.5	-0.4272 ug/L	-0.4272 ppb	16:50:39
2	SiO2†	613.5	54.0	4.1199 ug/L	4.1199 ppb	16:51:15
3	Sc Radial	4746.7	4746.7	100.0 %		16:49:27
3	Y RADIAL	4980.1	4980.1	98.81 %		16:49:27
3	Al 396.153Radial†	-85.8	-3.4	-3.0575 ug/L	-3.0575 ppb	16:49:47
3	Ca 317.933Radial†	21.7	3.4	6.1074 ug/L	6.1074 ppb	16:49:47
3	Fe 238.204 Radial†	11.4	4.1	42.714 ug/L	42.714 ppb	16:49:47
3	K 766.490 Radial†	2652.1	346.1	65.346 ug/L	65.346 ppb	16:49:27
3	Mg 279.077 IEC†	0.1	-2.0	-80.571 ug/L	-80.571 ppb	16:49:47
3	Na 589.592 Radial†	-688.1	48.7	14.833 ug/L	14.833 ppb	16:49:27
3	Sr 421.552†	32.6	13.6	0.0970 ug/L	0.0970 ppb	16:49:27
3	Sc 361.383	788724.2	788724.2	99.736 %		16:50:44
3	Y 371.029	705770.3	705770.3	99.827 %		16:50:44
3	Ag 328.068†	160.8	-15.2	-0.0612 ug/L	-0.0612 ppb	16:50:44
3	As 188.979†	-21.8	6.7	2.9311 ug/L	2.9311 ppb	16:51:04
3	B 249.677†	248.7	473.6	11.769 ug/L	11.769 ppb	16:51:04
3	Ba 233.527†	0.6	4.7	0.0543 ug/L	0.0543 ppb	16:51:04
3	Be 313.107†	-9406.1	-98.5	-0.0383 ug/L	-0.0383 ppb	16:50:44
3	Cd 226.502†	-150.7	31.5	0.4274 ug/L	0.4274 ppb	16:51:04
3	Co 228.616†	-52.7	11.5	0.3405 ug/L	0.3405 ppb	16:51:04
3	Cr 267.716†	97.7	36.8	0.4925 ug/L	0.4925 ppb	16:51:04
3	Cu 324.752†	7686.4	-17.0	-0.0576 ug/L	-0.0576 ppb	16:50:44
3	Mn 257.610†	438.9	9.7	0.0227 ug/L	0.0227 ppb	16:51:04
3	Mo 202.031†	4.4	-7.6	-0.6817 ug/L	-0.6817 ppb	16:51:04
3	Ni 231.604†	75.8	-4.4	-0.1375 ug/L	-0.1375 ppb	16:51:04
3	P 214.914†	208.1	9.9	5.3501 ug/L	5.3501 ppb	16:51:04
3	Pb 220.353†	-66.0	-8.7	-1.3869 ug/L	-1.3869 ppb	16:51:04
3	S 181.975 Axial†	50.3	9.4	11.676 ug/L	11.676 ppb	16:51:04
3	Sb 206.836†	46.1	13.4	5.2787 ug/L	5.2787 ppb	16:51:04
3	Se 196.026†	-10.7	8.2	4.9835 ug/L	4.9835 ppb	16:51:04
3	Si 251.611†	586.5	36.9	1.3255 ug/L	1.3255 ppb	16:51:04
3	Sn 189.927†	25.9	12.9	2.9469 ug/L	2.9469 ppb	16:51:04
3	Ti 334.940†	-1268.9	62.5	0.1333 ug/L	0.1333 ppb	16:50:44
3	Tl 190.801†	-31.2	4.5	2.0223 ug/L	2.0223 ppb	16:51:04
3	U 409.014†	-2522.5	-160.5	-5.3290 ug/L	-5.3290 ppb	16:50:44
3	V 292.402†	-1721.9	-67.1	-0.5492 ug/L	-0.5492 ppb	16:50:44
3	Zn 213.857†	764.0	-31.3	-0.3412 ug/L	-0.3412 ppb	16:51:04
3	SiO2†	618.7	60.0	4.6102 ug/L	4.6102 ppb	16:51:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	793590.0	100.35	%	0.968				0.96%
Sc Radial	4793.5	101	%	1.4				1.37%
Y 371.029	711209.9	100.60	%	1.101				1.09%
Y RADIAL	5060.3	100.4	%	2.05				2.04%
Ag 328.068†	24.6	0.1325	ug/L	0.19087	0.1325	ppb	0.19087	144.06%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.9	-1.7073	ug/L	4.19142	-1.7073	ppb	4.19142	245.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.8	3.4033	ug/L	0.71558	3.4033	ppb	0.71558	21.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	482.2	11.987	ug/L	0.4784	11.987	ppb	0.4784	3.99%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.9	0.0458	ug/L	0.14713	0.0458	ppb	0.14713	321.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-6.4	-0.0022	ug/L	0.03261	-0.0022	ppb	0.03261	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.3	2.3038	ug/L	3.71864	2.3038	ppb	3.71864	161.42%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.4      0.2225 ug/L       0.19378      0.2225 ppb        0.19378  87.10%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.0      0.2387 ug/L       0.13884      0.2387 ppb        0.13884  58.18%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.8      0.2522 ug/L       0.20816      0.2522 ppb        0.20816  82.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -64.0     -0.2339 ug/L       0.16257     -0.2339 ppb        0.16257  69.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.5      26.253 ug/L       14.2663      26.253 ppb        14.2663  54.34%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         356.5      67.303 ug/L        2.0388      67.303 ppb         2.0388   3.03%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -31.174 ug/L       46.7375     -31.174 ppb        46.7375 149.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                20.5      0.0360 ug/L       0.01686      0.0360 ppb        0.01686  46.83%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.2     -0.0122 ug/L       0.63622     -0.0122 ppb        0.63622 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         74.2      22.565 ug/L        9.2944      22.565 ppb         9.2944  41.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.4      0.1658 ug/L       0.33096      0.1658 ppb        0.33096 199.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 11.2      6.1078 ug/L       3.92026      6.1078 ppb        3.92026  64.18%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.0      0.1543 ug/L       1.53848      0.1543 ppb        1.53848 996.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.2      6.5016 ug/L       5.54716      6.5016 ppb        5.54716  85.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                13.1      5.1560 ug/L       0.51927      5.1560 ppb        0.51927  10.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.2      2.5548 ug/L       2.31730      2.5548 ppb        2.31730  90.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                42.8      1.5255 ug/L       0.17728      1.5255 ppb        0.17728  11.62%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.3      1.9006 ug/L       1.18267      1.9006 ppb        1.18267  62.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 3.0      0.0212 ug/L       0.09843      0.0212 ppb        0.09843 463.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                58.0      0.1182 ug/L       0.02825      0.1182 ppb        0.02825  23.91%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.6      1.1611 ug/L       1.38660      1.1611 ppb        1.38660 119.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -39.7     -1.3202 ug/L       4.28687     -1.3202 ppb        4.28687 324.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -11.8     -0.0986 ug/L       0.39829     -0.0986 ppb        0.39829 403.87%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -41.2     -0.4476 ug/L       0.11784     -0.4476 ppb        0.11784  26.33%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      47.4      3.6298 ug/L       1.29698      3.6298 ppb        1.29698  35.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: LR1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 3/4/2010 16:53:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4690.1	4690.1	98.8	%			16:55:25
1	Y RADIAL	4977.1	4977.1	98.75	%			16:55:25
1	Al 396.153Radial†	-110.5	-29.3	-25.557	ug/L	-25.557	ppb	16:55:45
1	Ca 317.933Radial†	13.4	-4.7	-8.4450	ug/L	-8.4450	ppb	16:55:45
1	Fe 238.204 Radial†	36469.2	36911.6	383090	ug/L	383090	ppb	16:55:25
1	K 766.490 Radial†	2275.1	-3.6	-0.6300	ug/L	-0.6300	ppb	16:55:25
1	Mg 279.077 IEC†	9.9	7.9	-90.518	ug/L	-90.518	ppb	16:55:45
1	Na 589.592 Radial†	-704.6	23.8	7.2475	ug/L	7.2475	ppb	16:55:25
1	Sr 421.552†	81.5	63.5	0.4529	ug/L	0.4529	ppb	16:55:25
1	Sc 361.383	784172.3	784172.3	99.160	%			16:56:43
1	Y 371.029	698904.4	698904.4	98.856	%			16:56:43
1	Ag 328.068†	-21924.3	-22286.4	5.9643	ug/L	5.9643	ppb	16:56:43
1	As 188.979†	-165.1	-137.9	29.877	ug/L	29.877	ppb	16:57:03
1	B 249.677†	1627.6	1865.6	-15.864	ug/L	-15.864	ppb	16:56:43
1	Ba 233.527†	-1480.7	-1489.2	-5.4968	ug/L	-5.4968	ppb	16:56:43
1	Be 313.107†	-9134.1	121.1	0.0471	ug/L	0.0471	ppb	16:56:43
1	Cd 226.502†	2629.8	2834.7	-0.5874	ug/L	-0.5874	ppb	16:56:43
1	Co 228.616†	474.6	542.9	10.553	ug/L	10.553	ppb	16:57:03
1	Cr 267.716†	-527.8	-593.5	-0.5217	ug/L	-0.5217	ppb	16:56:43
1	Cu 324.752†	1610.7	-6099.4	-2.2592	ug/L	-2.2592	ppb	16:56:43
1	Mn 257.610†	-26703.5	-27360.1	-5.1605	ug/L	-5.1605	ppb	16:56:43
1	Mo 202.031†	-285.1	-299.5	2.6599	ug/L	2.6599	ppb	16:56:43
1	Ni 231.604†	111.2	31.7	0.9682	ug/L	0.9682	ppb	16:57:03
1	P 214.914†	559.8	365.7	-105.78	ug/L	-105.78	ppb	16:57:03
1	Pb 220.353†	152.2	211.0	2.7376	ug/L	2.7376	ppb	16:57:03
1	S 181.975 Axial†	50.1	9.5	11.824	ug/L	11.824	ppb	16:57:03
1	Sb 206.836†	25.2	-7.4	-7.6834	ug/L	-7.6834	ppb	16:57:03
1	Se 196.026†	-1403.0	-1395.9	28.809	ug/L	28.809	ppb	16:57:03
1	Si 251.611†	-216.0	-769.0	-27.090	ug/L	-27.090	ppb	16:56:43
1	Sn 189.927†	-16.6	-29.8	-28.808	ug/L	-28.808	ppb	16:57:03
1	Ti 334.940†	-1391.3	-68.4	-0.1901	ug/L	-0.1901	ppb	16:56:43
1	Tl 190.801†	-34.4	1.0	0.0952	ug/L	0.0952	ppb	16:57:03
1	U 409.014†	-232.8	2133.8	27.099	ug/L	27.099	ppb	16:56:43
1	V 292.402†	5126.2	6829.0	-3.0028	ug/L	-3.0028	ppb	16:56:43
1	Zn 213.857†	3654.3	2887.9	-26.275	ug/L	-26.275	ppb	16:57:03
1	SiO2†	-173.9	-735.7	-55.557	ug/L	-55.557	ppb	16:58:00
2	Sc Radial	4665.0	4665.0	98.3	%			16:55:50
2	Y RADIAL	4918.6	4918.6	97.59	%			16:55:50
2	Al 396.153Radial†	-103.8	-23.1	-19.867	ug/L	-19.867	ppb	16:56:10
2	Ca 317.933Radial†	14.6	-3.4	-6.0681	ug/L	-6.0681	ppb	16:56:10
2	Fe 238.204 Radial†	36177.9	36813.8	382080	ug/L	382080	ppb	16:55:50
2	K 766.490 Radial†	2299.3	33.4	6.3539	ug/L	6.3539	ppb	16:55:50
2	Mg 279.077 IEC†	11.7	9.8	-11.889	ug/L	-11.889	ppb	16:56:10
2	Na 589.592 Radial†	-707.7	16.7	5.0950	ug/L	5.0950	ppb	16:55:50
2	Sr 421.552†	87.9	70.5	0.5026	ug/L	0.5026	ppb	16:55:50
2	Sc 361.383	777133.5	777133.5	98.270	%			16:57:09
2	Y 371.029	691875.0	691875.0	97.862	%			16:57:09
2	Ag 328.068†	-21626.8	-22183.9	6.1628	ug/L	6.1628	ppb	16:57:09
2	As 188.979†	-161.0	-135.2	30.794	ug/L	30.794	ppb	16:57:29
2	B 249.677†	1590.4	1842.6	-16.273	ug/L	-16.273	ppb	16:57:09
2	Ba 233.527†	-1520.2	-1542.9	-6.1527	ug/L	-6.1527	ppb	16:57:09
2	Be 313.107†	-9161.1	10.2	0.0034	ug/L	0.0034	ppb	16:57:09
2	Cd 226.502†	2598.2	2826.6	-0.5945	ug/L	-0.5945	ppb	16:57:09
2	Co 228.616†	499.8	572.9	11.460	ug/L	11.460	ppb	16:57:29
2	Cr 267.716†	-466.4	-535.9	0.2259	ug/L	0.2259	ppb	16:57:09
2	Cu 324.752†	1610.1	-6085.3	-2.2613	ug/L	-2.2613	ppb	16:57:09
2	Mn 257.610†	-26433.5	-27329.2	-5.2154	ug/L	-5.2154	ppb	16:57:09
2	Mo 202.031†	-283.0	-300.0	2.5397	ug/L	2.5397	ppb	16:57:09
2	Ni 231.604†	98.5	19.7	0.5989	ug/L	0.5989	ppb	16:57:29

2	P 214.914†	591.3	402.9	-84.785 ug/L	-84.785 ppb	16:57:29
2	Pb 220.353†	176.6	237.3	6.9863 ug/L	6.9863 ppb	16:57:29
2	S 181.975 Axial†	47.1	6.9	8.6066 ug/L	8.6066 ppb	16:57:29
2	Sb 206.836†	26.4	-6.0	-7.1318 ug/L	-7.1318 ppb	16:57:29
2	Se 196.026†	-1380.5	-1385.8	32.564 ug/L	32.564 ppb	16:57:29
2	Si 251.611†	-192.3	-746.8	-26.300 ug/L	-26.300 ppb	16:57:09
2	Sn 189.927†	-15.5	-28.8	-28.517 ug/L	-28.517 ppb	16:57:29
2	Ti 334.940†	-1431.0	-121.4	-0.3020 ug/L	-0.3020 ppb	16:57:09
2	Tl 190.801†	-36.1	-1.0	-0.8360 ug/L	-0.8360 ppb	16:57:29
2	U 409.014†	-203.1	2161.9	28.144 ug/L	28.144 ppb	16:57:09
2	V 292.402†	4965.9	6712.6	-3.7558 ug/L	-3.7558 ppb	16:57:09
2	Zn 213.857†	3653.6	2920.7	-25.769 ug/L	-25.769 ppb	16:57:29
2	SiO2†	-207.0	-771.0	-58.258 ug/L	-58.258 ppb	16:58:05
3	Sc Radial	4674.1	4674.1	98.4 %		16:56:15
3	Y RADIAL	4941.5	4941.5	98.04 %		16:56:15
3	Al 396.153Radial†	-98.9	-18.0	-15.241 ug/L	-15.241 ppb	16:56:35
3	Ca 317.933Radial†	13.0	-5.1	-9.0881 ug/L	-9.0881 ppb	16:56:35
3	Fe 238.204 Radial†	36474.2	37043.2	384460 ug/L	384460 ppb	16:56:15
3	K 766.490 Radial†	2349.0	79.4	15.044 ug/L	15.044 ppb	16:56:15
3	Mg 279.077 IEC†	7.6	5.6	-183.13 ug/L	-183.13 ppb	16:56:35
3	Na 589.592 Radial†	-697.8	28.2	8.5798 ug/L	8.5798 ppb	16:56:15
3	Sr 421.552†	53.6	35.5	0.2529 ug/L	0.2529 ppb	16:56:15
3	Sc 361.383	779911.6	779911.6	98.622 %		16:57:35
3	Y 371.029	694330.4	694330.4	98.209 %		16:57:35
3	Ag 328.068†	-21552.6	-22030.3	7.6695 ug/L	7.6695 ppb	16:57:35
3	As 188.979†	-160.7	-134.4	31.713 ug/L	31.713 ppb	16:57:55
3	B 249.677†	1576.0	1822.2	-17.166 ug/L	-17.166 ppb	16:57:35
3	Ba 233.527†	-1531.3	-1548.7	-6.1461 ug/L	-6.1461 ppb	16:57:35
3	Be 313.107†	-9201.9	2.0	0.0002 ug/L	0.0002 ppb	16:57:35
3	Cd 226.502†	2628.5	2847.9	-0.5473 ug/L	-0.5473 ppb	16:57:35
3	Co 228.616†	492.9	564.2	11.166 ug/L	11.166 ppb	16:57:55
3	Cr 267.716†	-452.6	-520.1	0.4827 ug/L	0.4827 ppb	16:57:35
3	Cu 324.752†	1452.3	-6251.1	-2.7468 ug/L	-2.7468 ppb	16:57:35
3	Mn 257.610†	-26281.8	-27079.6	-4.5811 ug/L	-4.5811 ppb	16:57:35
3	Mo 202.031†	-274.2	-290.0	3.6289 ug/L	3.6289 ppb	16:57:35
3	Ni 231.604†	112.3	33.4	1.0201 ug/L	1.0201 ppb	16:57:55
3	P 214.914†	574.5	383.7	-96.972 ug/L	-96.972 ppb	16:57:55
3	Pb 220.353†	147.7	207.3	2.0424 ug/L	2.0424 ppb	16:57:55
3	S 181.975 Axial†	55.4	15.1	18.744 ug/L	18.744 ppb	16:57:55
3	Sb 206.836†	15.3	-17.4	-11.531 ug/L	-11.531 ppb	16:57:55
3	Se 196.026†	-1367.1	-1367.2	48.911 ug/L	48.911 ppb	16:57:55
3	Si 251.611†	-221.0	-775.3	-27.327 ug/L	-27.327 ppb	16:57:35
3	Sn 189.927†	-1.9	-15.0	-25.499 ug/L	-25.499 ppb	16:57:55
3	Ti 334.940†	-1452.2	-137.7	-0.3209 ug/L	-0.3209 ppb	16:57:35
3	Tl 190.801†	-45.0	-9.9	-4.8850 ug/L	-4.8850 ppb	16:57:55
3	U 409.014†	-207.3	2158.5	27.757 ug/L	27.757 ppb	16:57:35
3	V 292.402†	5076.7	6807.0	-3.3609 ug/L	-3.3609 ppb	16:57:35
3	Zn 213.857†	3625.5	2878.9	-26.576 ug/L	-26.576 ppb	16:57:55
3	SiO2†	-270.5	-834.6	-63.154 ug/L	-63.154 ppb	16:58:10

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	780405.8	98.684	%	0.4483				0.45%
Sc Radial	4676.4	98.5	%	0.27				0.27%
Y 371.029	695036.6	98.309	%	0.5046				0.51%
Y RADIAL	4945.8	98.13	%	0.585				0.60%
Ag 328.068†	-22166.9	6.5989	ug/L	0.93251	6.5989	ppb	0.93251	14.13%
Al 396.153Radial†	-23.5	-20.222	ug/L	5.1668	-20.222	ppb	5.1668	25.55%
As 188.979†	-135.8	30.795	ug/L	0.9177	30.795	ppb	0.9177	2.98%
B 249.677†	1843.5	-16.434	ug/L	0.6661	-16.434	ppb	0.6661	4.05%
Ba 233.527†	-1526.9	-5.9319	ug/L	0.37680	-5.9319	ppb	0.37680	6.35%
Be 313.107†	44.4	0.0169	ug/L	0.02618	0.0169	ppb	0.02618	155.10%
Ca 317.933Radial†	-4.4	-7.8671	ug/L	1.59081	-7.8671	ppb	1.59081	20.22%
Cd 226.502†	2836.4	-0.5764	ug/L	0.02544	-0.5764	ppb	0.02544	4.41%
Co 228.616†	560.0	11.059	ug/L	0.4628	11.059	ppb	0.4628	4.18%
Cr 267.716†	-549.8	0.0623	ug/L	0.52179	0.0623	ppb	0.52179	837.58%
Cu 324.752†	-6145.3	-2.4224	ug/L	0.28092	-2.4224	ppb	0.28092	11.60%
Fe 238.204 Radial†	36922.8	383210	ug/L	1195.1	383210	ppb	1195.1	0.31%
K 766.490 Radial†	36.4	6.9226	ug/L	7.85244	6.9226	ppb	7.85244	113.43%

Mg 279.077 IEC†	7.8	-95.179	ug/L	85.7152	-95.179	ppb	85.7152	90.06%
Mn 257.610†	-27256.3	-4.9857	ug/L	0.35145	-4.9857	ppb	0.35145	7.05%
Mo 202.031†	-296.5	2.9428	ug/L	0.59720	2.9428	ppb	0.59720	20.29%
Na 589.592 Radial†	22.9	6.9741	ug/L	1.75841	6.9741	ppb	1.75841	25.21%
Ni 231.604†	28.3	0.8624	ug/L	0.22969	0.8624	ppb	0.22969	26.63%
P 214.914†	384.1	-95.845	ug/L	10.5412	-95.845	ppb	10.5412	11.00%
Pb 220.353†	218.5	3.9221	ug/L	2.67634	3.9221	ppb	2.67634	68.24%
S 181.975 Axial†	10.5	13.058	ug/L	5.1804	13.058	ppb	5.1804	39.67%
Sb 206.836†	-10.3	-8.7822	ug/L	2.39679	-8.7822	ppb	2.39679	27.29%
Se 196.026†	-1383.0	36.761	ug/L	10.6883	36.761	ppb	10.6883	29.07%
Si 251.611†	-763.7	-26.906	ug/L	0.5379	-26.906	ppb	0.5379	2.00%
Sn 189.927†	-24.5	-27.608	ug/L	1.8326	-27.608	ppb	1.8326	6.64%
Sr 421.552†	56.5	0.4028	ug/L	0.13217	0.4028	ppb	0.13217	32.81%
Ti 334.940†	-109.2	-0.2710	ug/L	0.07066	-0.2710	ppb	0.07066	26.08%
Tl 190.801†	-3.3	-1.8753	ug/L	2.64779	-1.8753	ppb	2.64779	141.19%
U 409.014†	2151.4	27.667	ug/L	0.5286	27.667	ppb	0.5286	1.91%
V 292.402†	6782.9	-3.3732	ug/L	0.37661	-3.3732	ppb	0.37661	11.16%
Zn 213.857†	2895.8	-26.206	ug/L	0.4078	-26.206	ppb	0.4078	1.56%
SiO2†	-780.4	-58.990	ug/L	3.8511	-58.990	ppb	3.8511	6.53%

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/4/2010 17:00:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4878.8	4878.8	103	%			17:02:14
1	Y RADIAL	5109.7	5109.7	101.4	%			17:02:14
1	Al 396.153Radial†	5354.4	5293.2	4823.2	ug/L	4823.2	ppb	17:02:14
1	Ca 317.933Radial†	2814.8	2721.0	4869.4	ug/L	4869.4	ppb	17:02:34
1	Fe 238.204 Radial†	502.5	481.8	5015.1	ug/L	5015.1	ppb	17:02:34
1	K 766.490 Radial†	29813.5	26707.0	5036.8	ug/L	5036.8	ppb	17:02:14
1	Mg 279.077 IEC†	132.8	127.1	5007.6	ug/L	5007.6	ppb	17:02:34
1	Na 589.592 Radial†	32860.5	32716.1	9955.1	ug/L	9955.1	ppb	17:02:14
1	Sr 421.552†	72629.0	70661.8	503.49	ug/L	503.49	ppb	17:02:14
1	Sc 361.383	805084.9	805084.9	101.80	%			17:03:31
1	Y 371.029	712449.3	712449.3	100.77	%			17:03:31
1	Ag 328.068†	99041.0	97108.7	490.83	ug/L	490.83	ppb	17:03:36
1	As 188.979†	1122.9	1131.6	496.10	ug/L	496.10	ppb	17:03:57
1	B 249.677†	19877.3	19749.1	488.88	ug/L	488.88	ppb	17:03:36
1	Ba 233.527†	42995.6	42237.4	491.04	ug/L	491.04	ppb	17:03:36
1	Be 313.107†	1254680.7	1241769.7	486.93	ug/L	486.93	ppb	17:03:31
1	Cd 226.502†	36350.0	35888.2	493.25	ug/L	493.25	ppb	17:03:36
1	Co 228.616†	17100.2	16861.4	501.72	ug/L	501.72	ppb	17:03:36
1	Cr 267.716†	37567.9	36840.7	491.84	ug/L	491.84	ppb	17:03:36
1	Cu 324.752†	141287.0	131058.5	483.39	ug/L	483.39	ppb	17:03:36
1	Mn 257.610†	317722.4	311659.3	489.93	ug/L	489.93	ppb	17:03:36
1	Mo 202.031†	5495.6	5386.2	487.41	ug/L	487.41	ppb	17:03:57
1	Ni 231.604†	16331.6	15961.5	492.48	ug/L	492.48	ppb	17:03:36
1	P 214.914†	4768.9	4485.5	2339.0	ug/L	2339.0	ppb	17:03:57
1	Pb 220.353†	3095.3	3098.0	493.54	ug/L	493.54	ppb	17:03:57
1	S 181.975 Axial†	844.1	788.1	978.10	ug/L	978.10	ppb	17:03:57
1	Sb 206.836†	1259.1	1203.9	489.51	ug/L	489.51	ppb	17:03:57
1	Se 196.026†	815.7	820.2	500.12	ug/L	500.12	ppb	17:03:57
1	Si 251.611†	69873.9	68084.0	2422.1	ug/L	2422.1	ppb	17:03:36
1	Sn 189.927†	2182.9	2131.1	487.62	ug/L	487.62	ppb	17:03:57
1	Ti 334.940†	248374.9	245306.3	485.83	ug/L	485.83	ppb	17:03:36
1	Tl 190.801†	1063.5	1080.3	493.00	ug/L	493.00	ppb	17:03:57
1	U 409.014†	12509.0	14655.9	484.29	ug/L	484.29	ppb	17:03:36
1	V 292.402†	62342.3	62896.4	494.90	ug/L	494.90	ppb	17:03:36
1	Zn 213.857†	47247.9	45613.0	485.58	ug/L	485.58	ppb	17:03:36
1	SiO2†	70676.2	68862.9	5256.3	ug/L	5256.3	ppb	17:05:04
2	Sc Radial	4751.5	4751.5	100	%			17:02:39
2	Y RADIAL	5026.2	5026.2	99.72	%			17:02:39
2	Al 396.153Radial†	5197.6	5276.2	4807.7	ug/L	4807.7	ppb	17:02:39
2	Ca 317.933Radial†	2782.7	2762.3	4943.3	ug/L	4943.3	ppb	17:02:59
2	Fe 238.204 Radial†	496.4	488.8	5087.9	ug/L	5087.9	ppb	17:02:59
2	K 766.490 Radial†	29228.9	26900.3	5073.3	ug/L	5073.3	ppb	17:02:39
2	Mg 279.077 IEC†	135.8	133.6	5263.4	ug/L	5263.4	ppb	17:02:59
2	Na 589.592 Radial†	32100.2	32813.2	9984.7	ug/L	9984.7	ppb	17:02:39
2	Sr 421.552†	70734.0	70662.0	503.49	ug/L	503.49	ppb	17:02:39
2	Sc 361.383	806603.0	806603.0	102.00	%			17:04:02
2	Y 371.029	712985.5	712985.5	100.85	%			17:04:02
2	Ag 328.068†	98105.2	96008.2	485.31	ug/L	485.31	ppb	17:04:07
2	As 188.979†	1117.0	1123.8	492.67	ug/L	492.67	ppb	17:04:27
2	B 249.677†	19677.3	19516.3	483.09	ug/L	483.09	ppb	17:04:07
2	Ba 233.527†	42801.8	41967.9	487.90	ug/L	487.90	ppb	17:04:07
2	Be 313.107†	1263239.3	1247841.3	489.29	ug/L	489.29	ppb	17:04:02
2	Cd 226.502†	36268.2	35740.8	491.21	ug/L	491.21	ppb	17:04:07
2	Co 228.616†	17045.6	16776.2	499.19	ug/L	499.19	ppb	17:04:07
2	Cr 267.716†	37363.2	36570.5	488.23	ug/L	488.23	ppb	17:04:07
2	Cu 324.752†	139742.8	129283.3	476.85	ug/L	476.85	ppb	17:04:07
2	Mn 257.610†	315857.8	309243.8	486.13	ug/L	486.13	ppb	17:04:07
2	Mo 202.031†	5489.6	5370.1	485.96	ug/L	485.96	ppb	17:04:27
2	Ni 231.604†	16305.9	15906.2	490.77	ug/L	490.77	ppb	17:04:07

2	P 214.914†	4785.7	4493.2	2344.4 ug/L	2344.4 ppb	17:04:27
2	Pb 220.353†	3082.5	3079.7	490.64 ug/L	490.64 ppb	17:04:27
2	S 181.975 Axial†	837.2	779.8	967.78 ug/L	967.78 ppb	17:04:27
2	Sb 206.836†	1278.9	1221.0	496.17 ug/L	496.17 ppb	17:04:27
2	Se 196.026†	805.4	808.6	493.39 ug/L	493.39 ppb	17:04:27
2	Si 251.611†	69269.2	67362.0	2396.4 ug/L	2396.4 ppb	17:04:07
2	Sn 189.927†	2188.7	2132.8	488.01 ug/L	488.01 ppb	17:04:27
2	Ti 334.940†	246033.0	242551.2	480.37 ug/L	480.37 ppb	17:04:07
2	Tl 190.801†	1061.8	1076.7	491.33 ug/L	491.33 ppb	17:04:27
2	U 409.014†	12337.3	14464.4	477.94 ug/L	477.94 ppb	17:04:07
2	V 292.402†	61867.0	62315.1	490.36 ug/L	490.36 ppb	17:04:07
2	Zn 213.857†	46945.7	45229.4	481.46 ug/L	481.46 ppb	17:04:07
2	SiO2†	69750.1	67824.3	5176.9 ug/L	5176.9 ppb	17:05:09
3	Sc Radial	4820.6	4820.6	102 %		17:03:04
3	Y RADIAL	5055.0	5055.0	100.3 %		17:03:04
3	Al 396.153Radial†	5241.0	5244.5	4778.4 ug/L	4778.4 ppb	17:03:04
3	Ca 317.933Radial†	2769.2	2709.3	4848.3 ug/L	4848.3 ppb	17:03:24
3	Fe 238.204 Radial†	492.0	477.3	4968.8 ug/L	4968.8 ppb	17:03:24
3	K 766.490 Radial†	29323.6	26575.0	5012.0 ug/L	5012.0 ppb	17:03:04
3	Mg 279.077 IEC†	130.7	126.6	4990.1 ug/L	4990.1 ppb	17:03:24
3	Na 589.592 Radial†	32138.6	32391.3	9856.3 ug/L	9856.3 ppb	17:03:04
3	Sr 421.552†	71179.1	70087.4	499.40 ug/L	499.40 ppb	17:03:04
3	Sc 361.383	798141.5	798141.5	100.93 %		17:04:33
3	Y 371.029	705830.0	705830.0	99.836 %		17:04:33
3	Ag 328.068†	98723.2	97640.2	493.50 ug/L	493.50 ppb	17:04:38
3	As 188.979†	1110.9	1129.3	495.12 ug/L	495.12 ppb	17:04:58
3	B 249.677†	19823.6	19865.8	491.78 ug/L	491.78 ppb	17:04:38
3	Ba 233.527†	43035.4	42644.2	495.76 ug/L	495.76 ppb	17:04:38
3	Be 313.107†	1250939.3	1248784.3	489.68 ug/L	489.68 ppb	17:04:33
3	Cd 226.502†	36400.2	36248.6	498.21 ug/L	498.21 ppb	17:04:38
3	Co 228.616†	17135.3	17042.3	507.11 ug/L	507.11 ppb	17:04:38
3	Cr 267.716†	37627.8	37221.1	496.92 ug/L	496.92 ppb	17:04:38
3	Cu 324.752†	140905.0	131887.3	486.45 ug/L	486.45 ppb	17:04:38
3	Mn 257.610†	317738.2	314389.9	494.21 ug/L	494.21 ppb	17:04:38
3	Mo 202.031†	5487.8	5425.4	490.95 ug/L	490.95 ppb	17:04:58
3	Ni 231.604†	16346.1	16115.5	497.23 ug/L	497.23 ppb	17:04:38
3	P 214.914†	4750.6	4508.1	2350.7 ug/L	2350.7 ppb	17:04:58
3	Pb 220.353†	3072.8	3102.1	494.19 ug/L	494.19 ppb	17:04:58
3	S 181.975 Axial†	829.4	780.7	968.93 ug/L	968.93 ppb	17:04:58
3	Sb 206.836†	1270.7	1226.2	498.36 ug/L	498.36 ppb	17:04:58
3	Se 196.026†	804.3	815.9	497.45 ug/L	497.45 ppb	17:04:58
3	Si 251.611†	69698.5	68507.3	2437.2 ug/L	2437.2 ppb	17:04:38
3	Sn 189.927†	2174.4	2141.3	489.95 ug/L	489.95 ppb	17:04:58
3	Ti 334.940†	247823.8	246882.7	488.95 ug/L	488.95 ppb	17:04:38
3	Tl 190.801†	1042.4	1068.5	487.67 ug/L	487.67 ppb	17:04:58
3	U 409.014†	12336.1	14591.4	482.15 ug/L	482.15 ppb	17:04:38
3	V 292.402†	62384.6	63471.0	499.41 ug/L	499.41 ppb	17:04:38
3	Zn 213.857†	47323.6	46091.8	490.69 ug/L	490.69 ppb	17:04:38
3	SiO2†	69103.6	67908.7	5183.2 ug/L	5183.2 ppb	17:05:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	803276.5	101.58	%	0.570				0.56%
Sc Radial	4816.9	101	%	1.3				1.32%
Y 371.029	710421.6	100.49	%	0.564				0.56%
Y RADIAL	5063.6	100.5	%	0.84				0.84%
Ag 328.068†	96919.0	489.88	ug/L	4.179	489.88	ppb	4.179	0.85%
QC value within limits for Ag 328.068 Recovery = 97.98%								
Al 396.153Radial†	5271.3	4803.1	ug/L	22.76	4803.1	ppb	22.76	0.47%
QC value within limits for Al 396.153Radial Recovery = 96.06%								
As 188.979†	1128.2	494.63	ug/L	1.767	494.63	ppb	1.767	0.36%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	19710.4	487.92	ug/L	4.424	487.92	ppb	4.424	0.91%
QC value within limits for B 249.677 Recovery = 97.58%								
Ba 233.527†	42283.2	491.57	ug/L	3.956	491.57	ppb	3.956	0.80%
QC value within limits for Ba 233.527 Recovery = 98.31%								
Be 313.107†	1246131.8	488.63	ug/L	1.489	488.63	ppb	1.489	0.30%
QC value within limits for Be 313.107 Recovery = 97.73%								
Ca 317.933Radial†	2730.9	4887.0	ug/L	49.86	4887.0	ppb	49.86	1.02%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.74%
Cd 226.502†            35959.2      494.22 ug/L         3.600      494.22 ppb          3.600   0.73%
   QC value within limits for Cd 226.502  Recovery = 98.84%
Co 228.616†            16893.3      502.67 ug/L         4.041      502.67 ppb          4.041   0.80%
   QC value within limits for Co 228.616  Recovery = 100.53%
Cr 267.716†            36877.4      492.33 ug/L         4.363      492.33 ppb          4.363   0.89%
   QC value within limits for Cr 267.716  Recovery = 98.47%
Cu 324.752†           130743.1      482.23 ug/L         4.902      482.23 ppb          4.902   1.02%
   QC value within limits for Cu 324.752  Recovery = 96.45%
Fe 238.204 Radial†       482.6      5023.9 ug/L        60.02      5023.9 ppb          60.02   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.48%
K 766.490 Radial†      26727.4      5040.7 ug/L        30.86      5040.7 ppb          30.86   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 100.81%
Mg 279.077 IEC†          129.1      5087.0 ug/L       153.01      5087.0 ppb         153.01   3.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.74%
Mn 257.610†           311764.3      490.09 ug/L         4.045      490.09 ppb          4.045   0.83%
   QC value within limits for Mn 257.610  Recovery = 98.02%
Mo 202.031†             5393.9      488.11 ug/L         2.567      488.11 ppb          2.567   0.53%
   QC value within limits for Mo 202.031  Recovery = 97.62%
Na 589.592 Radial†     32640.2      9932.0 ug/L        67.23      9932.0 ppb          67.23   0.68%
   QC value within limits for Na 589.592 Radial  Recovery = 99.32%
Ni 231.604†            15994.4      493.49 ug/L         3.347      493.49 ppb          3.347   0.68%
   QC value within limits for Ni 231.604  Recovery = 98.70%
P 214.914†              4495.6      2344.7 ug/L         5.87      2344.7 ppb           5.87   0.25%
   QC value within limits for P 214.914  Recovery = 93.79%
Pb 220.353†             3093.2      492.79 ug/L         1.894      492.79 ppb          1.894   0.38%
   QC value within limits for Pb 220.353  Recovery = 98.56%
S 181.975 Axial†         782.9      971.60 ug/L         5.657      971.60 ppb          5.657   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 97.16%
Sb 206.836†             1217.0      494.68 ug/L         4.609      494.68 ppb          4.609   0.93%
   QC value within limits for Sb 206.836  Recovery = 98.94%
Se 196.026†              814.9      496.99 ug/L         3.390      496.99 ppb          3.390   0.68%
   QC value within limits for Se 196.026  Recovery = 99.40%
Si 251.611†            67984.4      2418.6 ug/L        20.62      2418.6 ppb          20.62   0.85%
   QC value within limits for Si 251.611  Recovery = 96.74%
Sn 189.927†             2135.1      488.53 ug/L         1.251      488.53 ppb          1.251   0.26%
   QC value within limits for Sn 189.927  Recovery = 97.71%
Sr 421.552†            70470.4      502.12 ug/L         2.363      502.12 ppb          2.363   0.47%
   QC value within limits for Sr 421.552  Recovery = 100.42%
Ti 334.940†           244913.4      485.05 ug/L         4.346      485.05 ppb          4.346   0.90%
   QC value within limits for Ti 334.940  Recovery = 97.01%
Tl 190.801†             1075.2      490.67 ug/L         2.726      490.67 ppb          2.726   0.56%
   QC value within limits for Tl 190.801  Recovery = 98.13%
U 409.014†             14570.6      481.46 ug/L         3.229      481.46 ppb          3.229   0.67%
   QC value within limits for U 409.014  Recovery = 96.29%
V 292.402†             62894.2      494.89 ug/L         4.527      494.89 ppb          4.527   0.91%
   QC value within limits for V 292.402  Recovery = 98.98%
Zn 213.857†            45644.7      485.91 ug/L         4.624      485.91 ppb          4.624   0.95%
   QC value within limits for Zn 213.857  Recovery = 97.18%
SiO2†                  68198.6      5205.5 ug/L        44.15      5205.5 ppb          44.15   0.85%
   QC value within limits for SiO2  Recovery = 97.34%
All analyte(s) passed QC.
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Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/4/2010 17:07:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4796.4	4796.4	101	%			17:09:16
1	Y RADIAL	5076.9	5076.9	100.7	%			17:09:16
1	Al 396.153Radial†	-90.7	-7.3	-6.6782	ug/L	-6.6782	ppb	17:09:36
1	Ca 317.933Radial†	23.3	4.8	8.5893	ug/L	8.5893	ppb	17:09:36
1	Fe 238.204 Radial†	9.8	2.4	24.933	ug/L	24.933	ppb	17:09:36
1	K 766.490 Radial†	2521.7	189.4	35.771	ug/L	35.771	ppb	17:09:16
1	Mg 279.077 IEC†	0.9	-1.3	-50.045	ug/L	-50.045	ppb	17:09:36
1	Na 589.592 Radial†	-760.1	-15.3	-4.6588	ug/L	-4.6588	ppb	17:09:16
1	Sr 421.552†	4.5	-14.5	-0.1034	ug/L	-0.1034	ppb	17:09:16
1	Sc 361.383	786234.8	786234.8	99.421	%			17:10:33
1	Y 371.029	704344.5	704344.5	99.626	%			17:10:33
1	Ag 328.068†	159.7	-15.8	-0.0677	ug/L	-0.0677	ppb	17:10:33
1	As 188.979†	-14.3	14.3	6.2026	ug/L	6.2026	ppb	17:10:53
1	B 249.677†	139.3	364.3	9.0556	ug/L	9.0556	ppb	17:10:53
1	Ba 233.527†	7.9	12.0	0.1398	ug/L	0.1398	ppb	17:10:53
1	Be 313.107†	-9317.1	-38.8	-0.0156	ug/L	-0.0156	ppb	17:10:33
1	Cd 226.502†	-182.8	-1.2	-0.0204	ug/L	-0.0204	ppb	17:10:53
1	Co 228.616†	-51.5	12.5	0.3735	ug/L	0.3735	ppb	17:10:53
1	Cr 267.716†	68.2	7.4	0.1011	ug/L	0.1011	ppb	17:10:53
1	Cu 324.752†	7576.7	-103.0	-0.3763	ug/L	-0.3763	ppb	17:10:33
1	Mn 257.610†	431.7	3.8	0.0104	ug/L	0.0104	ppb	17:10:53
1	Mo 202.031†	14.3	2.4	0.2156	ug/L	0.2156	ppb	17:10:53
1	Ni 231.604†	83.5	3.5	0.1080	ug/L	0.1080	ppb	17:10:53
1	P 214.914†	209.9	12.3	6.7461	ug/L	6.7461	ppb	17:10:53
1	Pb 220.353†	-53.0	4.2	0.6664	ug/L	0.6664	ppb	17:10:53
1	S 181.975 Axial†	39.0	-1.8	-2.2918	ug/L	-2.2918	ppb	17:10:53
1	Sb 206.836†	31.7	-1.0	-0.3308	ug/L	-0.3308	ppb	17:10:53
1	Se 196.026†	-13.5	5.4	3.2495	ug/L	3.2495	ppb	17:10:53
1	Si 251.611†	582.3	34.5	1.2274	ug/L	1.2274	ppb	17:10:53
1	Sn 189.927†	24.0	11.0	2.5231	ug/L	2.5231	ppb	17:10:53
1	Ti 334.940†	-1423.1	-96.7	-0.1845	ug/L	-0.1845	ppb	17:10:33
1	Tl 190.801†	-26.2	9.4	4.2573	ug/L	4.2573	ppb	17:10:53
1	U 409.014†	-2474.2	-120.0	-3.9827	ug/L	-3.9827	ppb	17:10:33
1	V 292.402†	-1624.3	25.6	0.1898	ug/L	0.1898	ppb	17:10:33
1	Zn 213.857†	732.1	-61.0	-0.6589	ug/L	-0.6589	ppb	17:10:53
1	SiO2†	562.2	5.2	0.3899	ug/L	0.3899	ppb	17:11:49
2	Sc Radial	4691.6	4691.6	98.8	%			17:09:41
2	Y RADIAL	4963.5	4963.5	98.48	%			17:09:41
2	Al 396.153Radial†	-80.9	0.6	0.5261	ug/L	0.5261	ppb	17:10:02
2	Ca 317.933Radial†	17.8	-0.3	-0.5182	ug/L	-0.5182	ppb	17:10:02
2	Fe 238.204 Radial†	7.1	-0.1	-1.2262	ug/L	-1.2262	ppb	17:10:02
2	K 766.490 Radial†	2451.4	174.1	32.870	ug/L	32.870	ppb	17:09:41
2	Mg 279.077 IEC†	0.7	-1.4	-56.154	ug/L	-56.154	ppb	17:10:02
2	Na 589.592 Radial†	-733.6	-5.4	-1.6328	ug/L	-1.6328	ppb	17:09:41
2	Sr 421.552†	51.7	33.4	0.2380	ug/L	0.2380	ppb	17:09:41
2	Sc 361.383	796740.0	796740.0	100.75	%			17:10:59
2	Y 371.029	714042.7	714042.7	101.00	%			17:10:59
2	Ag 328.068†	227.5	49.4	0.2515	ug/L	0.2515	ppb	17:10:59
2	As 188.979†	-23.6	5.2	2.2453	ug/L	2.2453	ppb	17:11:19
2	B 249.677†	94.0	317.5	7.8957	ug/L	7.8957	ppb	17:11:19
2	Ba 233.527†	-12.2	-8.1	-0.0941	ug/L	-0.0941	ppb	17:11:19
2	Be 313.107†	-9386.7	15.6	0.0063	ug/L	0.0063	ppb	17:10:59
2	Cd 226.502†	-179.6	4.4	0.0592	ug/L	0.0592	ppb	17:11:19
2	Co 228.616†	-59.2	5.6	0.1664	ug/L	0.1664	ppb	17:11:19
2	Cr 267.716†	66.7	5.0	0.0687	ug/L	0.0687	ppb	17:11:19
2	Cu 324.752†	7751.3	-30.1	-0.1081	ug/L	-0.1081	ppb	17:10:59
2	Mn 257.610†	439.5	5.7	0.0112	ug/L	0.0112	ppb	17:11:19
2	Mo 202.031†	12.4	0.4	0.0340	ug/L	0.0340	ppb	17:11:19
2	Ni 231.604†	85.8	4.7	0.1445	ug/L	0.1445	ppb	17:11:19

2	P 214.914†	203.8	3.4	1.8676	ug/L	1.8676	ppb	17:11:19
2	Pb 220.353†	-41.1	16.7	2.6532	ug/L	2.6532	ppb	17:11:19
2	S 181.975 Axial†	43.1	1.8	2.2160	ug/L	2.2160	ppb	17:11:19
2	Sb 206.836†	32.8	-0.3	-0.1154	ug/L	-0.1154	ppb	17:11:19
2	Se 196.026†	-26.9	-7.7	-4.5852	ug/L	-4.5852	ppb	17:11:19
2	Si 251.611†	576.0	20.5	0.7311	ug/L	0.7311	ppb	17:11:19
2	Sn 189.927†	13.9	0.8	0.1750	ug/L	0.1750	ppb	17:11:19
2	Ti 334.940†	-1305.1	39.4	0.0850	ug/L	0.0850	ppb	17:10:59
2	Tl 190.801†	-34.8	1.2	0.5438	ug/L	0.5438	ppb	17:11:19
2	U 409.014†	-2557.1	-169.4	-5.6176	ug/L	-5.6176	ppb	17:10:59
2	V 292.402†	-1696.0	-24.1	-0.1983	ug/L	-0.1983	ppb	17:10:59
2	Zn 213.857†	722.5	-80.2	-0.8620	ug/L	-0.8620	ppb	17:11:19
2	SiO2†	595.3	30.6	2.3391	ug/L	2.3391	ppb	17:11:54
3	Sc Radial	4738.8	4738.8	99.8	%			17:10:07
3	Y RADIAL	4993.9	4993.9	99.08	%			17:10:07
3	Al 396.153Radial†	-98.6	-16.3	-14.958	ug/L	-14.958	ppb	17:10:27
3	Ca 317.933Radial†	19.9	1.7	3.0657	ug/L	3.0657	ppb	17:10:27
3	Fe 238.204 Radial†	9.0	1.7	17.805	ug/L	17.805	ppb	17:10:27
3	K 766.490 Radial†	2409.4	107.3	20.262	ug/L	20.262	ppb	17:10:07
3	Mg 279.077 IEC†	0.9	-1.2	-48.729	ug/L	-48.729	ppb	17:10:27
3	Na 589.592 Radial†	-763.9	-28.3	-8.6091	ug/L	-8.6091	ppb	17:10:07
3	Sr 421.552†	15.9	-3.0	-0.0214	ug/L	-0.0214	ppb	17:10:07
3	Sc 361.383	794472.1	794472.1	100.46	%			17:11:24
3	Y 371.029	710811.7	710811.7	100.54	%			17:11:24
3	Ag 328.068†	79.9	-97.0	-0.4872	ug/L	-0.4872	ppb	17:11:24
3	As 188.979†	-25.9	2.8	1.2294	ug/L	1.2294	ppb	17:11:44
3	B 249.677†	75.1	299.0	7.4319	ug/L	7.4319	ppb	17:11:44
3	Ba 233.527†	-14.0	-9.9	-0.1139	ug/L	-0.1139	ppb	17:11:44
3	Be 313.107†	-9449.2	-73.2	-0.0286	ug/L	-0.0286	ppb	17:11:24
3	Cd 226.502†	-165.2	18.2	0.2493	ug/L	0.2493	ppb	17:11:44
3	Co 228.616†	-59.1	5.5	0.1631	ug/L	0.1631	ppb	17:11:44
3	Cr 267.716†	85.9	24.3	0.3217	ug/L	0.3217	ppb	17:11:44
3	Cu 324.752†	7782.4	22.9	0.0810	ug/L	0.0810	ppb	17:11:24
3	Mn 257.610†	424.3	-8.1	-0.0090	ug/L	-0.0090	ppb	17:11:44
3	Mo 202.031†	10.4	-1.7	-0.1482	ug/L	-0.1482	ppb	17:11:44
3	Ni 231.604†	70.3	-10.5	-0.3253	ug/L	-0.3253	ppb	17:11:44
3	P 214.914†	214.1	14.3	7.7136	ug/L	7.7136	ppb	17:11:44
3	Pb 220.353†	-77.6	-19.7	-3.1366	ug/L	-3.1366	ppb	17:11:44
3	S 181.975 Axial†	47.1	5.9	7.2705	ug/L	7.2705	ppb	17:11:44
3	Sb 206.836†	42.5	9.4	3.6912	ug/L	3.6912	ppb	17:11:44
3	Se 196.026†	-25.4	-6.4	-3.7345	ug/L	-3.7345	ppb	17:11:44
3	Si 251.611†	584.9	31.1	1.1094	ug/L	1.1094	ppb	17:11:44
3	Sn 189.927†	13.4	0.2	0.0556	ug/L	0.0556	ppb	17:11:44
3	Ti 334.940†	-1338.1	2.8	0.0065	ug/L	0.0065	ppb	17:11:24
3	Tl 190.801†	-29.5	6.3	2.8516	ug/L	2.8516	ppb	17:11:44
3	U 409.014†	-2145.3	233.2	7.7298	ug/L	7.7298	ppb	17:11:24
3	V 292.402†	-1644.0	22.9	0.1868	ug/L	0.1868	ppb	17:11:24
3	Zn 213.857†	721.0	-79.6	-0.8561	ug/L	-0.8561	ppb	17:11:44
3	SiO2†	573.2	10.2	0.7874	ug/L	0.7874	ppb	17:11:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	792482.3	100.21	%	0.699				0.70%
Sc Radial	4742.3	99.9	%	1.11				1.11%
Y 371.029	709733.0	100.39	%	0.698				0.70%
Y RADIAL	5011.4	99.43	%	1.164				1.17%
Ag 328.068†	-21.1	-0.1012	ug/L	0.37049	-0.1012	ppb	0.37049	366.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.7	-7.0367	ug/L	7.74835	-7.0367	ppb	7.74835	110.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.4	3.2258	ug/L	2.62760	3.2258	ppb	2.62760	81.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	326.9	8.1278	ug/L	0.83635	8.1278	ppb	0.83635	10.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.0	-0.0227	ug/L	0.14112	-0.0227	ppb	0.14112	621.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-32.1	-0.0127	ug/L	0.01764	-0.0127	ppb	0.01764	139.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.1	3.7123	ug/L	4.58803	3.7123	ppb	4.58803	123.59%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.1      0.0961 ug/L       0.13855      0.0961 ppb        0.13855 144.25%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.9      0.2343 ug/L       0.12052      0.2343 ppb        0.12052  51.44%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.2      0.1638 ug/L       0.13768      0.1638 ppb        0.13768  84.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -36.7     -0.1345 ug/L       0.22977     -0.1345 ppb        0.22977 170.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.3      13.837 ug/L       13.5233      13.837 ppb        13.5233  97.73%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         156.9      29.634 ug/L        8.2454      29.634 ppb         8.2454  27.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.3     -51.643 ug/L        3.9621     -51.643 ppb         3.9621   7.67%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 0.5      0.0042 ug/L       0.01145      0.0042 ppb        0.01145 273.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.4      0.0338 ug/L       0.18192      0.0338 ppb        0.18192 538.03%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -16.3     -4.9669 ug/L       3.49834     -4.9669 ppb        3.49834  70.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -0.8     -0.0243 ug/L       0.26137     -0.0243 ppb        0.26137 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 10.0      5.4424 ug/L       3.13348      5.4424 ppb        3.13348  57.58%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.4      0.0610 ug/L       2.94202      0.0610 ppb        2.94202 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.9      2.3982 ug/L       4.78378      2.3982 ppb        4.78378 199.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.7      1.0817 ug/L       2.26252      1.0817 ppb        2.26252 209.17%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.9     -1.6901 ug/L       4.29887     -1.6901 ppb        4.29887 254.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                28.7      1.0226 ug/L       0.25930      1.0226 ppb        0.25930  25.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.0      0.9179 ug/L       1.39142      0.9179 ppb        1.39142 151.59%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 5.3      0.0377 ug/L       0.17822      0.0377 ppb        0.17822 472.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -18.2     -0.0310 ug/L       0.13861     -0.0310 ppb        0.13861 446.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6      2.5509 ug/L       1.87492      2.5509 ppb        1.87492  73.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -18.7     -0.6235 ug/L       7.28025     -0.6235 ppb        7.28025 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  8.1      0.0594 ug/L       0.22319      0.0594 ppb        0.22319 375.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -73.6     -0.7924 ug/L       0.11560     -0.7924 ppb        0.11560  14.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      15.3      1.1721 ug/L       1.03000      1.1721 ppb        1.03000  87.87%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/4/2010 18:00:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4751.7	4751.7	100	%			18:02:42
1	Y RADIAL	5014.3	5014.3	99.49	%			18:02:42
1	Al 396.153Radial†	5378.4	5456.6	4973.1	ug/L	4973.1	ppb	18:02:42
1	Ca 317.933Radial†	2802.5	2782.0	4978.4	ug/L	4978.4	ppb	18:03:02
1	Fe 238.204 Radial†	493.9	486.3	5061.1	ug/L	5061.1	ppb	18:03:02
1	K 766.490 Radial†	29714.1	27383.7	5164.7	ug/L	5164.7	ppb	18:02:42
1	Mg 279.077 IEC†	132.2	130.0	5123.1	ug/L	5123.1	ppb	18:03:02
1	Na 589.592 Radial†	30826.9	31539.4	9597.1	ug/L	9597.1	ppb	18:02:42
1	Sr 421.552†	70782.3	70707.0	503.81	ug/L	503.81	ppb	18:02:42
1	Sc 361.383	819744.7	819744.7	103.66	%			18:04:00
1	Y 371.029	723686.7	723686.7	102.36	%			18:04:00
1	Ag 328.068†	100182.3	96469.9	487.62	ug/L	487.62	ppb	18:04:05
1	As 188.979†	1126.1	1115.0	488.88	ug/L	488.88	ppb	18:04:25
1	B 249.677†	19844.5	19368.3	479.47	ug/L	479.47	ppb	18:04:05
1	Ba 233.527†	43580.2	42046.0	488.81	ug/L	488.81	ppb	18:04:05
1	Be 313.107†	1289580.7	1253397.9	491.47	ug/L	491.47	ppb	18:04:00
1	Cd 226.502†	36787.4	35671.6	490.26	ug/L	490.26	ppb	18:04:05
1	Co 228.616†	16673.1	16149.0	480.51	ug/L	480.51	ppb	18:04:25
1	Cr 267.716†	38026.3	36622.9	488.93	ug/L	488.93	ppb	18:04:05
1	Cu 324.752†	143534.2	130744.4	482.24	ug/L	482.24	ppb	18:04:05
1	Mn 257.610†	322143.8	310343.4	487.86	ug/L	487.86	ppb	18:04:05
1	Mo 202.031†	5513.4	5306.8	480.24	ug/L	480.24	ppb	18:04:25
1	Ni 231.604†	16540.5	15876.2	489.85	ug/L	489.85	ppb	18:04:05
1	P 214.914†	4782.0	4414.4	2300.6	ug/L	2300.6	ppb	18:04:25
1	Pb 220.353†	3080.0	3028.8	482.58	ug/L	482.58	ppb	18:04:25
1	S 181.975 Axial†	842.7	771.9	957.90	ug/L	957.90	ppb	18:04:25
1	Sb 206.836†	1287.3	1209.0	491.24	ug/L	491.24	ppb	18:04:25
1	Se 196.026†	822.2	812.1	495.41	ug/L	495.41	ppb	18:04:25
1	Si 251.611†	70998.6	67941.5	2417.1	ug/L	2417.1	ppb	18:04:05
1	Sn 189.927†	2189.4	2099.0	480.30	ug/L	480.30	ppb	18:04:25
1	Ti 334.940†	251788.1	244236.1	483.72	ug/L	483.72	ppb	18:04:05
1	Tl 190.801†	1060.7	1059.0	483.40	ug/L	483.40	ppb	18:04:25
1	U 409.014†	12708.3	14628.4	483.38	ug/L	483.38	ppb	18:04:05
1	V 292.402†	63089.5	62522.1	491.89	ug/L	491.89	ppb	18:04:05
1	Zn 213.857†	47844.3	45358.4	482.85	ug/L	482.85	ppb	18:04:05
1	SiO2†	70757.8	67700.1	5167.5	ug/L	5167.5	ppb	18:05:32
2	Sc Radial	4774.1	4774.1	101	%			18:03:07
2	Y RADIAL	5026.9	5026.9	99.74	%			18:03:07
2	Al 396.153Radial†	5315.1	5368.4	4891.5	ug/L	4891.5	ppb	18:03:07
2	Ca 317.933Radial†	2798.0	2764.5	4947.1	ug/L	4947.1	ppb	18:03:27
2	Fe 238.204 Radial†	489.8	479.8	4995.1	ug/L	4995.1	ppb	18:03:27
2	K 766.490 Radial†	29558.7	27090.0	5109.3	ug/L	5109.3	ppb	18:03:07
2	Mg 279.077 IEC†	132.4	129.5	5104.6	ug/L	5104.6	ppb	18:03:27
2	Na 589.592 Radial†	30962.5	31530.0	9594.2	ug/L	9594.2	ppb	18:03:07
2	Sr 421.552†	70556.4	70150.9	499.85	ug/L	499.85	ppb	18:03:07
2	Sc 361.383	794607.5	794607.5	100.48	%			18:04:30
2	Y 371.029	702673.5	702673.5	99.389	%			18:04:30
2	Ag 328.068†	100688.3	100030.9	505.55	ug/L	505.55	ppb	18:04:36
2	As 188.979†	1132.0	1155.3	506.49	ug/L	506.49	ppb	18:04:56
2	B 249.677†	20025.3	20153.9	498.96	ug/L	498.96	ppb	18:04:36
2	Ba 233.527†	43929.5	43723.7	508.30	ug/L	508.30	ppb	18:04:36
2	Be 313.107†	1250438.7	1253798.5	491.67	ug/L	491.67	ppb	18:04:30
2	Cd 226.502†	37080.0	37085.5	509.72	ug/L	509.72	ppb	18:04:36
2	Co 228.616†	16797.5	16781.6	499.34	ug/L	499.34	ppb	18:04:56
2	Cr 267.716†	38265.6	38021.6	507.60	ug/L	507.60	ppb	18:04:36
2	Cu 324.752†	144275.2	135862.4	501.11	ug/L	501.11	ppb	18:04:36
2	Mn 257.610†	323973.8	321995.9	506.16	ug/L	506.16	ppb	18:04:36
2	Mo 202.031†	5553.5	5515.0	499.05	ug/L	499.05	ppb	18:04:56
2	Ni 231.604†	16636.3	16476.3	508.37	ug/L	508.37	ppb	18:04:36

2	P 214.914†	4823.7	4601.8	2398.7 ug/L	2398.7 ppb	18:04:56
2	Pb 220.353†	3127.7	3170.3	505.07 ug/L	505.07 ppb	18:04:56
2	S 181.975 Axial†	841.5	796.5	988.47 ug/L	988.47 ppb	18:04:56
2	Sb 206.836†	1311.1	1272.0	516.67 ug/L	516.67 ppb	18:04:56
2	Se 196.026†	830.5	845.5	515.11 ug/L	515.11 ppb	18:04:56
2	Si 251.611†	71476.9	70584.4	2511.1 ug/L	2511.1 ppb	18:04:36
2	Sn 189.927†	2217.2	2193.5	501.90 ug/L	501.90 ppb	18:04:56
2	Ti 334.940†	253184.9	253310.3	501.68 ug/L	501.68 ppb	18:04:36
2	Tl 190.801†	1067.2	1097.8	501.13 ug/L	501.13 ppb	18:04:56
2	U 409.014†	12646.0	14954.2	494.15 ug/L	494.15 ppb	18:04:36
2	V 292.402†	63462.5	64818.7	510.00 ug/L	510.00 ppb	18:04:36
2	Zn 213.857†	48113.1	47086.0	501.28 ug/L	501.28 ppb	18:04:36
2	SiO2†	71546.5	70644.4	5392.3 ug/L	5392.3 ppb	18:05:37
3	Sc Radial	4744.7	4744.7	99.9 %		18:03:33
3	Y RADIAL	4940.2	4940.2	98.02 %		18:03:33
3	Al 396.153Radial†	5243.8	5329.9	4856.7 ug/L	4856.7 ppb	18:03:33
3	Ca 317.933Radial†	2783.6	2767.3	4952.1 ug/L	4952.1 ppb	18:03:53
3	Fe 238.204 Radial†	493.5	486.6	5065.0 ug/L	5065.0 ppb	18:03:53
3	K 766.490 Radial†	29296.8	27010.1	5094.2 ug/L	5094.2 ppb	18:03:33
3	Mg 279.077 IEC†	133.8	131.8	5194.1 ug/L	5194.1 ppb	18:03:53
3	Na 589.592 Radial†	30548.3	31306.3	9526.1 ug/L	9526.1 ppb	18:03:33
3	Sr 421.552†	69659.5	69688.3	496.55 ug/L	496.55 ppb	18:03:33
3	Sc 361.383	812202.0	812202.0	102.70 %		18:05:01
3	Y 371.029	716903.6	716903.6	101.40 %		18:05:01
3	Ag 328.068†	99626.0	96825.8	489.42 ug/L	489.42 ppb	18:05:06
3	As 188.979†	1136.6	1135.3	497.73 ug/L	497.73 ppb	18:05:26
3	B 249.677†	19848.5	19550.0	483.96 ug/L	483.96 ppb	18:05:06
3	Ba 233.527†	43446.4	42306.3	491.83 ug/L	491.83 ppb	18:05:06
3	Be 313.107†	1274630.3	1250394.5	490.30 ug/L	490.30 ppb	18:05:01
3	Cd 226.502†	36683.3	35899.9	493.40 ug/L	493.40 ppb	18:05:06
3	Co 228.616†	16814.9	16436.4	489.08 ug/L	489.08 ppb	18:05:26
3	Cr 267.716†	37796.2	36739.6	490.49 ug/L	490.49 ppb	18:05:06
3	Cu 324.752†	142640.8	131160.5	483.77 ug/L	483.77 ppb	18:05:06
3	Mn 257.610†	320554.3	311681.8	489.96 ug/L	489.96 ppb	18:05:06
3	Mo 202.031†	5562.6	5404.2	489.04 ug/L	489.04 ppb	18:05:26
3	Ni 231.604†	16437.9	15924.5	491.34 ug/L	491.34 ppb	18:05:06
3	P 214.914†	4835.9	4509.7	2352.1 ug/L	2352.1 ppb	18:05:26
3	Pb 220.353†	3111.7	3087.2	491.85 ug/L	491.85 ppb	18:05:26
3	S 181.975 Axial†	849.6	786.2	975.66 ug/L	975.66 ppb	18:05:26
3	Sb 206.836†	1298.5	1231.5	500.40 ug/L	500.40 ppb	18:05:26
3	Se 196.026†	825.4	822.6	501.68 ug/L	501.68 ppb	18:05:26
3	Si 251.611†	70686.9	68274.1	2428.9 ug/L	2428.9 ppb	18:05:06
3	Sn 189.927†	2219.6	2148.1	491.50 ug/L	491.50 ppb	18:05:26
3	Ti 334.940†	250529.9	245266.8	485.75 ug/L	485.75 ppb	18:05:06
3	Tl 190.801†	1071.7	1079.2	492.55 ug/L	492.55 ppb	18:05:26
3	U 409.014†	12510.3	14549.4	480.76 ug/L	480.76 ppb	18:05:06
3	V 292.402†	62791.7	62797.3	494.15 ug/L	494.15 ppb	18:05:06
3	Zn 213.857†	47575.0	45524.8	484.63 ug/L	484.63 ppb	18:05:06
3	SiO2†	70837.3	68411.4	5221.7 ug/L	5221.7 ppb	18:05:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	808851.4	102.28	%	1.631				1.59%
Sc Radial	4756.8	100	%	0.3				0.32%
Y 371.029	714421.3	101.05	%	1.517				1.50%
Y RADIAL	4993.8	99.08	%	0.930				0.94%
Ag 328.068†	97775.5	494.20	ug/L	9.873	494.20	ppb	9.873	2.00%
QC value within limits for Ag 328.068 Recovery = 98.84%								
Al 396.153Radial†	5385.0	4907.1	ug/L	59.78	4907.1	ppb	59.78	1.22%
QC value within limits for Al 396.153Radial Recovery = 98.14%								
As 188.979†	1135.2	497.70	ug/L	8.806	497.70	ppb	8.806	1.77%
QC value within limits for As 188.979 Recovery = 99.54%								
B 249.677†	19690.8	487.46	ug/L	10.208	487.46	ppb	10.208	2.09%
QC value within limits for B 249.677 Recovery = 97.49%								
Ba 233.527†	42692.0	496.32	ug/L	10.491	496.32	ppb	10.491	2.11%
QC value within limits for Ba 233.527 Recovery = 99.26%								
Be 313.107†	1252530.3	491.15	ug/L	0.739	491.15	ppb	0.739	0.15%
QC value within limits for Be 313.107 Recovery = 98.23%								
Ca 317.933Radial†	2771.2	4959.2	ug/L	16.82	4959.2	ppb	16.82	0.34%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.18%
Cd 226.502†            36219.0      497.79 ug/L        10.446      497.79 ppb         10.446   2.10%
   QC value within limits for Cd 226.502  Recovery = 99.56%
Co 228.616†            16455.7      489.65 ug/L         9.428      489.65 ppb          9.428   1.93%
   QC value within limits for Co 228.616  Recovery = 97.93%
Cr 267.716†            37128.1      495.68 ug/L        10.358      495.68 ppb         10.358   2.09%
   QC value within limits for Cr 267.716  Recovery = 99.14%
Cu 324.752†           132589.1      489.04 ug/L        10.478      489.04 ppb         10.478   2.14%
   QC value within limits for Cu 324.752  Recovery = 97.81%
Fe 238.204 Radial†       484.2      5040.4 ug/L         39.26      5040.4 ppb          39.26   0.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.81%
K 766.490 Radial†      27161.3      5122.7 ug/L         37.14      5122.7 ppb          37.14   0.72%
   QC value within limits for K 766.490 Radial  Recovery = 102.45%
Mg 279.077 IEC†          130.5      5140.6 ug/L         47.24      5140.6 ppb          47.24   0.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.81%
Mn 257.610†           314673.7      494.66 ug/L        10.015      494.66 ppb         10.015   2.02%
   QC value within limits for Mn 257.610  Recovery = 98.93%
Mo 202.031†             5408.7      489.44 ug/L         9.414      489.44 ppb          9.414   1.92%
   QC value within limits for Mo 202.031  Recovery = 97.89%
Na 589.592 Radial†     31458.6      9572.5 ug/L         40.15      9572.5 ppb          40.15   0.42%
   QC value within limits for Na 589.592 Radial  Recovery = 95.72%
Ni 231.604†            16092.3      496.52 ug/L        10.288      496.52 ppb         10.288   2.07%
   QC value within limits for Ni 231.604  Recovery = 99.30%
P 214.914†              4508.6      2350.5 ug/L         49.09      2350.5 ppb          49.09   2.09%
   QC value within limits for P 214.914  Recovery = 94.02%
Pb 220.353†             3095.4      493.16 ug/L        11.300      493.16 ppb         11.300   2.29%
   QC value within limits for Pb 220.353  Recovery = 98.63%
S 181.975 Axial†         784.8      974.01 ug/L        15.350      974.01 ppb         15.350   1.58%
   QC value within limits for S 181.975 Axial  Recovery = 97.40%
Sb 206.836†             1237.5      502.77 ug/L        12.877      502.77 ppb         12.877   2.56%
   QC value within limits for Sb 206.836  Recovery = 100.55%
Se 196.026†              826.7      504.07 ug/L        10.066      504.07 ppb         10.066   2.00%
   QC value within limits for Se 196.026  Recovery = 100.81%
Si 251.611†            68933.3      2452.4 ug/L         51.23      2452.4 ppb          51.23   2.09%
   QC value within limits for Si 251.611  Recovery = 98.10%
Sn 189.927†             2146.9      491.23 ug/L        10.801      491.23 ppb         10.801   2.20%
   QC value within limits for Sn 189.927  Recovery = 98.25%
Sr 421.552†            70182.1      500.07 ug/L         3.635      500.07 ppb          3.635   0.73%
   QC value within limits for Sr 421.552  Recovery = 100.01%
Ti 334.940†           247604.4      490.38 ug/L         9.837      490.38 ppb          9.837   2.01%
   QC value within limits for Ti 334.940  Recovery = 98.08%
Tl 190.801†             1078.7      492.36 ug/L         8.863      492.36 ppb          8.863   1.80%
   QC value within limits for Tl 190.801  Recovery = 98.47%
U 409.014†             14710.7      486.10 ug/L         7.097      486.10 ppb          7.097   1.46%
   QC value within limits for U 409.014  Recovery = 97.22%
V 292.402†             63379.4      498.68 ug/L         9.866      498.68 ppb          9.866   1.98%
   QC value within limits for V 292.402  Recovery = 99.74%
Zn 213.857†            45989.7      489.59 ug/L        10.167      489.59 ppb         10.167   2.08%
   QC value within limits for Zn 213.857  Recovery = 97.92%
SiO2†                  68918.6      5260.5 ug/L        117.32      5260.5 ppb         117.32   2.23%
   QC value within limits for SiO2  Recovery = 98.37%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/4/2010 18:07:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4876.4	4876.4	103	%			18:09:46
1	Y RADIAL	5203.7	5203.7	103.2	%			18:09:46
1	Al 396.153Radial†	-84.4	0.3	0.3331	ug/L	0.3331	ppb	18:10:06
1	Ca 317.933Radial†	17.7	-1.0	-1.7610	ug/L	-1.7610	ppb	18:10:06
1	Fe 238.204 Radial†	6.0	-1.5	-15.175	ug/L	-15.175	ppb	18:10:06
1	K 766.490 Radial†	2488.4	116.1	21.917	ug/L	21.917	ppb	18:09:46
1	Mg 279.077 IEC†	1.7	-0.4	-16.735	ug/L	-16.735	ppb	18:10:06
1	Na 589.592 Radial†	-740.5	16.1	4.8839	ug/L	4.8839	ppb	18:09:46
1	Sr 421.552†	21.0	1.5	0.0107	ug/L	0.0107	ppb	18:09:46
1	Sc 361.383	798323.8	798323.8	100.95	%			18:11:03
1	Y 371.029	711661.2	711661.2	100.66	%			18:11:03
1	Ag 328.068†	93.8	-83.5	-0.4242	ug/L	-0.4242	ppb	18:11:03
1	As 188.979†	-33.2	-4.2	-1.8412	ug/L	-1.8412	ppb	18:11:23
1	B 249.677†	-153.6	72.1	1.7954	ug/L	1.7954	ppb	18:11:23
1	Ba 233.527†	5.7	9.7	0.1119	ug/L	0.1119	ppb	18:11:23
1	Be 313.107†	-9536.0	-113.8	-0.0445	ug/L	-0.0445	ppb	18:11:03
1	Cd 226.502†	-177.6	6.7	0.0936	ug/L	0.0936	ppb	18:11:23
1	Co 228.616†	-69.7	-4.7	-0.1406	ug/L	-0.1406	ppb	18:11:23
1	Cr 267.716†	82.4	20.4	0.2715	ug/L	0.2715	ppb	18:11:23
1	Cu 324.752†	7768.3	-28.5	-0.1058	ug/L	-0.1058	ppb	18:11:03
1	Mn 257.610†	440.7	6.1	0.0088	ug/L	0.0088	ppb	18:11:23
1	Mo 202.031†	6.4	-5.6	-0.5077	ug/L	-0.5077	ppb	18:11:23
1	Ni 231.604†	82.3	1.1	0.0329	ug/L	0.0329	ppb	18:11:23
1	P 214.914†	214.1	13.2	7.2104	ug/L	7.2104	ppb	18:11:23
1	Pb 220.353†	-64.9	-6.8	-1.0756	ug/L	-1.0756	ppb	18:11:23
1	S 181.975 Axial†	56.0	14.5	17.988	ug/L	17.988	ppb	18:11:23
1	Sb 206.836†	35.4	2.2	0.8730	ug/L	0.8730	ppb	18:11:23
1	Se 196.026†	-19.3	-0.2	-0.1493	ug/L	-0.1493	ppb	18:11:23
1	Si 251.611†	627.5	70.4	2.5167	ug/L	2.5167	ppb	18:11:23
1	Sn 189.927†	14.7	1.4	0.3311	ug/L	0.3311	ppb	18:11:23
1	Ti 334.940†	-1345.7	1.8	0.0046	ug/L	0.0046	ppb	18:11:03
1	Tl 190.801†	-39.3	-3.2	-1.4535	ug/L	-1.4535	ppb	18:11:23
1	U 409.014†	-2398.0	-6.8	-0.2236	ug/L	-0.2236	ppb	18:11:03
1	V 292.402†	-1677.6	-2.4	-0.0248	ug/L	-0.0248	ppb	18:11:03
1	Zn 213.857†	706.4	-97.5	-1.0460	ug/L	-1.0460	ppb	18:11:23
1	SiO2†	604.4	38.4	2.9549	ug/L	2.9549	ppb	18:12:19
2	Sc Radial	4784.0	4784.0	101	%			18:10:11
2	Y RADIAL	5048.0	5048.0	100.2	%			18:10:11
2	Al 396.153Radial†	-86.7	-3.5	-3.2272	ug/L	-3.2272	ppb	18:10:31
2	Ca 317.933Radial†	20.2	1.8	3.1387	ug/L	3.1387	ppb	18:10:31
2	Fe 238.204 Radial†	8.3	0.9	9.6787	ug/L	9.6787	ppb	18:10:31
2	K 766.490 Radial†	2449.5	124.3	23.478	ug/L	23.478	ppb	18:10:11
2	Mg 279.077 IEC†	0.7	-1.4	-56.384	ug/L	-56.384	ppb	18:10:31
2	Na 589.592 Radial†	-720.0	22.5	6.8460	ug/L	6.8460	ppb	18:10:11
2	Sr 421.552†	4.8	-14.1	-0.1009	ug/L	-0.1009	ppb	18:10:11
2	Sc 361.383	801618.9	801618.9	101.37	%			18:11:28
2	Y 371.029	715479.0	715479.0	101.20	%			18:11:28
2	Ag 328.068†	115.7	-62.3	-0.3150	ug/L	-0.3150	ppb	18:11:28
2	As 188.979†	-29.4	-0.4	-0.1641	ug/L	-0.1641	ppb	18:11:48
2	B 249.677†	-105.2	120.5	2.9957	ug/L	2.9957	ppb	18:11:48
2	Ba 233.527†	-12.1	-7.9	-0.0930	ug/L	-0.0930	ppb	18:11:48
2	Be 313.107†	-9576.3	-114.7	-0.0449	ug/L	-0.0449	ppb	18:11:28
2	Cd 226.502†	-189.9	-4.7	-0.0651	ug/L	-0.0651	ppb	18:11:48
2	Co 228.616†	-70.0	-4.7	-0.1413	ug/L	-0.1413	ppb	18:11:48
2	Cr 267.716†	61.5	-0.5	-0.0087	ug/L	-0.0087	ppb	18:11:48
2	Cu 324.752†	7920.9	90.4	0.3320	ug/L	0.3320	ppb	18:11:28
2	Mn 257.610†	437.4	1.0	0.0048	ug/L	0.0048	ppb	18:11:48
2	Mo 202.031†	8.5	-3.6	-0.3231	ug/L	-0.3231	ppb	18:11:48
2	Ni 231.604†	68.7	-12.7	-0.3919	ug/L	-0.3919	ppb	18:11:48

2	P 214.914†	216.5	14.7	7.9144 ug/L	7.9144 ppb		18:11:48
2	Pb 220.353†	-72.2	-13.7	-2.1850 ug/L	-2.1850 ppb		18:11:48
2	S 181.975 Axial†	42.5	0.9	1.1615 ug/L	1.1615 ppb		18:11:48
2	Sb 206.836†	32.7	-0.6	-0.2482 ug/L	-0.2482 ppb		18:11:48
2	Se 196.026†	-12.7	6.4	3.8485 ug/L	3.8485 ppb		18:11:48
2	Si 251.611†	602.7	43.4	1.5534 ug/L	1.5534 ppb		18:11:48
2	Sn 189.927†	10.5	-2.7	-0.6202 ug/L	-0.6202 ppb		18:11:48
2	Ti 334.940†	-1353.5	-0.5	0.0026 ug/L	0.0026 ppb		18:11:28
2	Tl 190.801†	-44.7	-8.4	-3.8180 ug/L	-3.8180 ppb		18:11:48
2	U 409.014†	-2299.9	99.7	3.3064 ug/L	3.3064 ppb		18:11:28
2	V 292.402†	-1751.0	-68.1	-0.5296 ug/L	-0.5296 ppb		18:11:28
2	Zn 213.857†	696.8	-109.9	-1.1798 ug/L	-1.1798 ppb		18:11:48
2	SiO2†	634.6	65.8	5.0406 ug/L	5.0406 ppb		18:12:24
3	Sc Radial	4812.0	4812.0	101 %			18:10:36
3	Y RADIAL	5104.2	5104.2	101.3 %			18:10:36
3	Al 396.153Radial†	-91.1	-7.4	-6.7524 ug/L	-6.7524 ppb		18:10:56
3	Ca 317.933Radial†	16.1	-2.4	-4.2629 ug/L	-4.2629 ppb		18:10:56
3	Fe 238.204 Radial†	8.6	1.2	12.302 ug/L	12.302 ppb		18:10:56
3	K 766.490 Radial†	2512.1	171.9	32.464 ug/L	32.464 ppb		18:10:36
3	Mg 279.077 IEC†	-1.0	-3.1	-121.24 ug/L	-121.24 ppb		18:10:56
3	Na 589.592 Radial†	-728.2	18.5	5.6338 ug/L	5.6338 ppb		18:10:36
3	Sr 421.552†	51.8	32.1	0.2290 ug/L	0.2290 ppb		18:10:36
3	Sc 361.383	795961.6	795961.6	100.65 %			18:11:53
3	Y 371.029	708976.0	708976.0	100.28 %			18:11:53
3	Ag 328.068†	211.8	33.9	0.1771 ug/L	0.1771 ppb		18:11:53
3	As 188.979†	-24.5	4.3	1.8684 ug/L	1.8684 ppb		18:12:13
3	B 249.677†	-140.3	84.9	2.1079 ug/L	2.1079 ppb		18:12:13
3	Ba 233.527†	-9.3	-5.2	-0.0602 ug/L	-0.0602 ppb		18:12:13
3	Be 313.107†	-9571.5	-177.1	-0.0695 ug/L	-0.0695 ppb		18:11:53
3	Cd 226.502†	-179.3	4.5	0.0603 ug/L	0.0603 ppb		18:12:13
3	Co 228.616†	-61.5	3.3	0.0970 ug/L	0.0970 ppb		18:12:13
3	Cr 267.716†	71.7	10.0	0.1357 ug/L	0.1357 ppb		18:12:13
3	Cu 324.752†	7758.4	-15.6	-0.0544 ug/L	-0.0544 ppb		18:11:53
3	Mn 257.610†	436.2	2.9	0.0108 ug/L	0.0108 ppb		18:12:13
3	Mo 202.031†	11.9	-0.2	-0.0170 ug/L	-0.0170 ppb		18:12:13
3	Ni 231.604†	89.8	8.8	0.2707 ug/L	0.2707 ppb		18:12:13
3	P 214.914†	207.4	7.2	3.9175 ug/L	3.9175 ppb		18:12:13
3	Pb 220.353†	-52.5	5.4	0.8489 ug/L	0.8489 ppb		18:12:13
3	S 181.975 Axial†	49.3	7.9	9.8329 ug/L	9.8329 ppb		18:12:13
3	Sb 206.836†	41.5	8.3	3.2659 ug/L	3.2659 ppb		18:12:13
3	Se 196.026†	-21.1	-2.0	-1.1800 ug/L	-1.1800 ppb		18:12:13
3	Si 251.611†	625.8	70.6	2.5188 ug/L	2.5188 ppb		18:12:13
3	Sn 189.927†	14.6	1.4	0.3159 ug/L	0.3159 ppb		18:12:13
3	Ti 334.940†	-1388.1	-44.4	-0.0767 ug/L	-0.0767 ppb		18:11:53
3	Tl 190.801†	-28.9	7.0	3.1878 ug/L	3.1878 ppb		18:12:13
3	U 409.014†	-2518.1	-133.2	-4.4175 ug/L	-4.4175 ppb		18:11:53
3	V 292.402†	-1695.4	-25.2	-0.2081 ug/L	-0.2081 ppb		18:11:53
3	Zn 213.857†	712.6	-89.3	-0.9628 ug/L	-0.9628 ppb		18:12:13
3	SiO2†	629.7	65.3	4.9989 ug/L	4.9989 ppb		18:12:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	798634.7	100.99	%	0.359				0.36%
Sc Radial	4824.1	102	%	1.0				0.98%
Y 371.029	712038.8	100.71	%	0.462				0.46%
Y RADIAL	5118.7	101.6	%	1.56				1.54%
Ag 328.068†	-37.3	-0.1873	ug/L	0.32032	-0.1873	ppb	0.32032	170.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.5	-3.2155	ug/L	3.54273	-3.2155	ppb	3.54273	110.18%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0456	ug/L	1.85766	-0.0456	ppb	1.85766	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	92.5	2.2997	ug/L	0.62267	2.2997	ppb	0.62267	27.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.1	-0.0138	ug/L	0.11005	-0.0138	ppb	0.11005	799.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-135.2	-0.0530	ug/L	0.01432	-0.0530	ppb	0.01432	27.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.5	-0.9617	ug/L	3.76498	-0.9617	ppb	3.76498	391.48%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 2.2      0.0296 ug/L       0.08365      0.0296 ppb        0.08365 282.72%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -2.0     -0.0616 ug/L       0.13742     -0.0616 ppb        0.13742 222.91%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.0      0.1328 ug/L       0.14016      0.1328 ppb        0.14016 105.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                15.4      0.0573 ug/L       0.23929      0.0573 ppb        0.23929 417.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.2      2.2685 ug/L      15.16337      2.2685 ppb       15.16337 668.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         137.4      25.953 ug/L        5.6924      25.953 ppb         5.6924  21.93%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.6     -64.786 ug/L       52.7566     -64.786 ppb        52.7566  81.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 3.4      0.0081 ug/L       0.00301      0.0081 ppb        0.00301  36.99%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.1     -0.2826 ug/L       0.24782     -0.2826 ppb        0.24782  87.70%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         19.0      5.7879 ug/L       0.99008      5.7879 ppb        0.99008  17.11%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -1.0     -0.0294 ug/L       0.33569     -0.0294 ppb        0.33569 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 11.7      6.3474 ug/L       2.13361      6.3474 ppb        2.13361  33.61%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.1     -0.8039 ug/L       1.53510     -0.8039 ppb        1.53510 190.96%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.8      9.6606 ug/L       8.41434      9.6606 ppb        8.41434  87.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.3      1.2969 ug/L       1.79500      1.2969 ppb        1.79500 138.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.4      0.8397 ug/L       2.65613      0.8397 ppb        2.65613 316.31%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                61.5      2.1963 ug/L       0.55676      2.1963 ppb        0.55676  25.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.0      0.0089 ug/L       0.54485      0.0089 ppb        0.54485 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.5      0.0463 ug/L       0.16776      0.0463 ppb        0.16776 362.41%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -14.4     -0.0231 ug/L       0.04636     -0.0231 ppb        0.04636 200.34%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.5     -0.6946 ug/L       3.56405     -0.6946 ppb        3.56405 513.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -13.4     -0.4449 ug/L       3.86670     -0.4449 ppb        3.86670 869.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -31.9     -0.2542 ug/L       0.25555     -0.2542 ppb        0.25555 100.54%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -98.9     -1.0629 ug/L       0.10951     -1.0629 ppb        0.10951  10.30%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      56.5      4.3315 ug/L       1.19237      4.3315 ppb        1.19237  27.53%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/4/2010 18:29:05 **Plasma On Time: 3/1/2010 06:57:40**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\030410.sif
Batch ID:
Results Data Set: 030410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/4/2010 18:29:06**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4808.1	4808.1	101	%			18:30:58
1	Y RADIAL	5039.6	5039.6	99.99	%			18:30:58
1	Al 396.153Radial†	5254.3	5271.0	4802.9	ug/L	4802.9	ppb	18:30:58
1	Ca 317.933Radial†	2810.6	2757.1	4934.0	ug/L	4934.0	ppb	18:31:18
1	Fe 238.204 Radial†	495.6	482.1	5018.7	ug/L	5018.7	ppb	18:31:18
1	K 766.490 Radial†	29197.2	26525.1	5002.7	ug/L	5002.7	ppb	18:30:58
1	Mg 279.077 IEC†	133.7	129.9	5118.3	ug/L	5118.3	ppb	18:31:18
1	Na 589.592 Radial†	30344.4	30701.8	9342.2	ug/L	9342.2	ppb	18:30:58
1	Sr 421.552†	69626.0	68735.8	489.76	ug/L	489.76	ppb	18:30:58
1	Sc 361.383	814248.9	814248.9	102.96	%			18:32:15
1	Y 371.029	717262.5	717262.5	101.45	%			18:32:15
1	Ag 328.068†	98577.8	95563.9	483.05	ug/L	483.05	ppb	18:32:20
1	As 188.979†	1130.0	1126.1	493.68	ug/L	493.68	ppb	18:32:40
1	B 249.677†	19555.1	19216.5	475.64	ug/L	475.64	ppb	18:32:20
1	Ba 233.527†	43132.8	41895.3	487.06	ug/L	487.06	ppb	18:32:20
1	Be 313.107†	1258594.2	1231700.1	482.98	ug/L	482.98	ppb	18:32:15
1	Cd 226.502†	36369.6	35505.4	487.98	ug/L	487.98	ppb	18:32:20
1	Co 228.616†	17263.1	16830.6	500.81	ug/L	500.81	ppb	18:32:20
1	Cr 267.716†	37447.5	36308.4	484.74	ug/L	484.74	ppb	18:32:20
1	Cu 324.752†	141494.2	129697.8	478.38	ug/L	478.38	ppb	18:32:20
1	Mn 257.610†	318797.2	309190.7	486.04	ug/L	486.04	ppb	18:32:20
1	Mo 202.031†	5540.1	5368.7	485.82	ug/L	485.82	ppb	18:32:40
1	Ni 231.604†	16318.2	15768.0	486.50	ug/L	486.50	ppb	18:32:20
1	P 214.914†	4856.2	4517.6	2357.4	ug/L	2357.4	ppb	18:32:40
1	Pb 220.353†	3111.3	3079.3	490.57	ug/L	490.57	ppb	18:32:40
1	S 181.975 Axial†	861.2	795.4	987.13	ug/L	987.13	ppb	18:32:40
1	Sb 206.836†	1303.8	1233.4	501.05	ug/L	501.05	ppb	18:32:40
1	Se 196.026†	832.0	827.1	504.19	ug/L	504.19	ppb	18:32:40
1	Si 251.611†	70126.4	67556.8	2403.3	ug/L	2403.3	ppb	18:32:20
1	Sn 189.927†	2210.0	2133.3	488.13	ug/L	488.13	ppb	18:32:40
1	Ti 334.940†	248717.4	242893.2	481.06	ug/L	481.06	ppb	18:32:20
1	Tl 190.801†	1073.6	1078.4	492.11	ug/L	492.11	ppb	18:32:40
1	U 409.014†	12417.7	14428.9	476.78	ug/L	476.78	ppb	18:32:20
1	V 292.402†	62197.4	62066.4	488.43	ug/L	488.43	ppb	18:32:20
1	Zn 213.857†	47279.8	45121.7	480.34	ug/L	480.34	ppb	18:32:20
1	SiO2†	70770.7	68173.4	5203.6	ug/L	5203.6	ppb	18:33:47
2	Sc Radial	4828.9	4828.9	102	%			18:31:23
2	Y RADIAL	5055.9	5055.9	100.3	%			18:31:23
2	Al 396.153Radial†	5275.9	5269.9	4802.0	ug/L	4802.0	ppb	18:31:23
2	Ca 317.933Radial†	2779.0	2714.1	4857.0	ug/L	4857.0	ppb	18:31:43
2	Fe 238.204 Radial†	485.8	470.4	4896.7	ug/L	4896.7	ppb	18:31:43
2	K 766.490 Radial†	29079.1	26284.7	4957.4	ug/L	4957.4	ppb	18:31:23
2	Mg 279.077 IEC†	132.2	127.9	5038.7	ug/L	5038.7	ppb	18:31:43
2	Na 589.592 Radial†	30286.8	30515.9	9285.6	ug/L	9285.6	ppb	18:31:23
2	Sr 421.552†	69712.5	68524.4	488.26	ug/L	488.26	ppb	18:31:23
2	Sc 361.383	816093.6	816093.6	103.20	%			18:32:46
2	Y 371.029	718659.4	718659.4	101.65	%			18:32:46

2	Ag 328.068†	98739.2	95503.9	482.71 ug/L	482.71 ppb	18:32:51
2	As 188.979†	1115.9	1109.9	486.60 ug/L	486.60 ppb	18:33:11
2	B 249.677†	19566.0	19184.1	474.87 ug/L	474.87 ppb	18:32:51
2	Ba 233.527†	43012.1	41683.6	484.59 ug/L	484.59 ppb	18:32:51
2	Be 313.107†	1261592.3	1231842.4	483.03 ug/L	483.03 ppb	18:32:46
2	Cd 226.502†	36256.6	35316.1	485.39 ug/L	485.39 ppb	18:32:51
2	Co 228.616†	17150.5	16683.6	496.44 ug/L	496.44 ppb	18:32:51
2	Cr 267.716†	37335.5	36117.7	482.19 ug/L	482.19 ppb	18:32:51
2	Cu 324.752†	141787.9	129671.7	478.28 ug/L	478.28 ppb	18:32:51
2	Mn 257.610†	318340.2	308048.0	484.24 ug/L	484.24 ppb	18:32:51
2	Mo 202.031†	5527.2	5344.0	483.59 ug/L	483.59 ppb	18:33:11
2	Ni 231.604†	16320.3	15734.2	485.46 ug/L	485.46 ppb	18:32:51
2	P 214.914†	4834.8	4486.1	2340.5 ug/L	2340.5 ppb	18:33:11
2	Pb 220.353†	3092.5	3054.2	486.60 ug/L	486.60 ppb	18:33:11
2	S 181.975 Axial†	850.8	783.4	972.18 ug/L	972.18 ppb	18:33:11
2	Sb 206.836†	1295.8	1222.8	496.81 ug/L	496.81 ppb	18:33:11
2	Se 196.026†	823.6	817.0	497.96 ug/L	497.96 ppb	18:33:11
2	Si 251.611†	70105.6	67382.7	2397.2 ug/L	2397.2 ppb	18:32:51
2	Sn 189.927†	2210.4	2128.8	487.10 ug/L	487.10 ppb	18:33:11
2	Ti 334.940†	248841.7	242467.6	480.21 ug/L	480.21 ppb	18:32:51
2	Tl 190.801†	1069.6	1072.2	489.29 ug/L	489.29 ppb	18:33:11
2	U 409.014†	12334.4	14320.9	473.22 ug/L	473.22 ppb	18:32:51
2	V 292.402†	62116.4	61851.4	486.74 ug/L	486.74 ppb	18:32:51
2	Zn 213.857†	47235.7	44975.1	478.79 ug/L	478.79 ppb	18:32:51
2	SiO2†	70429.2	67687.0	5166.4 ug/L	5166.4 ppb	18:33:53
3	Sc Radial	4816.8	4816.8	101 %		18:31:48
3	Y RADIAL	5068.8	5068.8	100.6 %		18:31:48
3	Al 396.153Radial†	5272.7	5279.8	4810.9 ug/L	4810.9 ppb	18:31:48
3	Ca 317.933Radial†	2798.5	2740.2	4903.8 ug/L	4903.8 ppb	18:32:08
3	Fe 238.204 Radial†	493.3	479.0	4986.2 ug/L	4986.2 ppb	18:32:08
3	K 766.490 Radial†	29120.0	26396.9	4978.5 ug/L	4978.5 ppb	18:31:48
3	Mg 279.077 IEC†	129.4	125.4	4942.5 ug/L	4942.5 ppb	18:32:08
3	Na 589.592 Radial†	30255.0	30559.5	9298.9 ug/L	9298.9 ppb	18:31:48
3	Sr 421.552†	69572.2	68558.5	488.50 ug/L	488.50 ppb	18:31:48
3	Sc 361.383	810878.1	810878.1	102.54 %		18:33:17
3	Y 371.029	714633.4	714633.4	101.08 %		18:33:17
3	Ag 328.068†	99493.1	96854.6	489.53 ug/L	489.53 ppb	18:33:22
3	As 188.979†	1133.3	1133.9	497.11 ug/L	497.11 ppb	18:33:42
3	B 249.677†	19781.0	19515.7	483.08 ug/L	483.08 ppb	18:33:22
3	Ba 233.527†	43351.4	42282.7	491.56 ug/L	491.56 ppb	18:33:22
3	Be 313.107†	1255633.3	1233894.0	483.85 ug/L	483.85 ppb	18:33:17
3	Cd 226.502†	36376.4	35658.8	490.10 ug/L	490.10 ppb	18:33:22
3	Co 228.616†	17308.5	16944.5	504.19 ug/L	504.19 ppb	18:33:22
3	Cr 267.716†	37590.6	36599.2	488.62 ug/L	488.62 ppb	18:33:22
3	Cu 324.752†	143408.7	132136.1	487.37 ug/L	487.37 ppb	18:33:22
3	Mn 257.610†	320561.8	312198.7	490.77 ug/L	490.77 ppb	18:33:22
3	Mo 202.031†	5518.7	5370.1	485.95 ug/L	485.95 ppb	18:33:42
3	Ni 231.604†	16392.4	15906.2	490.77 ug/L	490.77 ppb	18:33:22
3	P 214.914†	4829.6	4511.3	2352.2 ug/L	2352.2 ppb	18:33:42
3	Pb 220.353†	3116.6	3097.0	493.39 ug/L	493.39 ppb	18:33:42
3	S 181.975 Axial†	847.4	785.4	974.73 ug/L	974.73 ppb	18:33:42
3	Sb 206.836†	1289.0	1224.2	497.43 ug/L	497.43 ppb	18:33:42
3	Se 196.026†	820.4	819.1	499.38 ug/L	499.38 ppb	18:33:42
3	Si 251.611†	70762.2	68460.0	2435.5 ug/L	2435.5 ppb	18:33:22
3	Sn 189.927†	2202.0	2134.4	488.38 ug/L	488.38 ppb	18:33:42
3	Ti 334.940†	250799.1	245927.6	487.07 ug/L	487.07 ppb	18:33:22
3	Tl 190.801†	1064.3	1073.7	490.00 ug/L	490.00 ppb	18:33:42
3	U 409.014†	12646.8	14702.5	485.85 ug/L	485.85 ppb	18:33:22
3	V 292.402†	62534.0	62645.8	492.94 ug/L	492.94 ppb	18:33:22
3	Zn 213.857†	47482.7	45510.4	484.48 ug/L	484.48 ppb	18:33:22
3	SiO2†	71246.2	68922.8	5260.9 ug/L	5260.9 ppb	18:33:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	813740.2	102.90	%	0.334				0.33%
Sc Radial	4817.9	101	%	0.2				0.22%
Y 371.029	716851.8	101.39	%	0.289				0.29%
Y RADIAL	5054.8	100.3	%	0.29				0.29%
Ag 328.068†	95974.1	485.10	ug/L	3.846	485.10	ppb	3.846	0.79%

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   QC value within limits for Ag 328.068  Recovery = 97.02%
Al 396.153Radial†       5273.6      4805.3 ug/L          4.92      4805.3 ppb          4.92   0.10%
   QC value within limits for Al 396.153Radial  Recovery = 96.11%
As 188.979†             1123.3      492.46 ug/L         5.356      492.46 ppb         5.356   1.09%
   QC value within limits for As 188.979  Recovery = 98.49%
B 249.677†             19305.4      477.86 ug/L         4.533      477.86 ppb         4.533   0.95%
   QC value within limits for B 249.677  Recovery = 95.57%
Ba 233.527†            41953.9      487.73 ug/L         3.531      487.73 ppb         3.531   0.72%
   QC value within limits for Ba 233.527  Recovery = 97.55%
Be 313.107†          1232478.8      483.29 ug/L         0.489      483.29 ppb         0.489   0.10%
   QC value within limits for Be 313.107  Recovery = 96.66%
Ca 317.933Radial†       2737.2      4898.3 ug/L         38.79      4898.3 ppb         38.79   0.79%
   QC value within limits for Ca 317.933Radial  Recovery = 97.97%
Cd 226.502†            35493.4      487.82 ug/L         2.358      487.82 ppb         2.358   0.48%
   QC value within limits for Cd 226.502  Recovery = 97.56%
Co 228.616†            16819.6      500.48 ug/L         3.888      500.48 ppb         3.888   0.78%
   QC value within limits for Co 228.616  Recovery = 100.10%
Cr 267.716†            36341.8      485.18 ug/L         3.236      485.18 ppb         3.236   0.67%
   QC value within limits for Cr 267.716  Recovery = 97.04%
Cu 324.752†           130501.9      481.34 ug/L         5.218      481.34 ppb         5.218   1.08%
   QC value within limits for Cu 324.752  Recovery = 96.27%
Fe 238.204 Radial†       477.2      4967.2 ug/L         63.20      4967.2 ppb         63.20   1.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.34%
K 766.490 Radial†      26402.2      4979.5 ug/L         22.69      4979.5 ppb         22.69   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 99.59%
Mg 279.077 IEC†          127.7      5033.2 ug/L         88.05      5033.2 ppb         88.05   1.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.66%
Mn 257.610†           309812.5      487.02 ug/L         3.374      487.02 ppb         3.374   0.69%
   QC value within limits for Mn 257.610  Recovery = 97.40%
Mo 202.031†             5360.9      485.12 ug/L         1.330      485.12 ppb         1.330   0.27%
   QC value within limits for Mo 202.031  Recovery = 97.02%
Na 589.592 Radial†     30592.4      9308.9 ug/L         29.59      9308.9 ppb         29.59   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 93.09%
Ni 231.604†            15802.8      487.58 ug/L         2.811      487.58 ppb         2.811   0.58%
   QC value within limits for Ni 231.604  Recovery = 97.52%
P 214.914†              4505.0      2350.0 ug/L          8.69      2350.0 ppb          8.69   0.37%
   QC value within limits for P 214.914  Recovery = 94.00%
Pb 220.353†             3076.8      490.19 ug/L         3.412      490.19 ppb         3.412   0.70%
   QC value within limits for Pb 220.353  Recovery = 98.04%
S 181.975 Axial†         788.0      978.01 ug/L         7.995      978.01 ppb         7.995   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 97.80%
Sb 206.836†             1226.8      498.43 ug/L         2.289      498.43 ppb         2.289   0.46%
   QC value within limits for Sb 206.836  Recovery = 99.69%
Se 196.026†              821.1      500.51 ug/L         3.268      500.51 ppb         3.268   0.65%
   QC value within limits for Se 196.026  Recovery = 100.10%
Si 251.611†            67799.8      2412.0 ug/L         20.61      2412.0 ppb         20.61   0.85%
   QC value within limits for Si 251.611  Recovery = 96.48%
Sn 189.927†             2132.2      487.87 ug/L         0.678      487.87 ppb         0.678   0.14%
   QC value within limits for Sn 189.927  Recovery = 97.57%
Sr 421.552†            68606.2      488.84 ug/L         0.809      488.84 ppb         0.809   0.17%
   QC value within limits for Sr 421.552  Recovery = 97.77%
Ti 334.940†           243762.8      482.78 ug/L         3.741      482.78 ppb         3.741   0.77%
   QC value within limits for Ti 334.940  Recovery = 96.56%
Tl 190.801†             1074.8      490.47 ug/L         1.462      490.47 ppb         1.462   0.30%
   QC value within limits for Tl 190.801  Recovery = 98.09%
U 409.014†             14484.1      478.62 ug/L         6.510      478.62 ppb         6.510   1.36%
   QC value within limits for U 409.014  Recovery = 95.72%
V 292.402†             62187.9      489.37 ug/L         3.206      489.37 ppb         3.206   0.66%
   QC value within limits for V 292.402  Recovery = 97.87%
Zn 213.857†            45202.4      481.20 ug/L         2.943      481.20 ppb         2.943   0.61%
   QC value within limits for Zn 213.857  Recovery = 96.24%
SiO2†                  68261.1      5210.3 ug/L         47.61      5210.3 ppb         47.61   0.91%
   QC value within limits for SiO2  Recovery = 97.43%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/4/2010 18:36:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4755.8	4755.8	100	%			18:37:59
1	Y RADIAL	5024.0	5024.0	99.68	%			18:37:59
1	Al 396.153Radial†	-88.3	-5.7	-5.1891	ug/L	-5.1891	ppb	18:38:19
1	Ca 317.933Radial†	24.3	6.0	10.773	ug/L	10.773	ppb	18:38:19
1	Fe 238.204 Radial†	10.3	3.0	31.158	ug/L	31.158	ppb	18:38:19
1	K 766.490 Radial†	2468.4	157.6	29.754	ug/L	29.754	ppb	18:37:59
1	Mg 279.077 IEC†	0.8	-1.3	-50.354	ug/L	-50.354	ppb	18:38:19
1	Na 589.592 Radial†	-745.1	-6.8	-2.0579	ug/L	-2.0579	ppb	18:37:59
1	Sr 421.552†	12.9	-6.1	-0.0436	ug/L	-0.0436	ppb	18:37:59
1	Sc 361.383	791113.3	791113.3	100.04	%			18:39:16
1	Y 371.029	706020.4	706020.4	99.863	%			18:39:16
1	Ag 328.068†	168.1	-8.4	-0.0320	ug/L	-0.0320	ppb	18:39:16
1	As 188.979†	-34.4	-5.7	-2.4877	ug/L	-2.4877	ppb	18:39:36
1	B 249.677†	-144.4	79.9	1.9818	ug/L	1.9818	ppb	18:39:36
1	Ba 233.527†	1.7	5.8	0.0665	ug/L	0.0665	ppb	18:39:36
1	Be 313.107†	-9566.9	-230.8	-0.0902	ug/L	-0.0902	ppb	18:39:16
1	Cd 226.502†	-170.5	12.2	0.1637	ug/L	0.1637	ppb	18:39:36
1	Co 228.616†	-68.2	-3.8	-0.1133	ug/L	-0.1133	ppb	18:39:36
1	Cr 267.716†	68.3	7.1	0.0960	ug/L	0.0960	ppb	18:39:36
1	Cu 324.752†	7749.8	23.1	0.0892	ug/L	0.0892	ppb	18:39:16
1	Mn 257.610†	431.6	1.0	0.0067	ug/L	0.0067	ppb	18:39:36
1	Mo 202.031†	14.6	2.6	0.2402	ug/L	0.2402	ppb	18:39:36
1	Ni 231.604†	81.3	0.8	0.0244	ug/L	0.0244	ppb	18:39:36
1	P 214.914†	211.3	12.4	6.6747	ug/L	6.6747	ppb	18:39:36
1	Pb 220.353†	-56.9	0.7	0.1013	ug/L	0.1013	ppb	18:39:36
1	S 181.975 Axial†	44.7	3.6	4.4734	ug/L	4.4734	ppb	18:39:36
1	Sb 206.836†	44.9	12.0	4.7283	ug/L	4.7283	ppb	18:39:36
1	Se 196.026†	-22.1	-3.1	-1.7791	ug/L	-1.7791	ppb	18:39:36
1	Si 251.611†	583.3	31.9	1.1349	ug/L	1.1349	ppb	18:39:36
1	Sn 189.927†	18.8	5.7	1.3094	ug/L	1.3094	ppb	18:39:36
1	Ti 334.940†	-1318.8	16.4	0.0399	ug/L	0.0399	ppb	18:39:16
1	Tl 190.801†	-30.8	4.9	2.2417	ug/L	2.2417	ppb	18:39:36
1	U 409.014†	-2497.6	-128.0	-4.2490	ug/L	-4.2490	ppb	18:39:16
1	V 292.402†	-1742.2	-82.2	-0.6490	ug/L	-0.6490	ppb	18:39:16
1	Zn 213.857†	738.0	-59.6	-0.6449	ug/L	-0.6449	ppb	18:39:36
1	SiO2†	555.2	-5.3	-0.4131	ug/L	-0.4131	ppb	18:40:32
2	Sc Radial	4768.0	4768.0	100	%			18:38:24
2	Y RADIAL	5102.7	5102.7	101.2	%			18:38:24
2	Al 396.153Radial†	-94.0	-11.1	-10.164	ug/L	-10.164	ppb	18:38:44
2	Ca 317.933Radial†	25.0	6.7	11.916	ug/L	11.916	ppb	18:38:44
2	Fe 238.204 Radial†	8.3	1.0	10.187	ug/L	10.187	ppb	18:38:44
2	K 766.490 Radial†	2303.0	-13.5	-2.5446	ug/L	-2.5446	ppb	18:38:24
2	Mg 279.077 IEC†	3.8	1.7	67.296	ug/L	67.296	ppb	18:38:44
2	Na 589.592 Radial†	-767.2	-26.9	-8.1794	ug/L	-8.1794	ppb	18:38:24
2	Sr 421.552†	34.0	14.9	0.1061	ug/L	0.1061	ppb	18:38:24
2	Sc 361.383	794486.2	794486.2	100.46	%			18:39:41
2	Y 371.029	708073.0	708073.0	100.15	%			18:39:41
2	Ag 328.068†	129.4	-47.7	-0.2375	ug/L	-0.2375	ppb	18:39:41
2	As 188.979†	-28.6	0.1	0.0597	ug/L	0.0597	ppb	18:40:01
2	B 249.677†	-147.1	77.8	1.9339	ug/L	1.9339	ppb	18:40:01
2	Ba 233.527†	-12.6	-8.6	-0.0989	ug/L	-0.0989	ppb	18:40:01
2	Be 313.107†	-9621.3	-244.3	-0.0954	ug/L	-0.0954	ppb	18:39:41
2	Cd 226.502†	-182.7	0.8	0.0101	ug/L	0.0101	ppb	18:40:01
2	Co 228.616†	-69.1	-4.4	-0.1306	ug/L	-0.1306	ppb	18:40:01
2	Cr 267.716†	89.7	28.1	0.3741	ug/L	0.3741	ppb	18:40:01
2	Cu 324.752†	7885.5	125.3	0.4619	ug/L	0.4619	ppb	18:39:41
2	Mn 257.610†	411.0	-21.3	-0.0353	ug/L	-0.0353	ppb	18:40:01
2	Mo 202.031†	15.0	3.0	0.2679	ug/L	0.2679	ppb	18:40:01
2	Ni 231.604†	71.1	-9.7	-0.3006	ug/L	-0.3006	ppb	18:40:01

2	P 214.914†	217.0	17.1	9.2009	ug/L	9.2009	ppb	18:40:01
2	Pb 220.353†	-70.7	-12.8	-2.0367	ug/L	-2.0367	ppb	18:40:01
2	S 181.975 Axial†	51.7	10.5	12.999	ug/L	12.999	ppb	18:40:01
2	Sb 206.836†	28.8	-4.1	-1.6216	ug/L	-1.6216	ppb	18:40:01
2	Se 196.026†	-16.5	2.6	1.5570	ug/L	1.5570	ppb	18:40:01
2	Si 251.611†	590.8	36.9	1.3120	ug/L	1.3120	ppb	18:40:01
2	Sn 189.927†	13.2	0.1	0.0176	ug/L	0.0176	ppb	18:40:01
2	Ti 334.940†	-1293.1	47.6	0.0898	ug/L	0.0898	ppb	18:39:41
2	Tl 190.801†	-39.1	-3.2	-1.4459	ug/L	-1.4459	ppb	18:40:01
2	U 409.014†	-2342.5	37.0	1.2237	ug/L	1.2237	ppb	18:39:41
2	V 292.402†	-1664.0	3.0	0.0293	ug/L	0.0293	ppb	18:39:41
2	Zn 213.857†	743.0	-57.8	-0.6209	ug/L	-0.6209	ppb	18:40:01
2	SiO2†	583.1	20.1	1.5326	ug/L	1.5326	ppb	18:40:37
3	Sc Radial	4820.9	4820.9	102	%			18:38:49
3	Y RADIAL	5108.4	5108.4	101.4	%			18:38:49
3	Al 396.153Radial†	-92.5	-8.6	-7.8774	ug/L	-7.8774	ppb	18:39:09
3	Ca 317.933Radial†	18.7	0.1	0.2598	ug/L	0.2598	ppb	18:39:09
3	Fe 238.204 Radial†	9.1	1.7	17.952	ug/L	17.952	ppb	18:39:09
3	K 766.490 Radial†	2464.2	120.1	22.682	ug/L	22.682	ppb	18:38:49
3	Mg 279.077 IEC†	3.3	1.1	45.185	ug/L	45.185	ppb	18:39:09
3	Na 589.592 Radial†	-750.6	-2.1	-0.6493	ug/L	-0.6493	ppb	18:38:49
3	Sr 421.552†	23.8	4.5	0.0319	ug/L	0.0319	ppb	18:38:49
3	Sc 361.383	798650.1	798650.1	100.99	%			18:40:07
3	Y 371.029	713547.7	713547.7	100.93	%			18:40:07
3	Ag 328.068†	180.6	2.4	0.0169	ug/L	0.0169	ppb	18:40:07
3	As 188.979†	-23.4	5.5	2.3796	ug/L	2.3796	ppb	18:40:27
3	B 249.677†	-190.3	35.8	0.8859	ug/L	0.8859	ppb	18:40:27
3	Ba 233.527†	-0.4	3.6	0.0415	ug/L	0.0415	ppb	18:40:27
3	Be 313.107†	-9613.6	-186.7	-0.0730	ug/L	-0.0730	ppb	18:40:07
3	Cd 226.502†	-185.5	-1.1	-0.0171	ug/L	-0.0171	ppb	18:40:27
3	Co 228.616†	-54.7	10.2	0.3006	ug/L	0.3006	ppb	18:40:27
3	Cr 267.716†	85.2	23.2	0.3091	ug/L	0.3091	ppb	18:40:27
3	Cu 324.752†	7866.9	66.0	0.2450	ug/L	0.2450	ppb	18:40:07
3	Mn 257.610†	429.4	-5.2	-0.0083	ug/L	-0.0083	ppb	18:40:27
3	Mo 202.031†	5.4	-6.6	-0.5967	ug/L	-0.5967	ppb	18:40:27
3	Ni 231.604†	81.0	-0.2	-0.0077	ug/L	-0.0077	ppb	18:40:27
3	P 214.914†	204.6	3.8	1.9681	ug/L	1.9681	ppb	18:40:27
3	Pb 220.353†	-58.3	-0.2	-0.0411	ug/L	-0.0411	ppb	18:40:27
3	S 181.975 Axial†	48.1	6.6	8.2036	ug/L	8.2036	ppb	18:40:27
3	Sb 206.836†	34.3	1.1	0.4175	ug/L	0.4175	ppb	18:40:27
3	Se 196.026†	-16.3	2.8	1.6888	ug/L	1.6888	ppb	18:40:27
3	Si 251.611†	579.5	22.7	0.8165	ug/L	0.8165	ppb	18:40:27
3	Sn 189.927†	12.2	-1.0	-0.2331	ug/L	-0.2331	ppb	18:40:27
3	Ti 334.940†	-1326.8	21.0	0.0383	ug/L	0.0383	ppb	18:40:07
3	Tl 190.801†	-42.1	-6.0	-2.7142	ug/L	-2.7142	ppb	18:40:27
3	U 409.014†	-2429.0	-36.5	-1.2131	ug/L	-1.2131	ppb	18:40:07
3	V 292.402†	-1725.3	-49.0	-0.3934	ug/L	-0.3934	ppb	18:40:07
3	Zn 213.857†	738.8	-65.7	-0.7088	ug/L	-0.7088	ppb	18:40:27
3	SiO2†	588.4	22.3	1.7199	ug/L	1.7199	ppb	18:40:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	794749.9	100.50	%	0.477				0.48%
Sc Radial	4781.6	101	%	0.7				0.72%
Y 371.029	709213.7	100.31	%	0.550				0.55%
Y RADIAL	5078.4	100.8	%	0.94				0.93%
Ag 328.068†	-17.9	-0.0842	ug/L	0.13502	-0.0842	ppb	0.13502	160.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.5	-7.7435	ug/L	2.49019	-7.7435	ppb	2.49019	32.16%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0161	ug/L	2.43453	-0.0161	ppb	2.43453	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	64.5	1.6005	ug/L	0.61934	1.6005	ppb	0.61934	38.70%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.3	0.0030	ug/L	0.08917	0.0030	ppb	0.08917	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-220.6	-0.0862	ug/L	0.01173	-0.0862	ppb	0.01173	13.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.3	7.6496	ug/L	6.42528	7.6496	ppb	6.42528	84.00%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 4.0      0.0522 ug/L       0.09748      0.0522 ppb        0.09748 186.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.7      0.0189 ug/L       0.24414      0.0189 ppb        0.24414 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.4      0.2597 ug/L       0.14549      0.2597 ppb        0.14549  56.02%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                71.4      0.2653 ug/L       0.18720      0.2653 ppb        0.18720  70.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.9      19.766 ug/L       10.6024      19.766 ppb        10.6024  53.64%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          88.1      16.630 ug/L       16.9782      16.630 ppb        16.9782 102.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      20.709 ug/L       62.5273      20.709 ppb        62.5273 301.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -8.5     -0.0123 ug/L       0.02129     -0.0123 ppb        0.02129 173.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.3     -0.0295 ug/L       0.49141     -0.0295 ppb        0.49141 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -11.9     -3.6289 ug/L       4.00332     -3.6289 ppb        4.00332 110.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.1     -0.0947 ug/L       0.17908     -0.0947 ppb        0.17908 189.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 11.1      5.9479 ug/L       3.67075      5.9479 ppb        3.67075  61.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.1     -0.6588 ug/L       1.19540     -0.6588 ppb        1.19540 181.44%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.9      8.5588 ug/L       4.27401      8.5588 ppb        4.27401  49.94%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.0      1.1747 ug/L       3.24193      1.1747 ppb        3.24193 275.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.8      0.4889 ug/L       1.96526      0.4889 ppb        1.96526 401.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                30.5      1.0878 ug/L       0.25112      1.0878 ppb        0.25112  23.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.6      0.3647 ug/L       0.82773      0.3647 ppb        0.82773 226.99%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 4.4      0.0315 ug/L       0.07485      0.0315 ppb        0.07485 237.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.3      0.0560 ug/L       0.02928      0.0560 ppb        0.02928  52.29%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.4     -0.6395 ug/L       2.57448     -0.6395 ppb        2.57448 402.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -42.5     -1.4128 ug/L       2.74185     -1.4128 ppb        2.74185 194.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -42.7     -0.3377 ug/L       0.34255     -0.3377 ppb        0.34255 101.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -61.0     -0.6582 ug/L       0.04542     -0.6582 ppb        0.04542   6.90%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      12.4      0.9465 ug/L       1.18114      0.9465 ppb        1.18114 124.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/4/2010 19:43:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4457.4	4457.4	93.9	%			19:45:45
1	Y RADIAL	4720.1	4720.1	93.65	%			19:45:45
1	Al 396.153Radial†	5390.1	5823.9	5308.9	ug/L	5308.9	ppb	19:45:45
1	Ca 317.933Radial†	2840.2	3007.1	5381.3	ug/L	5381.3	ppb	19:46:05
1	Fe 238.204 Radial†	500.8	526.2	5476.2	ug/L	5476.2	ppb	19:46:05
1	K 766.490 Radial†	29212.2	28809.5	5433.7	ug/L	5433.7	ppb	19:45:45
1	Mg 279.077 IEC†	133.5	140.1	5520.8	ug/L	5520.8	ppb	19:46:05
1	Na 589.592 Radial†	30084.1	32782.0	9975.2	ug/L	9975.2	ppb	19:45:45
1	Sr 421.552†	70117.5	74668.8	532.04	ug/L	532.04	ppb	19:45:45
1	Sc 361.383	804239.0	804239.0	101.70	%			19:47:02
1	Y 371.029	709259.1	709259.1	100.32	%			19:47:02
1	Ag 328.068†	100267.4	98416.9	497.55	ug/L	497.55	ppb	19:47:07
1	As 188.979†	1135.6	1145.2	502.19	ug/L	502.19	ppb	19:47:27
1	B 249.677†	19750.7	19645.2	486.20	ug/L	486.20	ppb	19:47:07
1	Ba 233.527†	43663.6	42938.7	499.19	ug/L	499.19	ppb	19:47:07
1	Be 313.107†	1280779.3	1268729.0	497.50	ug/L	497.50	ppb	19:47:02
1	Cd 226.502†	36650.0	36220.8	497.78	ug/L	497.78	ppb	19:47:07
1	Co 228.616†	17325.7	17100.8	508.83	ug/L	508.83	ppb	19:47:07
1	Cr 267.716†	37827.7	37135.0	495.78	ug/L	495.78	ppb	19:47:07
1	Cu 324.752†	144445.8	134310.5	495.41	ug/L	495.41	ppb	19:47:07
1	Mn 257.610†	322353.1	316541.0	497.62	ug/L	497.62	ppb	19:47:07
1	Mo 202.031†	5546.6	5442.0	492.50	ug/L	492.50	ppb	19:47:27
1	Ni 231.604†	16485.4	16129.7	497.66	ug/L	497.66	ppb	19:47:07
1	P 214.914†	4858.1	4578.2	2386.7	ug/L	2386.7	ppb	19:47:27
1	Pb 220.353†	3119.6	3125.0	497.93	ug/L	497.93	ppb	19:47:27
1	S 181.975 Axial†	850.7	795.4	987.11	ug/L	987.11	ppb	19:47:27
1	Sb 206.836†	1308.1	1253.4	509.05	ug/L	509.05	ppb	19:47:27
1	Se 196.026†	833.0	838.1	511.81	ug/L	511.81	ppb	19:47:27
1	Si 251.611†	71338.8	69596.7	2476.0	ug/L	2476.0	ppb	19:47:07
1	Sn 189.927†	2199.0	2149.2	491.82	ug/L	491.82	ppb	19:47:27
1	Ti 334.940†	252765.5	249880.3	494.92	ug/L	494.92	ppb	19:47:07
1	Tl 190.801†	1075.5	1093.2	498.94	ug/L	498.94	ppb	19:47:27
1	U 409.014†	12714.4	14870.7	491.35	ug/L	491.35	ppb	19:47:07
1	V 292.402†	62904.1	63513.3	499.71	ug/L	499.71	ppb	19:47:07
1	Zn 213.857†	47898.8	46301.8	492.86	ug/L	492.86	ppb	19:47:07
1	SiO2†	70667.5	68927.3	5261.1	ug/L	5261.1	ppb	19:48:34
2	Sc Radial	4745.0	4745.0	99.9	%			19:46:10
2	Y RADIAL	4992.2	4992.2	99.05	%			19:46:10
2	Al 396.153Radial†	5367.9	5453.6	4969.8	ug/L	4969.8	ppb	19:46:10
2	Ca 317.933Radial†	2813.7	2797.2	5005.7	ug/L	5005.7	ppb	19:46:30
2	Fe 238.204 Radial†	494.0	487.0	5069.3	ug/L	5069.3	ppb	19:46:30
2	K 766.490 Radial†	29371.2	27082.2	5107.9	ug/L	5107.9	ppb	19:46:10
2	Mg 279.077 IEC†	131.6	129.6	5107.2	ug/L	5107.2	ppb	19:46:30
2	Na 589.592 Radial†	30132.8	30888.0	9398.9	ug/L	9398.9	ppb	19:46:10
2	Sr 421.552†	70243.9	70267.3	500.68	ug/L	500.68	ppb	19:46:10
2	Sc 361.383	809629.4	809629.4	102.38	%			19:47:33
2	Y 371.029	714095.9	714095.9	101.01	%			19:47:33
2	Ag 328.068†	99653.8	97161.2	491.11	ug/L	491.11	ppb	19:47:38
2	As 188.979†	1138.4	1140.5	500.01	ug/L	500.01	ppb	19:47:58
2	B 249.677†	19704.2	19470.5	481.94	ug/L	481.94	ppb	19:47:38
2	Ba 233.527†	43539.8	42531.9	494.46	ug/L	494.46	ppb	19:47:38
2	Be 313.107†	1288860.9	1268238.0	497.29	ug/L	497.29	ppb	19:47:33
2	Cd 226.502†	36701.2	36030.8	495.20	ug/L	495.20	ppb	19:47:38
2	Co 228.616†	17290.1	16952.6	504.44	ug/L	504.44	ppb	19:47:38
2	Cr 267.716†	37839.1	36898.5	492.61	ug/L	492.61	ppb	19:47:38
2	Cu 324.752†	143249.3	132196.2	487.59	ug/L	487.59	ppb	19:47:38
2	Mn 257.610†	321838.4	313927.8	493.49	ug/L	493.49	ppb	19:47:38
2	Mo 202.031†	5594.6	5452.5	493.41	ug/L	493.41	ppb	19:47:58
2	Ni 231.604†	16557.8	16092.5	496.52	ug/L	496.52	ppb	19:47:38

2	P 214.914†	4858.4	4546.7	2371.4 ug/L	2371.4 ppb	19:47:58
2	Pb 220.353†	3122.5	3107.4	495.09 ug/L	495.09 ppb	19:47:58
2	S 181.975 Axial†	862.7	801.6	994.80 ug/L	994.80 ppb	19:47:58
2	Sb 206.836†	1306.7	1243.5	505.17 ug/L	505.17 ppb	19:47:58
2	Se 196.026†	831.5	831.1	506.75 ug/L	506.75 ppb	19:47:58
2	Si 251.611†	71080.6	68877.4	2450.3 ug/L	2450.3 ppb	19:47:38
2	Sn 189.927†	2206.9	2142.6	490.25 ug/L	490.25 ppb	19:47:58
2	Ti 334.940†	251681.3	247166.5	489.53 ug/L	489.53 ppb	19:47:38
2	Tl 190.801†	1070.6	1081.4	493.52 ug/L	493.52 ppb	19:47:58
2	U 409.014†	12689.6	14763.3	487.85 ug/L	487.85 ppb	19:47:38
2	V 292.402†	62979.8	63175.3	497.15 ug/L	497.15 ppb	19:47:38
2	Zn 213.857†	47766.2	45858.7	488.18 ug/L	488.18 ppb	19:47:38
2	SiO2†	72013.2	69779.2	5326.3 ug/L	5326.3 ppb	19:48:39
3	Sc Radial	4742.6	4742.6	99.9 %		19:46:35
3	Y RADIAL	4982.3	4982.3	98.85 %		19:46:35
3	Al 396.153Radial†	5350.5	5439.0	4956.3 ug/L	4956.3 ppb	19:46:35
3	Ca 317.933Radial†	2837.3	2822.2	5050.4 ug/L	5050.4 ppb	19:46:55
3	Fe 238.204 Radial†	496.9	490.2	5102.8 ug/L	5102.8 ppb	19:46:55
3	K 766.490 Radial†	29384.2	27110.5	5113.2 ug/L	5113.2 ppb	19:46:35
3	Mg 279.077 IEC†	132.0	130.0	5124.1 ug/L	5124.1 ppb	19:46:55
3	Na 589.592 Radial†	30075.6	30846.5	9386.2 ug/L	9386.2 ppb	19:46:35
3	Sr 421.552†	70109.7	70169.5	499.98 ug/L	499.98 ppb	19:46:35
3	Sc 361.383	806083.6	806083.6	101.93 %		19:48:03
3	Y 371.029	710271.3	710271.3	100.46 %		19:48:03
3	Ag 328.068†	100231.9	98156.6	496.14 ug/L	496.14 ppb	19:48:09
3	As 188.979†	1138.7	1145.8	502.35 ug/L	502.35 ppb	19:48:29
3	B 249.677†	19839.3	19687.7	487.31 ug/L	487.31 ppb	19:48:09
3	Ba 233.527†	43923.1	43095.0	501.00 ug/L	501.00 ppb	19:48:09
3	Be 313.107†	1282795.2	1267824.8	497.14 ug/L	497.14 ppb	19:48:03
3	Cd 226.502†	36959.4	36441.8	500.85 ug/L	500.85 ppb	19:48:09
3	Co 228.616†	17468.6	17202.0	511.85 ug/L	511.85 ppb	19:48:09
3	Cr 267.716†	38118.7	37335.3	498.45 ug/L	498.45 ppb	19:48:09
3	Cu 324.752†	144399.7	133940.3	494.03 ug/L	494.03 ppb	19:48:09
3	Mn 257.610†	324141.4	317570.0	499.22 ug/L	499.22 ppb	19:48:09
3	Mo 202.031†	5585.8	5468.0	494.81 ug/L	494.81 ppb	19:48:29
3	Ni 231.604†	16660.6	16264.5	501.82 ug/L	501.82 ppb	19:48:09
3	P 214.914†	4874.8	4583.6	2390.1 ug/L	2390.1 ppb	19:48:29
3	Pb 220.353†	3139.0	3137.0	499.79 ug/L	499.79 ppb	19:48:29
3	S 181.975 Axial†	870.0	812.4	1008.3 ug/L	1008.3 ppb	19:48:29
3	Sb 206.836†	1304.8	1247.2	506.66 ug/L	506.66 ppb	19:48:29
3	Se 196.026†	828.9	832.2	507.45 ug/L	507.45 ppb	19:48:29
3	Si 251.611†	71708.9	69799.2	2483.2 ug/L	2483.2 ppb	19:48:09
3	Sn 189.927†	2200.4	2145.7	490.97 ug/L	490.97 ppb	19:48:29
3	Ti 334.940†	253576.1	250106.8	495.35 ug/L	495.35 ppb	19:48:09
3	Tl 190.801†	1082.7	1097.9	501.03 ug/L	501.03 ppb	19:48:29
3	U 409.014†	12580.9	14711.2	486.10 ug/L	486.10 ppb	19:48:09
3	V 292.402†	63360.5	63819.5	502.15 ug/L	502.15 ppb	19:48:09
3	Zn 213.857†	48003.4	46296.6	492.83 ug/L	492.83 ppb	19:48:09
3	SiO2†	71107.5	69200.0	5281.9 ug/L	5281.9 ppb	19:48:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	806650.6	102.00	%	0.346				0.34%
Sc Radial	4648.3	97.9	%	3.48				3.56%
Y 371.029	711208.7	100.60	%	0.361				0.36%
Y RADIAL	4898.2	97.18	%	3.062				3.15%
Ag 328.068†	97911.6	494.94	ug/L	3.384	494.94	ppb	3.384	0.68%
QC value within limits for Ag 328.068 Recovery = 98.99%								
Al 396.153Radial†	5572.2	5078.3	ug/L	199.80	5078.3	ppb	199.80	3.93%
QC value within limits for Al 396.153Radial Recovery = 101.57%								
As 188.979†	1143.8	501.52	ug/L	1.311	501.52	ppb	1.311	0.26%
QC value within limits for As 188.979 Recovery = 100.30%								
B 249.677†	19601.1	485.15	ug/L	2.838	485.15	ppb	2.838	0.58%
QC value within limits for B 249.677 Recovery = 97.03%								
Ba 233.527†	42855.2	498.22	ug/L	3.379	498.22	ppb	3.379	0.68%
QC value within limits for Ba 233.527 Recovery = 99.64%								
Be 313.107†	1268263.9	497.31	ug/L	0.177	497.31	ppb	0.177	0.04%
QC value within limits for Be 313.107 Recovery = 99.46%								
Ca 317.933Radial†	2875.5	5145.8	ug/L	205.17	5145.8	ppb	205.17	3.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.92%
Cd 226.502†            36231.1      497.94 ug/L         2.829      497.94 ppb          2.829   0.57%
   QC value within limits for Cd 226.502  Recovery = 99.59%
Co 228.616†            17085.1      508.38 ug/L         3.728      508.38 ppb          3.728   0.73%
   QC value within limits for Co 228.616  Recovery = 101.68%
Cr 267.716†            37122.9      495.61 ug/L         2.920      495.61 ppb          2.920   0.59%
   QC value within limits for Cr 267.716  Recovery = 99.12%
Cu 324.752†           133482.3      492.34 ug/L         4.172      492.34 ppb          4.172   0.85%
   QC value within limits for Cu 324.752  Recovery = 98.47%
Fe 238.204 Radial†       501.1      5216.1 ug/L        225.85      5216.1 ppb         225.85   4.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.32%
K 766.490 Radial†      27667.4      5218.2 ug/L        186.59      5218.2 ppb         186.59   3.58%
   QC value within limits for K 766.490 Radial  Recovery = 104.36%
Mg 279.077 IEC†          133.3      5250.7 ug/L        234.06      5250.7 ppb         234.06   4.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.01%
Mn 257.610†           316012.9      496.78 ug/L         2.954      496.78 ppb          2.954   0.59%
   QC value within limits for Mn 257.610  Recovery = 99.36%
Mo 202.031†             5454.2      493.57 ug/L         1.165      493.57 ppb          1.165   0.24%
   QC value within limits for Mo 202.031  Recovery = 98.71%
Na 589.592 Radial†     31505.5      9586.7 ug/L        336.44      9586.7 ppb         336.44   3.51%
   QC value within limits for Na 589.592 Radial  Recovery = 95.87%
Ni 231.604†            16162.2      498.67 ug/L         2.793      498.67 ppb          2.793   0.56%
   QC value within limits for Ni 231.604  Recovery = 99.73%
P 214.914†              4569.5      2382.7 ug/L          9.97      2382.7 ppb           9.97   0.42%
   QC value within limits for P 214.914  Recovery = 95.31%
Pb 220.353†             3123.2      497.60 ug/L         2.365      497.60 ppb          2.365   0.48%
   QC value within limits for Pb 220.353  Recovery = 99.52%
S 181.975 Axial†         803.2      996.73 ug/L        10.722      996.73 ppb         10.722   1.08%
   QC value within limits for S 181.975 Axial  Recovery = 99.67%
Sb 206.836†             1248.0      506.96 ug/L         1.958      506.96 ppb          1.958   0.39%
   QC value within limits for Sb 206.836  Recovery = 101.39%
Se 196.026†              833.8      508.67 ug/L         2.743      508.67 ppb          2.743   0.54%
   QC value within limits for Se 196.026  Recovery = 101.73%
Si 251.611†            69424.4      2469.8 ug/L         17.27      2469.8 ppb         17.27   0.70%
   QC value within limits for Si 251.611  Recovery = 98.79%
Sn 189.927†             2145.8      491.01 ug/L         0.784      491.01 ppb          0.784   0.16%
   QC value within limits for Sn 189.927  Recovery = 98.20%
Sr 421.552†            71701.9      510.90 ug/L        18.311      510.90 ppb         18.311   3.58%
   QC value within limits for Sr 421.552  Recovery = 102.18%
Ti 334.940†           249051.2      493.27 ug/L         3.246      493.27 ppb          3.246   0.66%
   QC value within limits for Ti 334.940  Recovery = 98.65%
Tl 190.801†             1090.8      497.83 ug/L         3.875      497.83 ppb          3.875   0.78%
   QC value within limits for Tl 190.801  Recovery = 99.57%
U 409.014†             14781.7      488.43 ug/L         2.676      488.43 ppb          2.676   0.55%
   QC value within limits for U 409.014  Recovery = 97.69%
V 292.402†             63502.7      499.67 ug/L         2.503      499.67 ppb          2.503   0.50%
   QC value within limits for V 292.402  Recovery = 99.93%
Zn 213.857†            46152.4      491.29 ug/L         2.696      491.29 ppb          2.696   0.55%
   QC value within limits for Zn 213.857  Recovery = 98.26%
SiO2†                  69302.2      5289.8 ug/L         33.28      5289.8 ppb         33.28   0.63%
   QC value within limits for SiO2  Recovery = 98.92%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/4/2010 19:50:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4801.3	4801.3	101	%			19:52:46
1	Y RADIAL	5114.1	5114.1	101.5	%			19:52:46
1	Al 396.153Radial†	-90.0	-6.6	-6.0204	ug/L	-6.0204	ppb	19:53:06
1	Ca 317.933Radial†	27.4	8.8	15.771	ug/L	15.771	ppb	19:53:06
1	Fe 238.204 Radial†	5.8	-1.6	-16.096	ug/L	-16.096	ppb	19:53:06
1	K 766.490 Radial†	2552.1	217.0	40.973	ug/L	40.973	ppb	19:52:46
1	Mg 279.077 IEC†	1.3	-0.8	-32.315	ug/L	-32.315	ppb	19:53:06
1	Na 589.592 Radial†	-773.3	-27.6	-8.4052	ug/L	-8.4052	ppb	19:52:46
1	Sr 421.552†	53.0	33.5	0.2383	ug/L	0.2383	ppb	19:52:46
1	Sc 361.383	790407.7	790407.7	99.949	%			19:54:03
1	Y 371.029	706608.7	706608.7	99.946	%			19:54:03
1	Ag 328.068†	170.6	-5.7	-0.0346	ug/L	-0.0346	ppb	19:54:03
1	As 188.979†	-38.5	-9.9	-4.3074	ug/L	-4.3074	ppb	19:54:23
1	B 249.677†	-218.4	5.7	0.1442	ug/L	0.1442	ppb	19:54:23
1	Ba 233.527†	3.4	7.5	0.0850	ug/L	0.0850	ppb	19:54:23
1	Be 313.107†	-9535.2	-207.6	-0.0812	ug/L	-0.0812	ppb	19:54:03
1	Cd 226.502†	-181.7	0.9	0.0139	ug/L	0.0139	ppb	19:54:23
1	Co 228.616†	-58.6	5.7	0.1703	ug/L	0.1703	ppb	19:54:23
1	Cr 267.716†	67.1	5.9	0.0779	ug/L	0.0779	ppb	19:54:23
1	Cu 324.752†	7974.9	255.2	0.9413	ug/L	0.9413	ppb	19:54:03
1	Mn 257.610†	453.3	23.1	0.0360	ug/L	0.0360	ppb	19:54:23
1	Mo 202.031†	15.3	3.3	0.3000	ug/L	0.3000	ppb	19:54:23
1	Ni 231.604†	112.3	31.8	0.9828	ug/L	0.9828	ppb	19:54:23
1	P 214.914†	189.1	-9.6	-5.3813	ug/L	-5.3813	ppb	19:54:23
1	Pb 220.353†	-76.0	-18.5	-2.9331	ug/L	-2.9331	ppb	19:54:23
1	S 181.975 Axial†	38.1	-2.9	-3.6336	ug/L	-3.6336	ppb	19:54:23
1	Sb 206.836†	37.3	4.5	1.7520	ug/L	1.7520	ppb	19:54:23
1	Se 196.026†	-25.6	-6.7	-4.0091	ug/L	-4.0091	ppb	19:54:23
1	Si 251.611†	729.7	178.9	6.3782	ug/L	6.3782	ppb	19:54:23
1	Sn 189.927†	12.2	-0.8	-0.1832	ug/L	-0.1832	ppb	19:54:23
1	Ti 334.940†	-1328.0	6.1	0.0173	ug/L	0.0173	ppb	19:54:03
1	Tl 190.801†	-40.9	-5.2	-2.3568	ug/L	-2.3568	ppb	19:54:23
1	U 409.014†	-2407.5	-40.1	-1.3286	ug/L	-1.3286	ppb	19:54:03
1	V 292.402†	-1711.3	-52.9	-0.4071	ug/L	-0.4071	ppb	19:54:03
1	Zn 213.857†	767.1	-29.8	-0.3253	ug/L	-0.3253	ppb	19:54:23
1	SiO2†	732.6	172.7	13.206	ug/L	13.206	ppb	19:55:19
2	Sc Radial	4839.6	4839.6	102	%			19:53:11
2	Y RADIAL	5115.3	5115.3	101.5	%			19:53:11
2	Al 396.153Radial†	-73.3	10.5	9.6475	ug/L	9.6475	ppb	19:53:31
2	Ca 317.933Radial†	21.1	2.4	4.3490	ug/L	4.3490	ppb	19:53:31
2	Fe 238.204 Radial†	6.8	-0.6	-6.3349	ug/L	-6.3349	ppb	19:53:31
2	K 766.490 Radial†	2555.4	200.2	37.807	ug/L	37.807	ppb	19:53:11
2	Mg 279.077 IEC†	0.1	-2.0	-77.708	ug/L	-77.708	ppb	19:53:31
2	Na 589.592 Radial†	-780.1	-28.3	-8.6030	ug/L	-8.6030	ppb	19:53:11
2	Sr 421.552†	43.4	23.7	0.1686	ug/L	0.1686	ppb	19:53:11
2	Sc 361.383	788301.0	788301.0	99.682	%			19:54:28
2	Y 371.029	704239.0	704239.0	99.611	%			19:54:28
2	Ag 328.068†	232.3	56.6	0.2783	ug/L	0.2783	ppb	19:54:28
2	As 188.979†	-41.6	-13.2	-5.7214	ug/L	-5.7214	ppb	19:54:49
2	B 249.677†	-197.7	25.9	0.6454	ug/L	0.6454	ppb	19:54:49
2	Ba 233.527†	4.1	8.1	0.0941	ug/L	0.0941	ppb	19:54:49
2	Be 313.107†	-9571.5	-269.5	-0.1055	ug/L	-0.1055	ppb	19:54:28
2	Cd 226.502†	-185.6	-3.6	-0.0476	ug/L	-0.0476	ppb	19:54:49
2	Co 228.616†	-57.5	6.7	0.1989	ug/L	0.1989	ppb	19:54:49
2	Cr 267.716†	45.5	-15.6	-0.2104	ug/L	-0.2104	ppb	19:54:49
2	Cu 324.752†	7953.7	255.3	0.9384	ug/L	0.9384	ppb	19:54:28
2	Mn 257.610†	473.1	44.2	0.0719	ug/L	0.0719	ppb	19:54:49
2	Mo 202.031†	12.5	0.5	0.0476	ug/L	0.0476	ppb	19:54:49
2	Ni 231.604†	78.1	-2.2	-0.0665	ug/L	-0.0665	ppb	19:54:49

2	P 214.914†	209.8	11.7	6.1628	ug/L	6.1628 ppb	19:54:49
2	Pb 220.353†	-47.2	10.1	1.6091	ug/L	1.6091 ppb	19:54:49
2	S 181.975 Axial†	43.0	2.1	2.5911	ug/L	2.5911 ppb	19:54:49
2	Sb 206.836†	33.5	0.8	0.3119	ug/L	0.3119 ppb	19:54:49
2	Se 196.026†	-19.3	-0.4	-0.2230	ug/L	-0.2230 ppb	19:54:49
2	Si 251.611†	736.5	187.7	6.6947	ug/L	6.6947 ppb	19:54:49
2	Sn 189.927†	15.9	2.9	0.6572	ug/L	0.6572 ppb	19:54:49
2	Ti 334.940†	-1350.6	-20.1	-0.0350	ug/L	-0.0350 ppb	19:54:28
2	Tl 190.801†	-36.8	-1.2	-0.5536	ug/L	-0.5536 ppb	19:54:49
2	U 409.014†	-2209.3	152.3	5.0514	ug/L	5.0514 ppb	19:54:28
2	V 292.402†	-1653.4	0.7	0.0151	ug/L	0.0151 ppb	19:54:28
2	Zn 213.857†	757.9	-37.0	-0.3972	ug/L	-0.3972 ppb	19:54:49
2	SiO2†	701.6	143.5	10.983	ug/L	10.983 ppb	19:55:24
3	Sc Radial	4853.5	4853.5	102	%		19:53:36
3	Y RADIAL	5129.8	5129.8	101.8	%		19:53:36
3	Al 396.153Radial†	-82.5	1.8	1.6015	ug/L	1.6015 ppb	19:53:56
3	Ca 317.933Radial†	20.5	1.7	3.1294	ug/L	3.1294 ppb	19:53:56
3	Fe 238.204 Radial†	8.5	1.0	10.436	ug/L	10.436 ppb	19:53:56
3	K 766.490 Radial†	2604.2	240.8	45.470	ug/L	45.470 ppb	19:53:36
3	Mg 279.077 IEC†	1.8	-0.4	-14.995	ug/L	-14.995 ppb	19:53:56
3	Na 589.592 Radial†	-777.0	-23.0	-7.0023	ug/L	-7.0023 ppb	19:53:36
3	Sr 421.552†	18.1	-1.3	-0.0090	ug/L	-0.0090 ppb	19:53:36
3	Sc 361.383	801602.0	801602.0	101.36	%		19:54:54
3	Y 371.029	715201.6	715201.6	101.16	%		19:54:54
3	Ag 328.068†	131.6	-46.6	-0.2259	ug/L	-0.2259 ppb	19:54:54
3	As 188.979†	-35.4	-6.3	-2.7285	ug/L	-2.7285 ppb	19:55:14
3	B 249.677†	-214.4	12.8	0.3143	ug/L	0.3143 ppb	19:55:14
3	Ba 233.527†	-4.0	0.1	0.0018	ug/L	0.0018 ppb	19:55:14
3	Be 313.107†	-9660.4	-197.8	-0.0770	ug/L	-0.0770 ppb	19:54:54
3	Cd 226.502†	-184.0	1.1	0.0134	ug/L	0.0134 ppb	19:55:14
3	Co 228.616†	-48.5	16.5	0.4907	ug/L	0.4907 ppb	19:55:14
3	Cr 267.716†	66.0	3.9	0.0543	ug/L	0.0543 ppb	19:55:14
3	Cu 324.752†	8039.7	207.8	0.7697	ug/L	0.7697 ppb	19:54:54
3	Mn 257.610†	472.6	35.8	0.0579	ug/L	0.0579 ppb	19:55:14
3	Mo 202.031†	13.4	1.2	0.1111	ug/L	0.1111 ppb	19:55:14
3	Ni 231.604†	96.2	14.5	0.4460	ug/L	0.4460 ppb	19:55:14
3	P 214.914†	207.0	5.4	2.7556	ug/L	2.7556 ppb	19:55:14
3	Pb 220.353†	-46.7	11.4	1.8111	ug/L	1.8111 ppb	19:55:14
3	S 181.975 Axial†	43.5	1.9	2.3773	ug/L	2.3773 ppb	19:55:14
3	Sb 206.836†	38.9	5.5	2.1899	ug/L	2.1899 ppb	19:55:14
3	Se 196.026†	-23.5	-4.2	-2.4611	ug/L	-2.4611 ppb	19:55:14
3	Si 251.611†	727.0	166.1	5.9225	ug/L	5.9225 ppb	19:55:14
3	Sn 189.927†	16.8	3.5	0.8009	ug/L	0.8009 ppb	19:55:14
3	Ti 334.940†	-1264.2	87.6	0.1774	ug/L	0.1774 ppb	19:54:54
3	Tl 190.801†	-24.7	11.3	5.1310	ug/L	5.1310 ppb	19:55:14
3	U 409.014†	-2558.0	-155.0	-5.1394	ug/L	-5.1394 ppb	19:54:54
3	V 292.402†	-1652.7	28.8	0.2135	ug/L	0.2135 ppb	19:54:54
3	Zn 213.857†	751.0	-56.4	-0.6110	ug/L	-0.6110 ppb	19:55:14
3	SiO2†	754.2	183.7	14.052	ug/L	14.052 ppb	19:55:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	793436.9	100.33	%	0.904				0.90%
Sc Radial	4831.5	102	%	0.6				0.56%
Y 371.029	708683.1	100.24	%	0.816				0.81%
Y RADIAL	5119.7	101.6	%	0.17				0.17%
Ag 328.068†	1.4	0.0060	ug/L	0.25453	0.0060	ppb	0.25453	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.9	1.7429	ug/L	7.83488	1.7429	ppb	7.83488	449.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-9.8	-4.2524	ug/L	1.49720	-4.2524	ppb	1.49720	35.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	14.8	0.3680	ug/L	0.25491	0.3680	ppb	0.25491	69.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.2	0.0603	ug/L	0.05085	0.0603	ppb	0.05085	84.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-225.0	-0.0879	ug/L	0.01540	-0.0879	ppb	0.01540	17.52%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.3	7.7497	ug/L	6.97320	7.7497	ppb	6.97320	89.98%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -0.5     -0.0068 ug/L       0.03533     -0.0068 ppb        0.03533 522.73%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.6      0.2866 ug/L       0.17732      0.2866 ppb        0.17732  61.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.0     -0.0261 ug/L       0.16012     -0.0261 ppb        0.16012 614.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               239.4      0.8832 ug/L       0.09828      0.8832 ppb        0.09828  11.13%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -3.9985 ug/L      13.41951     -3.9985 ppb       13.41951 335.62%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         219.3      41.417 ug/L        3.8508      41.417 ppb         3.8508   9.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -41.673 ug/L       32.3871     -41.673 ppb        32.3871  77.72%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                34.4      0.0553 ug/L       0.01809      0.0553 ppb        0.01809  32.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.7      0.1529 ug/L       0.13130      0.1529 ppb        0.13130  85.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -26.3     -8.0035 ug/L       0.87272     -8.0035 ppb        0.87272  10.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.7      0.4541 ug/L       0.52469      0.4541 ppb        0.52469 115.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.5      1.1790 ug/L       5.93136      1.1790 ppb        5.93136 503.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.0      0.1624 ug/L       2.68266      0.1624 ppb        2.68266 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.4      0.4449 ug/L       3.53372      0.4449 ppb        3.53372 794.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.6      1.4179 ug/L       0.98255      1.4179 ppb        0.98255  69.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.7     -2.2311 ug/L       1.90348     -2.2311 ppb        1.90348  85.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               177.6      6.3318 ug/L       0.38819      6.3318 ppb        0.38819   6.13%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.9      0.4250 ug/L       0.53157      0.4250 ppb        0.53157 125.08%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                18.6      0.1326 ug/L       0.12748      0.1326 ppb        0.12748  96.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                24.5      0.0532 ug/L       0.11069      0.0532 ppb        0.11069 207.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.6      0.7402 ug/L       3.90799      0.7402 ppb        3.90799 527.96%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -14.3     -0.4722 ug/L       5.14911     -0.4722 ppb        5.14911 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -7.8     -0.0595 ug/L       0.31694     -0.0595 ppb        0.31694 532.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -41.0     -0.4445 ug/L       0.14861     -0.4445 ppb        0.14861  33.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     166.6      12.747 ug/L        1.5850      12.747 ppb         1.5850  12.43%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/4/2010 20:45:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4495.4	4495.4	94.7	%			20:48:01
1	Y RADIAL	5001.8	5001.8	99.24	%			20:47:41
1	Al 396.153Radial†	5295.5	5675.4	5173.3	ug/L	5173.3	ppb	20:47:41
1	Ca 317.933Radial†	2784.9	2923.0	5230.9	ug/L	5230.9	ppb	20:48:01
1	Fe 238.204 Radial†	466.7	485.7	5055.3	ug/L	5055.3	ppb	20:48:01
1	K 766.490 Radial†	28815.3	28127.1	5305.4	ug/L	5305.4	ppb	20:47:41
1	Mg 279.077 IEC†	130.9	136.1	5363.7	ug/L	5363.7	ppb	20:48:01
1	Na 589.592 Radial†	26602.4	28833.7	8773.8	ug/L	8773.8	ppb	20:47:41
1	Sr 421.552†	66002.8	69691.2	496.57	ug/L	496.57	ppb	20:47:41
1	Sc 361.383	811483.8	811483.8	102.61	%			20:48:58
1	Y 371.029	716325.5	716325.5	101.32	%			20:48:58
1	Ag 328.068†	101161.0	98407.5	497.38	ug/L	497.38	ppb	20:49:03
1	As 188.979†	1142.2	1141.7	500.58	ug/L	500.58	ppb	20:49:23
1	B 249.677†	20055.1	19768.4	489.40	ug/L	489.40	ppb	20:49:03
1	Ba 233.527†	43956.1	42840.4	498.04	ug/L	498.04	ppb	20:49:03
1	Be 313.107†	1281853.4	1258532.0	493.51	ug/L	493.51	ppb	20:48:58
1	Cd 226.502†	36790.9	36036.3	495.28	ug/L	495.28	ppb	20:49:03
1	Co 228.616†	16710.7	16349.4	486.47	ug/L	486.47	ppb	20:49:23
1	Cr 267.716†	38121.6	37089.3	495.16	ug/L	495.16	ppb	20:49:03
1	Cu 324.752†	145951.8	134510.1	496.12	ug/L	496.12	ppb	20:49:03
1	Mn 257.610†	324568.1	315869.6	496.53	ug/L	496.53	ppb	20:49:03
1	Mo 202.031†	5514.1	5361.6	485.20	ug/L	485.20	ppb	20:49:23
1	Ni 231.604†	16573.9	16071.2	495.87	ug/L	495.87	ppb	20:49:03
1	P 214.914†	4799.9	4478.8	2332.8	ug/L	2332.8	ppb	20:49:23
1	Pb 220.353†	3091.8	3070.5	489.26	ug/L	489.26	ppb	20:49:23
1	S 181.975 Axial†	841.7	779.3	967.03	ug/L	967.03	ppb	20:49:23
1	Sb 206.836†	1291.9	1226.1	498.02	ug/L	498.02	ppb	20:49:23
1	Se 196.026†	827.6	825.5	503.40	ug/L	503.40	ppb	20:49:23
1	Si 251.611†	72016.1	69630.4	2477.3	ug/L	2477.3	ppb	20:49:03
1	Sn 189.927†	2164.0	2095.8	479.61	ug/L	479.61	ppb	20:49:23
1	Ti 334.940†	254588.4	249437.8	494.03	ug/L	494.03	ppb	20:49:03
1	Tl 190.801†	1065.3	1073.9	490.25	ug/L	490.25	ppb	20:49:23
1	U 409.014†	12943.7	14982.6	495.11	ug/L	495.11	ppb	20:49:03
1	V 292.402†	63616.7	63655.4	500.78	ug/L	500.78	ppb	20:49:03
1	Zn 213.857†	48174.4	46149.9	491.30	ug/L	491.30	ppb	20:49:03
1	SiO2†	71188.1	68814.4	5252.7	ug/L	5252.7	ppb	20:50:30
2	Sc Radial	4486.9	4486.9	94.5	%			20:48:26
2	Y RADIAL	5015.6	5015.6	99.51	%			20:48:06
2	Al 396.153Radial†	5348.4	5742.0	5234.0	ug/L	5234.0	ppb	20:48:06
2	Ca 317.933Radial†	2784.4	2928.1	5240.0	ug/L	5240.0	ppb	20:48:26
2	Fe 238.204 Radial†	469.0	489.0	5089.8	ug/L	5089.8	ppb	20:48:26
2	K 766.490 Radial†	28982.3	28361.7	5349.6	ug/L	5349.6	ppb	20:48:06
2	Mg 279.077 IEC†	128.9	134.3	5291.0	ug/L	5291.0	ppb	20:48:26
2	Na 589.592 Radial†	26799.2	29095.4	8853.4	ug/L	8853.4	ppb	20:48:06
2	Sr 421.552†	66329.2	70169.2	499.98	ug/L	499.98	ppb	20:48:06
2	Sc 361.383	808478.5	808478.5	102.23	%			20:49:29
2	Y 371.029	713164.5	713164.5	100.87	%			20:49:29
2	Ag 328.068†	100003.9	97642.2	493.54	ug/L	493.54	ppb	20:49:34
2	As 188.979†	1134.7	1138.5	499.18	ug/L	499.18	ppb	20:49:54
2	B 249.677†	19813.3	19604.6	485.30	ug/L	485.30	ppb	20:49:34
2	Ba 233.527†	43603.5	42654.7	495.88	ug/L	495.88	ppb	20:49:34
2	Be 313.107†	1279752.2	1261120.3	494.51	ug/L	494.51	ppb	20:49:29
2	Cd 226.502†	36627.5	36009.8	494.91	ug/L	494.91	ppb	20:49:34
2	Co 228.616†	16854.1	16550.2	492.46	ug/L	492.46	ppb	20:49:54
2	Cr 267.716†	37887.0	36997.9	493.94	ug/L	493.94	ppb	20:49:34
2	Cu 324.752†	143970.3	133100.6	490.93	ug/L	490.93	ppb	20:49:34
2	Mn 257.610†	322171.1	314700.8	494.70	ug/L	494.70	ppb	20:49:34
2	Mo 202.031†	5557.2	5423.7	490.81	ug/L	490.81	ppb	20:49:54
2	Ni 231.604†	16507.0	16065.8	495.70	ug/L	495.70	ppb	20:49:34

2	P 214.914†	4858.1	4553.1	2374.2 ug/L	2374.2 ppb	20:49:54
2	Pb 220.353†	3123.4	3112.6	495.98 ug/L	495.98 ppb	20:49:54
2	S 181.975 Axial†	855.6	795.8	987.61 ug/L	987.61 ppb	20:49:54
2	Sb 206.836†	1311.7	1250.2	507.69 ug/L	507.69 ppb	20:49:54
2	Se 196.026†	837.0	837.6	510.69 ug/L	510.69 ppb	20:49:54
2	Si 251.611†	71472.4	69359.5	2467.6 ug/L	2467.6 ppb	20:49:34
2	Sn 189.927†	2191.7	2130.7	487.59 ug/L	487.59 ppb	20:49:54
2	Ti 334.940†	252170.0	247994.4	491.18 ug/L	491.18 ppb	20:49:34
2	Tl 190.801†	1080.7	1092.7	498.74 ug/L	498.74 ppb	20:49:54
2	U 409.014†	12683.8	14775.3	488.24 ug/L	488.24 ppb	20:49:34
2	V 292.402†	62990.0	63272.9	497.87 ug/L	497.87 ppb	20:49:34
2	Zn 213.857†	47781.8	45940.5	489.05 ug/L	489.05 ppb	20:49:34
2	SiO2†	71392.5	69272.2	5287.5 ug/L	5287.5 ppb	20:50:35
3	Sc Radial	4478.3	4478.3	94.3 %		20:48:51
3	Y RADIAL	4943.3	4943.3	98.08 %		20:48:31
3	Al 396.153Radial†	5281.8	5682.3	5179.5 ug/L	5179.5 ppb	20:48:31
3	Ca 317.933Radial†	2762.9	2911.0	5209.4 ug/L	5209.4 ppb	20:48:51
3	Fe 238.204 Radial†	469.2	490.2	5101.8 ug/L	5101.8 ppb	20:48:51
3	K 766.490 Radial†	28789.7	28216.3	5322.2 ug/L	5322.2 ppb	20:48:31
3	Mg 279.077 IEC†	128.6	134.3	5290.5 ug/L	5290.5 ppb	20:48:51
3	Na 589.592 Radial†	26349.1	28672.6	8724.7 ug/L	8724.7 ppb	20:48:31
3	Sr 421.552†	65522.3	69448.4	494.84 ug/L	494.84 ppb	20:48:31
3	Sc 361.383	813529.8	813529.8	102.87 %		20:50:00
3	Y 371.029	718397.9	718397.9	101.61 %		20:50:00
3	Ag 328.068†	100134.8	97162.1	491.12 ug/L	491.12 ppb	20:50:05
3	As 188.979†	1121.5	1118.8	490.60 ug/L	490.60 ppb	20:50:25
3	B 249.677†	19860.1	19529.7	483.46 ug/L	483.46 ppb	20:50:05
3	Ba 233.527†	43522.1	42310.7	491.89 ug/L	491.89 ppb	20:50:05
3	Be 313.107†	1289567.5	1262888.9	495.20 ug/L	495.20 ppb	20:50:00
3	Cd 226.502†	36636.2	35795.7	491.97 ug/L	491.97 ppb	20:50:05
3	Co 228.616†	16727.9	16325.2	485.76 ug/L	485.76 ppb	20:50:25
3	Cr 267.716†	37846.7	36728.6	490.35 ug/L	490.35 ppb	20:50:05
3	Cu 324.752†	143970.4	132226.3	487.71 ug/L	487.71 ppb	20:50:05
3	Mn 257.610†	321611.0	312199.6	490.77 ug/L	490.77 ppb	20:50:05
3	Mo 202.031†	5528.8	5362.4	485.27 ug/L	485.27 ppb	20:50:25
3	Ni 231.604†	16480.7	15940.0	491.82 ug/L	491.82 ppb	20:50:05
3	P 214.914†	4802.9	4470.0	2329.7 ug/L	2329.7 ppb	20:50:25
3	Pb 220.353†	3083.7	3055.1	486.82 ug/L	486.82 ppb	20:50:25
3	S 181.975 Axial†	845.1	780.4	968.49 ug/L	968.49 ppb	20:50:25
3	Sb 206.836†	1286.2	1217.4	494.61 ug/L	494.61 ppb	20:50:25
3	Se 196.026†	824.1	820.1	500.26 ug/L	500.26 ppb	20:50:25
3	Si 251.611†	71389.5	68844.8	2449.3 ug/L	2449.3 ppb	20:50:05
3	Sn 189.927†	2173.0	2099.3	480.40 ug/L	480.40 ppb	20:50:25
3	Ti 334.940†	252204.2	246496.2	488.21 ug/L	488.21 ppb	20:50:05
3	Tl 190.801†	1073.7	1079.4	492.69 ug/L	492.69 ppb	20:50:25
3	U 409.014†	12659.7	14674.8	484.91 ug/L	484.91 ppb	20:50:05
3	V 292.402†	63032.0	62931.1	495.13 ug/L	495.13 ppb	20:50:05
3	Zn 213.857†	47747.4	45616.8	485.60 ug/L	485.60 ppb	20:50:05
3	SiO2†	71547.3	68989.0	5266.0 ug/L	5266.0 ppb	20:50:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	811164.0	102.57	%	0.321				0.31%
Sc Radial	4486.8	94.5	%	0.18				0.19%
Y 371.029	715962.6	101.27	%	0.373				0.37%
Y RADIAL	4986.9	98.94	%	0.761				0.77%
Ag 328.068†	97737.3	494.01	ug/L	3.155	494.01	ppb	3.155	0.64%
QC value within limits for Ag 328.068 Recovery = 98.80%								
Al 396.153Radial†	5699.9	5195.6	ug/L	33.40	5195.6	ppb	33.40	0.64%
QC value within limits for Al 396.153Radial Recovery = 103.91%								
As 188.979†	1133.0	496.79	ug/L	5.403	496.79	ppb	5.403	1.09%
QC value within limits for As 188.979 Recovery = 99.36%								
B 249.677†	19634.3	486.05	ug/L	3.041	486.05	ppb	3.041	0.63%
QC value within limits for B 249.677 Recovery = 97.21%								
Ba 233.527†	42601.9	495.27	ug/L	3.122	495.27	ppb	3.122	0.63%
QC value within limits for Ba 233.527 Recovery = 99.05%								
Be 313.107†	1260847.1	494.40	ug/L	0.851	494.40	ppb	0.851	0.17%
QC value within limits for Be 313.107 Recovery = 98.88%								
Ca 317.933Radial†	2920.7	5226.7	ug/L	15.73	5226.7	ppb	15.73	0.30%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.53%
Cd 226.502†            35947.3      494.05 ug/L         1.817      494.05 ppb          1.817   0.37%
   QC value within limits for Cd 226.502  Recovery = 98.81%
Co 228.616†            16408.2      488.23 ug/L         3.682      488.23 ppb          3.682   0.75%
   QC value within limits for Co 228.616  Recovery = 97.65%
Cr 267.716†            36938.6      493.15 ug/L         2.502      493.15 ppb          2.502   0.51%
   QC value within limits for Cr 267.716  Recovery = 98.63%
Cu 324.752†           133279.0      491.58 ug/L         4.246      491.58 ppb          4.246   0.86%
   QC value within limits for Cu 324.752  Recovery = 98.32%
Fe 238.204 Radial†       488.3      5082.3 ug/L        24.13      5082.3 ppb         24.13   0.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.65%
K 766.490 Radial†      28235.1      5325.7 ug/L        22.34      5325.7 ppb         22.34   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 106.51%
Mg 279.077 IEC†          134.9      5315.1 ug/L        42.13      5315.1 ppb         42.13   0.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.30%
Mn 257.610†           314256.7      494.00 ug/L         2.942      494.00 ppb          2.942   0.60%
   QC value within limits for Mn 257.610  Recovery = 98.80%
Mo 202.031†             5382.6      487.09 ug/L         3.222      487.09 ppb          3.222   0.66%
   QC value within limits for Mo 202.031  Recovery = 97.42%
Na 589.592 Radial†     28867.2      8784.0 ug/L        64.92      8784.0 ppb         64.92   0.74%
   QC value less than the lower limit for Na 589.592 Radial  Recovery = 87.84%
Ni 231.604†            16025.7      494.46 ug/L         2.291      494.46 ppb          2.291   0.46%
   QC value within limits for Ni 231.604  Recovery = 98.89%
P 214.914†              4500.6      2345.6 ug/L        24.86      2345.6 ppb         24.86   1.06%
   QC value within limits for P 214.914  Recovery = 93.82%
Pb 220.353†             3079.4      490.69 ug/L         4.742      490.69 ppb          4.742   0.97%
   QC value within limits for Pb 220.353  Recovery = 98.14%
S 181.975 Axial†         785.2      974.37 ug/L        11.483      974.37 ppb         11.483   1.18%
   QC value within limits for S 181.975 Axial  Recovery = 97.44%
Sb 206.836†             1231.2      500.11 ug/L         6.783      500.11 ppb          6.783   1.36%
   QC value within limits for Sb 206.836  Recovery = 100.02%
Se 196.026†              827.7      504.78 ug/L         5.353      504.78 ppb          5.353   1.06%
   QC value within limits for Se 196.026  Recovery = 100.96%
Si 251.611†            69278.2      2464.7 ug/L        14.22      2464.7 ppb         14.22   0.58%
   QC value within limits for Si 251.611  Recovery = 98.59%
Sn 189.927†             2108.6      482.53 ug/L         4.399      482.53 ppb          4.399   0.91%
   QC value within limits for Sn 189.927  Recovery = 96.51%
Sr 421.552†            69769.6      497.13 ug/L         2.613      497.13 ppb          2.613   0.53%
   QC value within limits for Sr 421.552  Recovery = 99.43%
Ti 334.940†           247976.1      491.14 ug/L         2.909      491.14 ppb          2.909   0.59%
   QC value within limits for Ti 334.940  Recovery = 98.23%
Tl 190.801†             1082.0      493.89 ug/L         4.374      493.89 ppb          4.374   0.89%
   QC value within limits for Tl 190.801  Recovery = 98.78%
U 409.014†             14810.9      489.42 ug/L         5.202      489.42 ppb          5.202   1.06%
   QC value within limits for U 409.014  Recovery = 97.88%
V 292.402†             63286.5      497.93 ug/L         2.822      497.93 ppb          2.822   0.57%
   QC value within limits for V 292.402  Recovery = 99.59%
Zn 213.857†            45902.4      488.65 ug/L         2.870      488.65 ppb          2.870   0.59%
   QC value within limits for Zn 213.857  Recovery = 97.73%
SiO2†                  69025.2      5268.7 ug/L        17.60      5268.7 ppb         17.60   0.33%
   QC value within limits for SiO2  Recovery = 98.53%
QC Failed.  Continue with analysis.
```

Sequence No.: 22 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/4/2010 20:52:50**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4721.7	4721.7	99.4	%			20:54:42
1	Y RADIAL	5019.8	5019.8	99.60	%			20:54:42
1	Al 396.153Radial†	-84.7	-2.7	-2.4351	ug/L	-2.4351	ppb	20:55:02
1	Ca 317.933Radial†	23.5	5.4	9.5793	ug/L	9.5793	ppb	20:55:02
1	Fe 238.204 Radial†	8.7	1.4	14.906	ug/L	14.906	ppb	20:55:02
1	K 766.490 Radial†	2541.5	248.8	46.995	ug/L	46.995	ppb	20:54:42
1	Mg 279.077 IEC†	2.5	0.4	14.338	ug/L	14.338	ppb	20:55:02
1	Na 589.592 Radial†	-822.4	-89.9	-27.346	ug/L	-27.346	ppb	20:54:42
1	Sr 421.552†	52.9	34.3	0.2442	ug/L	0.2442	ppb	20:54:42
1	Sc 361.383	775745.1	775745.1	98.095	%			20:55:59
1	Y 371.029	694577.3	694577.3	98.244	%			20:55:59
1	Ag 328.068†	209.8	37.4	0.1940	ug/L	0.1940	ppb	20:55:59
1	As 188.979†	-30.4	-2.4	-1.0181	ug/L	-1.0181	ppb	20:56:19
1	B 249.677†	-145.8	75.6	1.8775	ug/L	1.8775	ppb	20:56:19
1	Ba 233.527†	5.7	9.8	0.1116	ug/L	0.1116	ppb	20:56:19
1	Be 313.107†	-9270.3	-117.8	-0.0460	ug/L	-0.0460	ppb	20:55:59
1	Cd 226.502†	-179.0	0.2	-0.0002	ug/L	-0.0002	ppb	20:56:19
1	Co 228.616†	-60.8	2.4	0.0702	ug/L	0.0702	ppb	20:56:19
1	Cr 267.716†	67.2	7.3	0.0990	ug/L	0.0990	ppb	20:56:19
1	Cu 324.752†	7755.0	181.9	0.6762	ug/L	0.6762	ppb	20:55:59
1	Mn 257.610†	479.6	58.4	0.0927	ug/L	0.0927	ppb	20:56:19
1	Mo 202.031†	8.6	-3.2	-0.2911	ug/L	-0.2911	ppb	20:56:19
1	Ni 231.604†	93.7	15.1	0.4650	ug/L	0.4650	ppb	20:56:19
1	P 214.914†	201.7	6.8	3.5495	ug/L	3.5495	ppb	20:56:19
1	Pb 220.353†	-65.2	-8.9	-1.4195	ug/L	-1.4195	ppb	20:56:19
1	S 181.975 Axial†	47.6	7.5	9.2972	ug/L	9.2972	ppb	20:56:19
1	Sb 206.836†	41.0	8.9	3.4771	ug/L	3.4771	ppb	20:56:19
1	Se 196.026†	-17.9	0.7	0.4341	ug/L	0.4341	ppb	20:56:19
1	Si 251.611†	756.2	219.7	7.8404	ug/L	7.8404	ppb	20:56:19
1	Sn 189.927†	11.2	-1.6	-0.3731	ug/L	-0.3731	ppb	20:56:19
1	Ti 334.940†	-1297.9	11.6	0.0268	ug/L	0.0268	ppb	20:55:59
1	Tl 190.801†	-24.6	10.7	4.8344	ug/L	4.8344	ppb	20:56:19
1	U 409.014†	-2569.3	-250.6	-8.3126	ug/L	-8.3126	ppb	20:55:59
1	V 292.402†	-1785.3	-160.6	-1.2695	ug/L	-1.2695	ppb	20:55:59
1	Zn 213.857†	766.7	-15.7	-0.1748	ug/L	-0.1748	ppb	20:56:19
1	SiO2†	744.2	198.3	15.184	ug/L	15.184	ppb	20:57:15
2	Sc Radial	4619.9	4619.9	97.3	%			20:55:07
2	Y RADIAL	4893.2	4893.2	97.08	%			20:55:07
2	Al 396.153Radial†	-85.3	-5.2	-4.7775	ug/L	-4.7775	ppb	20:55:27
2	Ca 317.933Radial†	22.5	4.9	8.7358	ug/L	8.7358	ppb	20:55:27
2	Fe 238.204 Radial†	8.3	1.2	12.743	ug/L	12.743	ppb	20:55:27
2	K 766.490 Radial†	2480.9	242.9	45.872	ug/L	45.872	ppb	20:55:07
2	Mg 279.077 IEC†	-0.2	-2.3	-92.292	ug/L	-92.292	ppb	20:55:27
2	Na 589.592 Radial†	-805.4	-90.7	-27.592	ug/L	-27.592	ppb	20:55:07
2	Sr 421.552†	25.5	7.3	0.0517	ug/L	0.0517	ppb	20:55:07
2	Sc 361.383	779871.4	779871.4	98.617	%			20:56:24
2	Y 371.029	697275.7	697275.7	98.626	%			20:56:24
2	Ag 328.068†	160.2	-14.0	-0.0648	ug/L	-0.0648	ppb	20:56:24
2	As 188.979†	-30.0	-1.8	-0.7854	ug/L	-0.7854	ppb	20:56:44
2	B 249.677†	-167.1	54.8	1.3586	ug/L	1.3586	ppb	20:56:44
2	Ba 233.527†	5.0	9.0	0.1034	ug/L	0.1034	ppb	20:56:44
2	Be 313.107†	-9268.7	-66.3	-0.0258	ug/L	-0.0258	ppb	20:56:24
2	Cd 226.502†	-180.1	-0.0	-0.0022	ug/L	-0.0022	ppb	20:56:44
2	Co 228.616†	-53.1	10.5	0.3136	ug/L	0.3136	ppb	20:56:44
2	Cr 267.716†	62.8	2.5	0.0348	ug/L	0.0348	ppb	20:56:44
2	Cu 324.752†	7753.2	138.2	0.5139	ug/L	0.5139	ppb	20:56:24
2	Mn 257.610†	464.8	40.8	0.0692	ug/L	0.0692	ppb	20:56:44
2	Mo 202.031†	13.0	1.2	0.1116	ug/L	0.1116	ppb	20:56:44
2	Ni 231.604†	99.9	20.8	0.6410	ug/L	0.6410	ppb	20:56:44

2	P 214.914†	206.7	10.8	5.7468	ug/L	5.7468	ppb	20:56:44
2	Pb 220.353†	-55.6	1.2	0.1827	ug/L	0.1827	ppb	20:56:44
2	S 181.975 Axial†	51.8	11.5	14.281	ug/L	14.281	ppb	20:56:44
2	Sb 206.836†	42.9	10.7	4.1810	ug/L	4.1810	ppb	20:56:44
2	Se 196.026†	-21.3	-2.6	-1.5064	ug/L	-1.5064	ppb	20:56:44
2	Si 251.611†	752.5	211.9	7.5547	ug/L	7.5547	ppb	20:56:44
2	Sn 189.927†	12.8	-0.1	-0.0269	ug/L	-0.0269	ppb	20:56:44
2	Ti 334.940†	-1287.2	29.5	0.0699	ug/L	0.0699	ppb	20:56:24
2	Tl 190.801†	-40.3	-5.2	-2.3467	ug/L	-2.3467	ppb	20:56:44
2	U 409.014†	-2519.7	-186.4	-6.1828	ug/L	-6.1828	ppb	20:56:24
2	V 292.402†	-1742.7	-107.8	-0.8509	ug/L	-0.8509	ppb	20:56:24
2	Zn 213.857†	773.5	-12.9	-0.1453	ug/L	-0.1453	ppb	20:56:44
2	SiO2†	754.1	204.4	15.637	ug/L	15.637	ppb	20:57:20
3	Sc Radial	4729.0	4729.0	99.6	%			20:55:32
3	Y RADIAL	5029.1	5029.1	99.78	%			20:55:32
3	Al 396.153Radial†	-78.5	3.7	3.3698	ug/L	3.3698	ppb	20:55:52
3	Ca 317.933Radial†	18.5	0.3	0.5211	ug/L	0.5211	ppb	20:55:52
3	Fe 238.204 Radial†	9.3	2.1	21.361	ug/L	21.361	ppb	20:55:52
3	K 766.490 Radial†	2657.9	361.7	68.320	ug/L	68.320	ppb	20:55:32
3	Mg 279.077 IEC†	4.3	2.2	86.056	ug/L	86.056	ppb	20:55:52
3	Na 589.592 Radial†	-826.3	-92.6	-28.166	ug/L	-28.166	ppb	20:55:32
3	Sr 421.552†	-21.2	-40.2	-0.2866	ug/L	-0.2866	ppb	20:55:32
3	Sc 361.383	782157.2	782157.2	98.906	%			20:56:50
3	Y 371.029	698268.0	698268.0	98.766	%			20:56:50
3	Ag 328.068†	164.5	-10.2	-0.0416	ug/L	-0.0416	ppb	20:56:50
3	As 188.979†	-30.8	-2.5	-1.0809	ug/L	-1.0809	ppb	20:57:10
3	B 249.677†	-154.8	67.7	1.6798	ug/L	1.6798	ppb	20:57:10
3	Ba 233.527†	17.0	21.2	0.2467	ug/L	0.2467	ppb	20:57:10
3	Be 313.107†	-9344.6	-115.5	-0.0453	ug/L	-0.0453	ppb	20:56:50
3	Cd 226.502†	-175.6	5.1	0.0674	ug/L	0.0674	ppb	20:57:10
3	Co 228.616†	-51.2	12.6	0.3765	ug/L	0.3765	ppb	20:57:10
3	Cr 267.716†	80.2	19.9	0.2668	ug/L	0.2668	ppb	20:57:10
3	Cu 324.752†	7744.4	106.4	0.3949	ug/L	0.3949	ppb	20:56:50
3	Mn 257.610†	470.4	45.2	0.0696	ug/L	0.0696	ppb	20:57:10
3	Mo 202.031†	18.4	6.6	0.5989	ug/L	0.5989	ppb	20:57:10
3	Ni 231.604†	100.9	21.5	0.6631	ug/L	0.6631	ppb	20:57:10
3	P 214.914†	192.3	-4.4	-2.4925	ug/L	-2.4925	ppb	20:57:10
3	Pb 220.353†	-76.6	-19.9	-3.1606	ug/L	-3.1606	ppb	20:57:10
3	S 181.975 Axial†	47.0	6.5	8.0810	ug/L	8.0810	ppb	20:57:10
3	Sb 206.836†	42.6	10.2	4.0104	ug/L	4.0104	ppb	20:57:10
3	Se 196.026†	-24.6	-5.9	-3.4625	ug/L	-3.4625	ppb	20:57:10
3	Si 251.611†	735.8	192.8	6.8694	ug/L	6.8694	ppb	20:57:10
3	Sn 189.927†	11.4	-1.5	-0.3540	ug/L	-0.3540	ppb	20:57:10
3	Ti 334.940†	-1344.5	-24.6	-0.0546	ug/L	-0.0546	ppb	20:56:50
3	Tl 190.801†	-29.0	6.3	2.8705	ug/L	2.8705	ppb	20:57:10
3	U 409.014†	-2424.1	-82.3	-2.7313	ug/L	-2.7313	ppb	20:56:50
3	V 292.402†	-1619.2	22.2	0.1743	ug/L	0.1743	ppb	20:56:50
3	Zn 213.857†	785.5	-3.1	-0.0409	ug/L	-0.0409	ppb	20:57:10
3	SiO2†	792.2	240.6	18.397	ug/L	18.397	ppb	20:57:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	779257.9	98.539	%	0.4109				0.42%
Sc Radial	4690.2	98.8	%	1.28				1.30%
Y 371.029	696707.0	98.545	%	0.2702				0.27%
Y RADIAL	4980.7	98.82	%	1.506				1.52%
Ag 328.068†	4.4	0.0292	ug/L	0.14318	0.0292	ppb	0.14318	490.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.4	-1.2809	ug/L	4.19450	-1.2809	ppb	4.19450	327.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.2	-0.9615	ug/L	0.15567	-0.9615	ppb	0.15567	16.19%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.0	1.6386	ug/L	0.26189	1.6386	ppb	0.26189	15.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.4	0.1539	ug/L	0.08045	0.1539	ppb	0.08045	52.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-99.9	-0.0390	ug/L	0.01148	-0.0390	ppb	0.01148	29.41%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	6.2788	ug/L	5.00405	6.2788	ppb	5.00405	79.70%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                1.8      0.0217 ug/L       0.03964      0.0217 ppb        0.03964 182.87%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                8.5      0.2534 ug/L       0.16174      0.2534 ppb        0.16174  63.82%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                9.9      0.1335 ug/L       0.11978      0.1335 ppb        0.11978  89.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              142.1      0.5283 ug/L       0.14117      0.5283 ppb        0.14117  26.72%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.6      16.337 ug/L        4.4833      16.337 ppb         4.4833  27.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        284.5      53.729 ug/L       12.6486      53.729 ppb        12.6486  23.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.1      2.7004 ug/L      89.74170      2.7004 ppb       89.74170 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               48.1      0.0771 ug/L       0.01343      0.0771 ppb        0.01343  17.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.5      0.1398 ug/L       0.44569      0.1398 ppb        0.44569 318.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -91.0     -27.702 ug/L        0.4209     -27.702 ppb         0.4209   1.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               19.1      0.5897 ug/L       0.10856      0.5897 ppb        0.10856  18.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 4.4      2.2679 ug/L       4.26656      2.2679 ppb        4.26656 188.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.2     -1.4658 ug/L       1.67212     -1.4658 ppb        1.67212 114.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           8.5      10.553 ug/L        3.2852      10.553 ppb         3.2852  31.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                9.9      3.8895 ug/L       0.36720      3.8895 ppb        0.36720   9.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.6     -1.5116 ug/L       1.94832     -1.5116 ppb        1.94832 128.89%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              208.1      7.4215 ug/L       0.49904      7.4215 ppb        0.49904   6.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.1     -0.2513 ug/L       0.19457     -0.2513 ppb        0.19457  77.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                0.4      0.0031 ug/L       0.26871      0.0031 ppb        0.26871 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                5.5      0.0140 ug/L       0.06322      0.0140 ppb        0.06322 450.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.9      1.7861 ug/L       3.71134      1.7861 ppb        3.71134 207.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -173.1     -5.7422 ug/L       2.81658     -5.7422 ppb        2.81658  49.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -82.1     -0.6487 ug/L       0.74282     -0.6487 ppb        0.74282 114.51%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -10.6     -0.1203 ug/L       0.07035     -0.1203 ppb        0.07035  58.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    214.4      16.406 ug/L        1.7390      16.406 ppb         1.7390  10.60%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/4/2010 21:48:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4690.6	4690.6	98.8	%			21:50:10
1	Y RADIAL	4939.0	4939.0	97.99	%			21:50:10
1	Al 396.153Radial†	5276.9	5423.8	4942.0	ug/L	4942.0	ppb	21:50:10
1	Ca 317.933Radial†	2845.6	2862.1	5121.8	ug/L	5121.8	ppb	21:50:30
1	Fe 238.204 Radial†	490.2	488.9	5089.3	ug/L	5089.3	ppb	21:50:30
1	K 766.490 Radial†	28891.3	26937.5	5080.6	ug/L	5080.6	ppb	21:50:10
1	Mg 279.077 IEC†	132.9	132.4	5217.5	ug/L	5217.5	ppb	21:50:30
1	Na 589.592 Radial†	28856.9	29946.5	9112.4	ug/L	9112.4	ppb	21:50:10
1	Sr 421.552†	68281.1	69096.4	492.33	ug/L	492.33	ppb	21:50:10
1	Sc 361.383	795201.0	795201.0	100.55	%			21:51:29
1	Y 371.029	701743.7	701743.7	99.258	%			21:51:29
1	Ag 328.068†	100186.0	99456.6	502.69	ug/L	502.69	ppb	21:51:29
1	As 188.979†	1133.7	1156.0	506.93	ug/L	506.93	ppb	21:51:49
1	B 249.677†	19564.3	19680.6	487.13	ug/L	487.13	ppb	21:51:29
1	Ba 233.527†	43875.9	43637.8	507.31	ug/L	507.31	ppb	21:51:29
1	Be 313.107†	1289649.7	1291864.3	506.59	ug/L	506.59	ppb	21:51:29
1	Cd 226.502†	36062.1	36045.7	495.41	ug/L	495.41	ppb	21:51:49
1	Co 228.616†	17268.5	17237.5	512.90	ug/L	512.90	ppb	21:51:49
1	Cr 267.716†	37932.7	37662.1	502.81	ug/L	502.81	ppb	21:51:29
1	Cu 324.752†	145313.6	136787.8	504.53	ug/L	504.53	ppb	21:51:29
1	Mn 257.610†	328662.4	326418.0	513.11	ug/L	513.11	ppb	21:51:29
1	Mo 202.031†	5605.3	5562.4	503.35	ug/L	503.35	ppb	21:51:49
1	Ni 231.604†	16467.6	16296.2	502.80	ug/L	502.80	ppb	21:51:49
1	P 214.914†	4867.0	4641.3	2419.4	ug/L	2419.4	ppb	21:51:49
1	Pb 220.353†	3139.9	3180.1	506.63	ug/L	506.63	ppb	21:51:49
1	S 181.975 Axial†	853.2	807.5	1002.1	ug/L	1002.1	ppb	21:51:49
1	Sb 206.836†	1292.1	1252.1	508.83	ug/L	508.83	ppb	21:51:49
1	Se 196.026†	824.7	839.1	511.59	ug/L	511.59	ppb	21:51:49
1	Si 251.611†	71421.3	70475.9	2507.2	ug/L	2507.2	ppb	21:51:29
1	Sn 189.927†	2196.7	2171.5	496.90	ug/L	496.90	ppb	21:51:49
1	Ti 334.940†	258590.5	258498.1	511.98	ug/L	511.98	ppb	21:51:29
1	Tl 190.801†	1079.4	1109.2	506.34	ug/L	506.34	ppb	21:51:49
1	U 409.014†	12223.8	14524.9	479.92	ug/L	479.92	ppb	21:51:29
1	V 292.402†	63160.2	64471.0	507.31	ug/L	507.31	ppb	21:51:29
1	Zn 213.857†	47998.0	46935.8	499.68	ug/L	499.68	ppb	21:51:29
1	SiO2†	71740.1	70783.8	5402.9	ug/L	5402.9	ppb	21:52:49
2	Sc Radial	4695.9	4695.9	98.9	%			21:50:35
2	Y RADIAL	4957.3	4957.3	98.36	%			21:50:35
2	Al 396.153Radial†	5384.5	5526.6	5036.0	ug/L	5036.0	ppb	21:50:35
2	Ca 317.933Radial†	2832.0	2845.1	5091.5	ug/L	5091.5	ppb	21:50:55
2	Fe 238.204 Radial†	490.8	489.0	5090.4	ug/L	5090.4	ppb	21:50:55
2	K 766.490 Radial†	29047.9	27062.8	5104.3	ug/L	5104.3	ppb	21:50:35
2	Mg 279.077 IEC†	132.7	132.1	5204.7	ug/L	5204.7	ppb	21:50:55
2	Na 589.592 Radial†	28936.6	29994.1	9126.8	ug/L	9126.8	ppb	21:50:35
2	Sr 421.552†	68918.4	69662.7	496.37	ug/L	496.37	ppb	21:50:35
2	Sc 361.383	792050.2	792050.2	100.16	%			21:51:56
2	Y 371.029	699866.6	699866.6	98.992	%			21:51:56
2	Ag 328.068†	99632.3	99300.1	501.91	ug/L	501.91	ppb	21:51:56
2	As 188.979†	1134.3	1161.2	509.15	ug/L	509.15	ppb	21:52:16
2	B 249.677†	19511.5	19705.2	487.74	ug/L	487.74	ppb	21:51:56
2	Ba 233.527†	43492.7	43428.8	504.88	ug/L	504.88	ppb	21:51:56
2	Be 313.107†	1283850.6	1291176.2	506.31	ug/L	506.31	ppb	21:51:56
2	Cd 226.502†	35990.0	36116.4	496.38	ug/L	496.38	ppb	21:52:16
2	Co 228.616†	17238.3	17275.7	514.04	ug/L	514.04	ppb	21:52:16
2	Cr 267.716†	37764.8	37644.5	502.58	ug/L	502.58	ppb	21:51:56
2	Cu 324.752†	144542.1	136592.5	503.81	ug/L	503.81	ppb	21:51:56
2	Mn 257.610†	325930.6	324990.7	510.87	ug/L	510.87	ppb	21:51:56
2	Mo 202.031†	5609.5	5588.7	505.73	ug/L	505.73	ppb	21:52:16
2	Ni 231.604†	16432.1	16326.0	503.72	ug/L	503.72	ppb	21:52:16

2	P 214.914†	4863.0	4656.6	2427.8 ug/L	2427.8 ppb	21:52:16
2	Pb 220.353†	3126.2	3178.8	506.46 ug/L	506.46 ppb	21:52:16
2	S 181.975 Axial†	843.3	800.9	993.93 ug/L	993.93 ppb	21:52:16
2	Sb 206.836†	1291.6	1256.8	510.69 ug/L	510.69 ppb	21:52:16
2	Se 196.026†	830.3	848.0	516.86 ug/L	516.86 ppb	21:52:16
2	Si 251.611†	70904.5	70242.5	2498.9 ug/L	2498.9 ppb	21:51:56
2	Sn 189.927†	2184.9	2168.4	496.18 ug/L	496.18 ppb	21:52:16
2	Ti 334.940†	256782.7	257716.1	510.43 ug/L	510.43 ppb	21:51:56
2	Tl 190.801†	1076.6	1110.6	506.99 ug/L	506.99 ppb	21:52:16
2	U 409.014†	11997.1	14346.9	474.01 ug/L	474.01 ppb	21:51:56
2	V 292.402†	62819.3	64380.5	506.63 ug/L	506.63 ppb	21:51:56
2	Zn 213.857†	47533.4	46661.8	496.73 ug/L	496.73 ppb	21:51:56
2	SiO2†	71398.1	70726.2	5398.4 ug/L	5398.4 ppb	21:52:54
3	Sc Radial	4760.9	4760.9	100 %		21:51:00
3	Y RADIAL	5004.3	5004.3	99.29 %		21:51:00
3	Al 396.153Radial†	5428.6	5496.3	5008.4 ug/L	5008.4 ppb	21:51:00
3	Ca 317.933Radial†	2818.5	2792.6	4997.4 ug/L	4997.4 ppb	21:51:20
3	Fe 238.204 Radial†	487.6	479.0	4986.5 ug/L	4986.5 ppb	21:51:20
3	K 766.490 Radial†	29437.7	27050.8	5102.0 ug/L	5102.0 ppb	21:51:00
3	Mg 279.077 IEC†	133.2	130.7	5150.6 ug/L	5150.6 ppb	21:51:20
3	Na 589.592 Radial†	29230.4	29887.9	9094.5 ug/L	9094.5 ppb	21:51:00
3	Sr 421.552†	69794.5	69585.6	495.82 ug/L	495.82 ppb	21:51:00
3	Sc 361.383	793700.4	793700.4	100.37 %		21:52:23
3	Y 371.029	701433.9	701433.9	99.214 %		21:52:23
3	Ag 328.068†	99813.0	99273.3	501.74 ug/L	501.74 ppb	21:52:23
3	As 188.979†	1129.9	1154.4	506.18 ug/L	506.18 ppb	21:52:43
3	B 249.677†	19586.6	19739.5	488.62 ug/L	488.62 ppb	21:52:23
3	Ba 233.527†	43727.4	43572.3	506.54 ug/L	506.54 ppb	21:52:23
3	Be 313.107†	1287268.0	1291916.0	506.61 ug/L	506.61 ppb	21:52:23
3	Cd 226.502†	36038.0	36089.5	496.02 ug/L	496.02 ppb	21:52:43
3	Co 228.616†	17241.5	17243.1	513.07 ug/L	513.07 ppb	21:52:43
3	Cr 267.716†	37820.9	37622.0	502.28 ug/L	502.28 ppb	21:52:23
3	Cu 324.752†	145251.8	136999.5	505.31 ug/L	505.31 ppb	21:52:23
3	Mn 257.610†	327389.3	325767.4	512.08 ug/L	512.08 ppb	21:52:23
3	Mo 202.031†	5601.2	5568.8	503.92 ug/L	503.92 ppb	21:52:43
3	Ni 231.604†	16458.4	16318.0	503.48 ug/L	503.48 ppb	21:52:43
3	P 214.914†	4854.2	4637.7	2417.3 ug/L	2417.3 ppb	21:52:43
3	Pb 220.353†	3118.8	3165.0	504.26 ug/L	504.26 ppb	21:52:43
3	S 181.975 Axial†	852.0	807.8	1002.5 ug/L	1002.5 ppb	21:52:43
3	Sb 206.836†	1282.7	1245.2	506.12 ug/L	506.12 ppb	21:52:43
3	Se 196.026†	836.4	852.3	519.17 ug/L	519.17 ppb	21:52:43
3	Si 251.611†	71228.9	70418.5	2505.2 ug/L	2505.2 ppb	21:52:23
3	Sn 189.927†	2187.7	2166.6	495.76 ug/L	495.76 ppb	21:52:43
3	Ti 334.940†	257885.8	258282.1	511.54 ug/L	511.54 ppb	21:52:23
3	Tl 190.801†	1086.1	1117.8	510.27 ug/L	510.27 ppb	21:52:43
3	U 409.014†	12262.7	14586.7	481.98 ug/L	481.98 ppb	21:52:23
3	V 292.402†	63113.3	64543.0	507.89 ug/L	507.89 ppb	21:52:23
3	Zn 213.857†	47660.5	46689.8	497.05 ug/L	497.05 ppb	21:52:23
3	SiO2†	71453.3	70632.9	5391.3 ug/L	5391.3 ppb	21:52:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	793650.5	100.36	%	0.199				0.20%
Sc Radial	4715.8	99.3	%	0.82				0.83%
Y 371.029	701014.8	99.155	%	0.1423				0.14%
Y RADIAL	4966.9	98.55	%	0.668				0.68%
Ag 328.068†	99343.3	502.12	ug/L	0.507	502.12	ppb	0.507	0.10%
QC value within limits for Ag 328.068 Recovery = 100.42%								
Al 396.153Radial†	5482.2	4995.4	ug/L	48.32	4995.4	ppb	48.32	0.97%
QC value within limits for Al 396.153Radial Recovery = 99.91%								
As 188.979†	1157.2	507.42	ug/L	1.543	507.42	ppb	1.543	0.30%
QC value within limits for As 188.979 Recovery = 101.48%								
B 249.677†	19708.4	487.83	ug/L	0.745	487.83	ppb	0.745	0.15%
QC value within limits for B 249.677 Recovery = 97.57%								
Ba 233.527†	43546.3	506.24	ug/L	1.240	506.24	ppb	1.240	0.25%
QC value within limits for Ba 233.527 Recovery = 101.25%								
Be 313.107†	1291652.2	506.50	ug/L	0.163	506.50	ppb	0.163	0.03%
QC value within limits for Be 313.107 Recovery = 101.30%								
Ca 317.933Radial†	2833.3	5070.2	ug/L	64.89	5070.2	ppb	64.89	1.28%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.40%
Cd 226.502†            36083.8      495.94 ug/L         0.491      495.94 ppb          0.491   0.10%
   QC value within limits for Cd 226.502  Recovery = 99.19%
Co 228.616†            17252.1      513.33 ug/L         0.617      513.33 ppb          0.617   0.12%
   QC value within limits for Co 228.616  Recovery = 102.67%
Cr 267.716†            37642.9      502.56 ug/L         0.269      502.56 ppb          0.269   0.05%
   QC value within limits for Cr 267.716  Recovery = 100.51%
Cu 324.752†           136793.2      504.55 ug/L         0.746      504.55 ppb          0.746   0.15%
   QC value within limits for Cu 324.752  Recovery = 100.91%
Fe 238.204 Radial†       485.6      5055.4 ug/L         59.70      5055.4 ppb          59.70   1.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.11%
K 766.490 Radial†      27017.1      5095.6 ug/L         13.07      5095.6 ppb          13.07   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 101.91%
Mg 279.077 IEC†          131.7      5191.0 ug/L         35.51      5191.0 ppb          35.51   0.68%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.82%
Mn 257.610†           325725.4      512.02 ug/L         1.122      512.02 ppb          1.122   0.22%
   QC value within limits for Mn 257.610  Recovery = 102.40%
Mo 202.031†             5573.3      504.33 ug/L         1.242      504.33 ppb          1.242   0.25%
   QC value within limits for Mo 202.031  Recovery = 100.87%
Na 589.592 Radial†     29942.8      9111.2 ug/L         16.18      9111.2 ppb          16.18   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 91.11%
Ni 231.604†            16313.4      503.33 ug/L         0.475      503.33 ppb          0.475   0.09%
   QC value within limits for Ni 231.604  Recovery = 100.67%
P 214.914†              4645.2      2421.5 ug/L          5.57      2421.5 ppb           5.57   0.23%
   QC value within limits for P 214.914  Recovery = 96.86%
Pb 220.353†             3174.6      505.78 ug/L         1.323      505.78 ppb          1.323   0.26%
   QC value within limits for Pb 220.353  Recovery = 101.16%
S 181.975 Axial†         805.4      999.54 ug/L         4.861      999.54 ppb          4.861   0.49%
   QC value within limits for S 181.975 Axial  Recovery = 99.95%
Sb 206.836†             1251.4      508.54 ug/L         2.297      508.54 ppb          2.297   0.45%
   QC value within limits for Sb 206.836  Recovery = 101.71%
Se 196.026†              846.5      515.87 ug/L         3.883      515.87 ppb          3.883   0.75%
   QC value within limits for Se 196.026  Recovery = 103.17%
Si 251.611†            70379.0      2503.8 ug/L          4.35      2503.8 ppb           4.35   0.17%
   QC value within limits for Si 251.611  Recovery = 100.15%
Sn 189.927†             2168.9      496.28 ug/L         0.575      496.28 ppb          0.575   0.12%
   QC value within limits for Sn 189.927  Recovery = 99.26%
Sr 421.552†            69448.2      494.84 ug/L         2.189      494.84 ppb          2.189   0.44%
   QC value within limits for Sr 421.552  Recovery = 98.97%
Ti 334.940†           258165.4      511.32 ug/L         0.799      511.32 ppb          0.799   0.16%
   QC value within limits for Ti 334.940  Recovery = 102.26%
Tl 190.801†             1112.6      507.87 ug/L         2.106      507.87 ppb          2.106   0.41%
   QC value within limits for Tl 190.801  Recovery = 101.57%
U 409.014†             14486.2      478.64 ug/L         4.132      478.64 ppb          4.132   0.86%
   QC value within limits for U 409.014  Recovery = 95.73%
V 292.402†             64464.8      507.28 ug/L         0.633      507.28 ppb          0.633   0.12%
   QC value within limits for V 292.402  Recovery = 101.46%
Zn 213.857†            46762.4      497.82 ug/L         1.619      497.82 ppb          1.619   0.33%
   QC value within limits for Zn 213.857  Recovery = 99.56%
SiO2†                  70714.3      5397.5 ug/L          5.83      5397.5 ppb           5.83   0.11%
   QC value within limits for SiO2  Recovery = 100.94%
All analyte(s) passed QC.
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Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/4/2010 21:55:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4797.2	4797.2	101	%			21:57:01
1	Y RADIAL	5118.5	5118.5	101.6	%			21:57:01
1	Al 396.153Radial†	-87.2	-3.8	-3.5049	ug/L	-3.5049	ppb	21:57:21
1	Ca 317.933Radial†	22.8	4.4	7.7848	ug/L	7.7848	ppb	21:57:21
1	Fe 238.204 Radial†	6.8	-0.5	-5.6695	ug/L	-5.6695	ppb	21:57:21
1	K 766.490 Radial†	2466.1	134.1	25.321	ug/L	25.321	ppb	21:57:01
1	Mg 279.077 IEC†	2.2	0.0	0.9317	ug/L	0.9317	ppb	21:57:21
1	Na 589.592 Radial†	-814.4	-69.0	-20.988	ug/L	-20.988	ppb	21:57:01
1	Sr 421.552†	16.0	-3.1	-0.0221	ug/L	-0.0221	ppb	21:57:01
1	Sc 361.383	796247.1	796247.1	100.69	%			21:58:18
1	Y 371.029	710893.0	710893.0	100.55	%			21:58:18
1	Ag 328.068†	197.2	19.4	0.0946	ug/L	0.0946	ppb	21:58:18
1	As 188.979†	-34.9	-6.0	-2.6262	ug/L	-2.6262	ppb	21:58:38
1	B 249.677†	-338.3	-111.7	-2.7778	ug/L	-2.7778	ppb	21:58:38
1	Ba 233.527†	-3.3	0.8	0.0082	ug/L	0.0082	ppb	21:58:38
1	Be 313.107†	-9360.9	35.5	0.0140	ug/L	0.0140	ppb	21:58:18
1	Cd 226.502†	-178.4	5.4	0.0755	ug/L	0.0755	ppb	21:58:38
1	Co 228.616†	-59.8	5.0	0.1485	ug/L	0.1485	ppb	21:58:38
1	Cr 267.716†	56.3	-5.3	-0.0711	ug/L	-0.0711	ppb	21:58:38
1	Cu 324.752†	7775.0	-1.8	-0.0071	ug/L	-0.0071	ppb	21:58:18
1	Mn 257.610†	456.0	22.4	0.0347	ug/L	0.0347	ppb	21:58:38
1	Mo 202.031†	11.1	-1.0	-0.0890	ug/L	-0.0890	ppb	21:58:38
1	Ni 231.604†	78.4	-2.6	-0.0814	ug/L	-0.0814	ppb	21:58:38
1	P 214.914†	213.1	12.8	6.9746	ug/L	6.9746	ppb	21:58:38
1	Pb 220.353†	-74.8	-16.8	-2.6596	ug/L	-2.6596	ppb	21:58:38
1	S 181.975 Axial†	43.4	2.0	2.5194	ug/L	2.5194	ppb	21:58:38
1	Sb 206.836†	42.0	8.9	3.4839	ug/L	3.4839	ppb	21:58:38
1	Se 196.026†	-23.6	-4.4	-2.6426	ug/L	-2.6426	ppb	21:58:38
1	Si 251.611†	640.7	85.1	3.0375	ug/L	3.0375	ppb	21:58:38
1	Sn 189.927†	14.8	1.6	0.3719	ug/L	0.3719	ppb	21:58:38
1	Ti 334.940†	-1327.5	16.3	0.0330	ug/L	0.0330	ppb	21:58:18
1	Tl 190.801†	-31.9	4.0	1.8091	ug/L	1.8091	ppb	21:58:38
1	U 409.014†	-2365.7	19.1	0.6330	ug/L	0.6330	ppb	21:58:18
1	V 292.402†	-1690.0	-19.2	-0.1480	ug/L	-0.1480	ppb	21:58:18
1	Zn 213.857†	757.5	-44.9	-0.4815	ug/L	-0.4815	ppb	21:58:38
1	SiO2†	637.1	72.4	5.5408	ug/L	5.5408	ppb	21:59:34
2	Sc Radial	4788.5	4788.5	101	%			21:57:26
2	Y RADIAL	5092.7	5092.7	101.0	%			21:57:26
2	Al 396.153Radial†	-85.0	-1.8	-1.7215	ug/L	-1.7215	ppb	21:57:46
2	Ca 317.933Radial†	23.8	5.3	9.5611	ug/L	9.5611	ppb	21:57:46
2	Fe 238.204 Radial†	7.5	0.2	2.0118	ug/L	2.0118	ppb	21:57:46
2	K 766.490 Radial†	2538.0	209.8	39.615	ug/L	39.615	ppb	21:57:26
2	Mg 279.077 IEC†	0.6	-1.5	-60.105	ug/L	-60.105	ppb	21:57:46
2	Na 589.592 Radial†	-834.8	-90.6	-27.578	ug/L	-27.578	ppb	21:57:26
2	Sr 421.552†	23.8	4.6	0.0330	ug/L	0.0330	ppb	21:57:26
2	Sc 361.383	809944.7	809944.7	102.42	%			21:58:43
2	Y 371.029	722098.7	722098.7	102.14	%			21:58:43
2	Ag 328.068†	214.9	33.3	0.1648	ug/L	0.1648	ppb	21:58:43
2	As 188.979†	-21.2	7.9	3.4370	ug/L	3.4370	ppb	21:59:03
2	B 249.677†	-331.5	-99.4	-2.4734	ug/L	-2.4734	ppb	21:59:03
2	Ba 233.527†	0.6	4.7	0.0537	ug/L	0.0537	ppb	21:59:03
2	Be 313.107†	-9476.2	80.2	0.0321	ug/L	0.0321	ppb	21:58:43
2	Cd 226.502†	-167.1	19.4	0.2681	ug/L	0.2681	ppb	21:59:03
2	Co 228.616†	-54.3	11.4	0.3388	ug/L	0.3388	ppb	21:59:03
2	Cr 267.716†	97.4	33.9	0.4508	ug/L	0.4508	ppb	21:59:03
2	Cu 324.752†	7996.0	83.4	0.3060	ug/L	0.3060	ppb	21:58:43
2	Mn 257.610†	477.6	35.9	0.0590	ug/L	0.0590	ppb	21:59:03
2	Mo 202.031†	21.4	9.0	0.8105	ug/L	0.8105	ppb	21:59:03
2	Ni 231.604†	111.8	28.6	0.8842	ug/L	0.8842	ppb	21:59:03

2	P 214.914†	201.7	-1.9	-1.1125	ug/L	-1.1125	ppb	21:59:03
2	Pb 220.353†	-76.2	-16.9	-2.6859	ug/L	-2.6859	ppb	21:59:03
2	S 181.975 Axial†	51.4	9.2	11.399	ug/L	11.399	ppb	21:59:03
2	Sb 206.836†	36.2	2.5	0.9897	ug/L	0.9897	ppb	21:59:03
2	Se 196.026†	-10.4	8.9	5.2669	ug/L	5.2669	ppb	21:59:03
2	Si 251.611†	661.7	94.9	3.3749	ug/L	3.3749	ppb	21:59:03
2	Sn 189.927†	12.6	-0.8	-0.1817	ug/L	-0.1817	ppb	21:59:03
2	Ti 334.940†	-1189.5	173.3	0.3480	ug/L	0.3480	ppb	21:58:43
2	Tl 190.801†	-33.8	2.7	1.2116	ug/L	1.2116	ppb	21:59:03
2	U 409.014†	-2327.7	95.9	3.1797	ug/L	3.1797	ppb	21:58:43
2	V 292.402†	-1716.5	-16.6	-0.1136	ug/L	-0.1136	ppb	21:58:43
2	Zn 213.857†	763.1	-52.2	-0.5672	ug/L	-0.5672	ppb	21:59:03
2	SiO2†	668.1	92.0	7.0187	ug/L	7.0187	ppb	21:59:39
3	Sc Radial	4907.5	4907.5	103	%			21:57:51
3	Y RADIAL	5206.2	5206.2	103.3	%			21:57:51
3	Al 396.153Radial†	-73.8	11.1	10.148	ug/L	10.148	ppb	21:58:11
3	Ca 317.933Radial†	24.0	5.0	8.8947	ug/L	8.8947	ppb	21:58:11
3	Fe 238.204 Radial†	6.9	-0.6	-6.2760	ug/L	-6.2760	ppb	21:58:11
3	K 766.490 Radial†	2443.2	57.0	10.779	ug/L	10.779	ppb	21:57:51
3	Mg 279.077 IEC†	3.6	1.4	54.447	ug/L	54.447	ppb	21:58:11
3	Na 589.592 Radial†	-871.1	-105.7	-32.150	ug/L	-32.150	ppb	21:57:51
3	Sr 421.552†	23.8	4.1	0.0291	ug/L	0.0291	ppb	21:57:51
3	Sc 361.383	806637.1	806637.1	102.00	%			21:59:09
3	Y 371.029	719768.0	719768.0	101.81	%			21:59:09
3	Ag 328.068†	189.0	8.8	0.0399	ug/L	0.0399	ppb	21:59:09
3	As 188.979†	-26.0	3.1	1.3564	ug/L	1.3564	ppb	21:59:29
3	B 249.677†	-344.2	-113.2	-2.8135	ug/L	-2.8135	ppb	21:59:29
3	Ba 233.527†	5.5	9.4	0.1089	ug/L	0.1089	ppb	21:59:29
3	Be 313.107†	-9329.8	185.7	0.0733	ug/L	0.0733	ppb	21:59:09
3	Cd 226.502†	-168.4	17.5	0.2420	ug/L	0.2420	ppb	21:59:29
3	Co 228.616†	-59.7	5.8	0.1732	ug/L	0.1732	ppb	21:59:29
3	Cr 267.716†	48.6	-13.6	-0.1828	ug/L	-0.1828	ppb	21:59:29
3	Cu 324.752†	8068.9	186.8	0.6869	ug/L	0.6869	ppb	21:59:09
3	Mn 257.610†	492.2	52.1	0.0790	ug/L	0.0790	ppb	21:59:29
3	Mo 202.031†	12.7	0.4	0.0384	ug/L	0.0384	ppb	21:59:29
3	Ni 231.604†	95.6	13.2	0.4085	ug/L	0.4085	ppb	21:59:29
3	P 214.914†	211.2	8.2	4.3006	ug/L	4.3006	ppb	21:59:29
3	Pb 220.353†	-74.6	-15.7	-2.4829	ug/L	-2.4829	ppb	21:59:29
3	S 181.975 Axial†	44.8	2.9	3.5862	ug/L	3.5862	ppb	21:59:29
3	Sb 206.836†	37.9	4.3	1.6520	ug/L	1.6520	ppb	21:59:29
3	Se 196.026†	-21.2	-1.8	-1.0974	ug/L	-1.0974	ppb	21:59:29
3	Si 251.611†	647.0	83.2	2.9653	ug/L	2.9653	ppb	21:59:29
3	Sn 189.927†	7.6	-5.6	-1.2850	ug/L	-1.2850	ppb	21:59:29
3	Ti 334.940†	-1220.3	138.4	0.2696	ug/L	0.2696	ppb	21:59:09
3	Tl 190.801†	-33.6	2.8	1.2644	ug/L	1.2644	ppb	21:59:29
3	U 409.014†	-2311.9	102.1	3.3861	ug/L	3.3861	ppb	21:59:09
3	V 292.402†	-1672.4	19.7	0.1619	ug/L	0.1619	ppb	21:59:09
3	Zn 213.857†	760.1	-52.1	-0.5623	ug/L	-0.5623	ppb	21:59:29
3	SiO2†	640.9	68.0	5.2043	ug/L	5.2043	ppb	21:59:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	804276.3	101.70	%	0.904				0.89%
Sc Radial	4831.1	102	%	1.4				1.37%
Y 371.029	717586.6	101.50	%	0.836				0.82%
Y RADIAL	5139.1	102.0	%	1.18				1.16%
Ag 328.068†	20.5	0.0998	ug/L	0.06261	0.0998	ppb	0.06261	62.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.8	1.6407	ug/L	7.42169	1.6407	ppb	7.42169	452.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.7	0.7224	ug/L	3.08091	0.7224	ppb	3.08091	426.48%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-108.1	-2.6882	ug/L	0.18692	-2.6882	ppb	0.18692	6.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.9	0.0569	ug/L	0.05038	0.0569	ppb	0.05038	88.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	100.5	0.0398	ug/L	0.03038	0.0398	ppb	0.03038	76.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.9	8.7469	ug/L	0.89732	8.7469	ppb	0.89732	10.26%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                14.1      0.1952 ug/L       0.10445      0.1952 ppb        0.10445  53.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.4      0.2202 ug/L       0.10349      0.2202 ppb        0.10349  47.00%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.0      0.0656 ug/L       0.33819      0.0656 ppb        0.33819 515.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                89.5      0.3286 ug/L       0.34757      0.3286 ppb        0.34757 105.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -3.3112 ug/L       4.61987     -3.3112 ppb        4.61987 139.52%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         133.6      25.238 ug/L       14.4183      25.238 ppb        14.4183  57.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.0     -1.5754 ug/L      57.31703     -1.5754 ppb       57.31703 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                36.8      0.0576 ug/L       0.02223      0.0576 ppb        0.02223  38.62%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.8      0.2533 ug/L       0.48674      0.2533 ppb        0.48674 192.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -88.4     -26.905 ug/L        5.6111     -26.905 ppb         5.6111  20.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.1      0.4038 ug/L       0.48284      0.4038 ppb        0.48284 119.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.4      3.3876 ug/L       4.12011      3.3876 ppb        4.12011 121.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -16.4     -2.6095 ug/L       0.11037     -2.6095 ppb        0.11037   4.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.7      5.8348 ug/L       4.84793      5.8348 ppb        4.84793  83.09%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.2      2.0418 ug/L       1.29203      2.0418 ppb        1.29203  63.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.9      0.5090 ug/L       4.19230      0.5090 ppb        4.19230 823.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                87.7      3.1259 ug/L       0.21861      3.1259 ppb        0.21861   6.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.6     -0.3649 ug/L       0.84353     -0.3649 ppb        0.84353 231.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 1.9      0.0133 ug/L       0.03074      0.0133 ppb        0.03074 230.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               109.4      0.2169 ug/L       0.16400      0.2169 ppb        0.16400  75.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      1.4284 ug/L       0.33077      1.4284 ppb        0.33077  23.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 72.4      2.3996 ug/L       1.53341      2.3996 ppb        1.53341  63.90%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -5.4     -0.0332 ug/L       0.16986     -0.0332 ppb        0.16986 511.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -49.7     -0.5370 ug/L       0.04816     -0.5370 ppb        0.04816   8.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      77.5      5.9213 ug/L       0.96518      5.9213 ppb        0.96518  16.30%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 38 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/4/2010 22:43:00**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4848.1	4848.1	102	%			22:44:52
1	Y RADIAL	5117.2	5117.2	101.5	%			22:44:52
1	Al 396.153Radial†	5350.6	5322.5	4849.8	ug/L	4849.8	ppb	22:44:52
1	Ca 317.933Radial†	2820.1	2743.6	4909.7	ug/L	4909.7	ppb	22:45:12
1	Fe 238.204 Radial†	479.1	462.0	4809.6	ug/L	4809.6	ppb	22:45:12
1	K 766.490 Radial†	28987.5	26081.9	4919.3	ug/L	4919.3	ppb	22:44:52
1	Mg 279.077 IEC†	132.9	128.1	5046.5	ug/L	5046.5	ppb	22:45:12
1	Na 589.592 Radial†	28453.8	28603.0	8703.6	ug/L	8703.6	ppb	22:44:52
1	Sr 421.552†	68261.7	66832.6	476.20	ug/L	476.20	ppb	22:44:52
1	Sc 361.383	817323.1	817323.1	103.35	%			22:46:11
1	Y 371.029	721177.3	721177.3	102.01	%			22:46:11
1	Ag 328.068†	100795.6	97349.7	492.00	ug/L	492.00	ppb	22:46:11
1	As 188.979†	1136.8	1128.5	494.84	ug/L	494.84	ppb	22:46:31
1	B 249.677†	19808.5	19390.3	480.00	ug/L	480.00	ppb	22:46:11
1	Ba 233.527†	44046.5	42621.8	495.50	ug/L	495.50	ppb	22:46:11
1	Be 313.107†	1298161.8	1265386.6	496.20	ug/L	496.20	ppb	22:46:11
1	Cd 226.502†	36025.9	35040.0	481.60	ug/L	481.60	ppb	22:46:31
1	Co 228.616†	17265.4	16769.7	498.97	ug/L	498.97	ppb	22:46:31
1	Cr 267.716†	38224.2	36923.1	492.95	ug/L	492.95	ppb	22:46:11
1	Cu 324.752†	146481.3	134006.2	494.26	ug/L	494.26	ppb	22:46:11
1	Mn 257.610†	330717.1	319559.4	502.32	ug/L	502.32	ppb	22:46:11
1	Mo 202.031†	5615.8	5421.7	490.60	ug/L	490.60	ppb	22:46:31
1	Ni 231.604†	16469.4	15854.7	489.18	ug/L	489.18	ppb	22:46:31
1	P 214.914†	4869.4	4512.6	2351.7	ug/L	2351.7	ppb	22:46:31
1	Pb 220.353†	3127.3	3083.3	491.25	ug/L	491.25	ppb	22:46:31
1	S 181.975 Axial†	855.4	786.6	976.26	ug/L	976.26	ppb	22:46:31
1	Sb 206.836†	1278.2	1203.9	489.45	ug/L	489.45	ppb	22:46:31
1	Se 196.026†	832.4	824.4	502.15	ug/L	502.15	ppb	22:46:31
1	Si 251.611†	71757.8	68879.1	2450.4	ug/L	2450.4	ppb	22:46:11
1	Sn 189.927†	2192.7	2108.6	482.48	ug/L	482.48	ppb	22:46:31
1	Ti 334.940†	260184.7	253080.1	501.24	ug/L	501.24	ppb	22:46:11
1	Tl 190.801†	1079.4	1080.1	493.09	ug/L	493.09	ppb	22:46:31
1	U 409.014†	12258.5	14229.5	470.18	ug/L	470.18	ppb	22:46:11
1	V 292.402†	63745.4	63337.0	498.36	ug/L	498.36	ppb	22:46:11
1	Zn 213.857†	48232.2	45870.4	488.38	ug/L	488.38	ppb	22:46:11
1	SiO2†	71304.9	68431.7	5223.2	ug/L	5223.2	ppb	22:47:31
2	Sc Radial	4769.3	4769.3	100	%			22:45:17
2	Y RADIAL	5015.7	5015.7	99.52	%			22:45:17
2	Al 396.153Radial†	5406.3	5464.5	4980.1	ug/L	4980.1	ppb	22:45:17
2	Ca 317.933Radial†	2802.9	2772.1	4960.7	ug/L	4960.7	ppb	22:45:37
2	Fe 238.204 Radial†	480.6	471.2	4905.3	ug/L	4905.3	ppb	22:45:37
2	K 766.490 Radial†	29240.0	26802.1	5055.2	ug/L	5055.2	ppb	22:45:17
2	Mg 279.077 IEC†	134.8	132.1	5204.2	ug/L	5204.2	ppb	22:45:37
2	Na 589.592 Radial†	28589.5	29198.4	8884.7	ug/L	8884.7	ppb	22:45:17
2	Sr 421.552†	68743.5	68416.4	487.49	ug/L	487.49	ppb	22:45:17
2	Sc 361.383	818240.4	818240.4	103.47	%			22:46:38
2	Y 371.029	722001.5	722001.5	102.12	%			22:46:38
2	Ag 328.068†	101700.8	98115.2	495.88	ug/L	495.88	ppb	22:46:38
2	As 188.979†	1132.1	1122.8	492.42	ug/L	492.42	ppb	22:46:59
2	B 249.677†	19989.9	19544.1	483.82	ug/L	483.82	ppb	22:46:38
2	Ba 233.527†	44528.9	43040.2	500.36	ug/L	500.36	ppb	22:46:38
2	Be 313.107†	1309165.4	1274613.3	499.82	ug/L	499.82	ppb	22:46:38
2	Cd 226.502†	35665.6	34652.6	476.27	ug/L	476.27	ppb	22:46:59
2	Co 228.616†	17122.1	16612.5	494.28	ug/L	494.28	ppb	22:46:59
2	Cr 267.716†	38536.0	37183.0	496.41	ug/L	496.41	ppb	22:46:38
2	Cu 324.752†	147888.9	135207.7	498.69	ug/L	498.69	ppb	22:46:38
2	Mn 257.610†	333287.0	321684.4	505.66	ug/L	505.66	ppb	22:46:38
2	Mo 202.031†	5574.7	5375.9	486.47	ug/L	486.47	ppb	22:46:59
2	Ni 231.604†	16310.9	15683.6	483.90	ug/L	483.90	ppb	22:46:59

2	P 214.914†	4816.5	4456.2	2320.2 ug/L	2320.2 ppb	22:46:59
2	Pb 220.353†	3101.9	3055.4	486.83 ug/L	486.83 ppb	22:46:59
2	S 181.975 Axial†	834.6	765.6	950.08 ug/L	950.08 ppb	22:46:59
2	Sb 206.836†	1291.0	1214.8	493.63 ug/L	493.63 ppb	22:46:59
2	Se 196.026†	830.9	822.0	500.97 ug/L	500.97 ppb	22:46:59
2	Si 251.611†	72431.7	69452.6	2470.9 ug/L	2470.9 ppb	22:46:38
2	Sn 189.927†	2193.0	2106.4	482.00 ug/L	482.00 ppb	22:46:59
2	Ti 334.940†	262405.1	254943.8	504.92 ug/L	504.92 ppb	22:46:38
2	Tl 190.801†	1060.9	1061.0	484.53 ug/L	484.53 ppb	22:46:59
2	U 409.014†	12617.0	14562.7	481.20 ug/L	481.20 ppb	22:46:38
2	V 292.402†	64216.0	63722.8	501.30 ug/L	501.30 ppb	22:46:38
2	Zn 213.857†	48666.6	46238.0	492.34 ug/L	492.34 ppb	22:46:38
2	SiO2†	71403.2	68449.4	5224.7 ug/L	5224.7 ppb	22:47:36
3	Sc Radial	4737.8	4737.8	99.8 %		22:45:42
3	Y RADIAL	5011.3	5011.3	99.43 %		22:45:42
3	Al 396.153Radial†	5366.8	5460.7	4976.1 ug/L	4976.1 ppb	22:45:42
3	Ca 317.933Radial†	2846.3	2834.1	5071.7 ug/L	5071.7 ppb	22:46:02
3	Fe 238.204 Radial†	484.4	478.1	4977.4 ug/L	4977.4 ppb	22:46:02
3	K 766.490 Radial†	28907.4	26662.1	5028.7 ug/L	5028.7 ppb	22:45:42
3	Mg 279.077 IEC†	136.4	134.6	5304.9 ug/L	5304.9 ppb	22:46:02
3	Na 589.592 Radial†	28227.9	29025.0	8832.0 ug/L	8832.0 ppb	22:45:42
3	Sr 421.552†	68002.7	68128.4	485.43 ug/L	485.43 ppb	22:45:42
3	Sc 361.383	804181.6	804181.6	101.69 %		22:47:06
3	Y 371.029	711098.8	711098.8	100.58 %		22:47:06
3	Ag 328.068†	99303.8	97476.4	492.68 ug/L	492.68 ppb	22:47:06
3	As 188.979†	1131.8	1141.6	500.56 ug/L	500.56 ppb	22:47:26
3	B 249.677†	19445.3	19346.2	478.87 ug/L	478.87 ppb	22:47:06
3	Ba 233.527†	43301.4	42585.6	495.08 ug/L	495.08 ppb	22:47:06
3	Be 313.107†	1277422.2	1265517.6	496.25 ug/L	496.25 ppb	22:47:06
3	Cd 226.502†	35800.9	35388.4	486.38 ug/L	486.38 ppb	22:47:26
3	Co 228.616†	17131.0	16910.6	503.18 ug/L	503.18 ppb	22:47:26
3	Cr 267.716†	37576.2	36890.3	492.51 ug/L	492.51 ppb	22:47:06
3	Cu 324.752†	144134.5	134014.6	494.30 ug/L	494.30 ppb	22:47:06
3	Mn 257.610†	324393.7	318570.3	500.77 ug/L	500.77 ppb	22:47:06
3	Mo 202.031†	5584.7	5479.9	495.88 ug/L	495.88 ppb	22:47:26
3	Ni 231.604†	16375.4	16022.7	494.36 ug/L	494.36 ppb	22:47:26
3	P 214.914†	4809.5	4530.7	2361.5 ug/L	2361.5 ppb	22:47:26
3	Pb 220.353†	3094.2	3100.2	493.96 ug/L	493.96 ppb	22:47:26
3	S 181.975 Axial†	844.1	789.0	979.16 ug/L	979.16 ppb	22:47:26
3	Sb 206.836†	1296.5	1242.1	504.64 ug/L	504.64 ppb	22:47:26
3	Se 196.026†	815.1	820.5	500.27 ug/L	500.27 ppb	22:47:26
3	Si 251.611†	70491.2	68768.2	2446.4 ug/L	2446.4 ppb	22:47:06
3	Sn 189.927†	2187.2	2137.8	489.17 ug/L	489.17 ppb	22:47:26
3	Ti 334.940†	255504.9	252591.9	500.27 ug/L	500.27 ppb	22:47:06
3	Tl 190.801†	1069.9	1087.8	496.56 ug/L	496.56 ppb	22:47:26
3	U 409.014†	12160.0	14326.4	473.37 ug/L	473.37 ppb	22:47:06
3	V 292.402†	62493.3	63113.6	496.68 ug/L	496.68 ppb	22:47:06
3	Zn 213.857†	47288.4	45704.9	486.54 ug/L	486.54 ppb	22:47:06
3	SiO2†	71015.3	69274.4	5287.6 ug/L	5287.6 ppb	22:47:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	813248.3	102.84	%	0.995				0.97%
Sc Radial	4785.1	101	%	1.2				1.19%
Y 371.029	718092.6	101.57	%	0.859				0.85%
Y RADIAL	5048.1	100.2	%	1.19				1.19%
Ag 328.068†	97647.1	493.52	ug/L	2.071	493.52	ppb	2.071	0.42%
QC value within limits for Ag 328.068 Recovery = 98.70%								
Al 396.153Radial†	5415.9	4935.3	ug/L	74.08	4935.3	ppb	74.08	1.50%
QC value within limits for Al 396.153Radial Recovery = 98.71%								
As 188.979†	1131.0	495.94	ug/L	4.180	495.94	ppb	4.180	0.84%
QC value within limits for As 188.979 Recovery = 99.19%								
B 249.677†	19426.9	480.90	ug/L	2.598	480.90	ppb	2.598	0.54%
QC value within limits for B 249.677 Recovery = 96.18%								
Ba 233.527†	42749.2	496.98	ug/L	2.935	496.98	ppb	2.935	0.59%
QC value within limits for Ba 233.527 Recovery = 99.40%								
Be 313.107†	1268505.9	497.43	ug/L	2.075	497.43	ppb	2.075	0.42%
QC value within limits for Be 313.107 Recovery = 99.49%								
Ca 317.933Radial†	2783.2	4980.7	ug/L	82.80	4980.7	ppb	82.80	1.66%

```
   QC value within limits for Ca 317.933Radial  Recovery = 99.61%
Cd 226.502†            35027.0      481.42 ug/L         5.059      481.42 ppb          5.059   1.05%
   QC value within limits for Cd 226.502  Recovery = 96.28%
Co 228.616†            16764.3      498.81 ug/L         4.451      498.81 ppb          4.451   0.89%
   QC value within limits for Co 228.616  Recovery = 99.76%
Cr 267.716†            36998.8      493.95 ug/L         2.140      493.95 ppb          2.140   0.43%
   QC value within limits for Cr 267.716  Recovery = 98.79%
Cu 324.752†           134409.5      495.75 ug/L         2.547      495.75 ppb          2.547   0.51%
   QC value within limits for Cu 324.752  Recovery = 99.15%
Fe 238.204 Radial†       470.4      4897.5 ug/L        84.15      4897.5 ppb          84.15   1.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.95%
K 766.490 Radial†      26515.4      5001.1 ug/L        72.06      5001.1 ppb          72.06   1.44%
   QC value within limits for K 766.490 Radial  Recovery = 100.02%
Mg 279.077 IEC†          131.6      5185.2 ug/L       130.23      5185.2 ppb         130.23   2.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.70%
Mn 257.610†           319938.0      502.91 ug/L         2.499      502.91 ppb          2.499   0.50%
   QC value within limits for Mn 257.610  Recovery = 100.58%
Mo 202.031†             5425.8      490.98 ug/L         4.717      490.98 ppb          4.717   0.96%
   QC value within limits for Mo 202.031  Recovery = 98.20%
Na 589.592 Radial†     28942.1      8806.7 ug/L        93.18      8806.7 ppb          93.18   1.06%
   QC value less than the lower limit for Na 589.592 Radial  Recovery = 88.07%
Ni 231.604†            15853.7      489.15 ug/L         5.231      489.15 ppb          5.231   1.07%
   QC value within limits for Ni 231.604  Recovery = 97.83%
P 214.914†              4499.9      2344.4 ug/L        21.59      2344.4 ppb          21.59   0.92%
   QC value within limits for P 214.914  Recovery = 93.78%
Pb 220.353†             3079.7      490.68 ug/L         3.599      490.68 ppb          3.599   0.73%
   QC value within limits for Pb 220.353  Recovery = 98.14%
S 181.975 Axial†         780.4      968.50 ug/L        16.019      968.50 ppb         16.019   1.65%
   QC value within limits for S 181.975 Axial  Recovery = 96.85%
Sb 206.836†             1220.3      495.91 ug/L         7.846      495.91 ppb          7.846   1.58%
   QC value within limits for Sb 206.836  Recovery = 99.18%
Se 196.026†              822.3      501.13 ug/L         0.949      501.13 ppb          0.949   0.19%
   QC value within limits for Se 196.026  Recovery = 100.23%
Si 251.611†            69033.3      2455.9 ug/L        13.15      2455.9 ppb          13.15   0.54%
   QC value within limits for Si 251.611  Recovery = 98.24%
Sn 189.927†             2117.6      484.55 ug/L         4.010      484.55 ppb          4.010   0.83%
   QC value within limits for Sn 189.927  Recovery = 96.91%
Sr 421.552†            67792.4      483.04 ug/L         6.011      483.04 ppb          6.011   1.24%
   QC value within limits for Sr 421.552  Recovery = 96.61%
Ti 334.940†           253538.6      502.14 ug/L         2.452      502.14 ppb          2.452   0.49%
   QC value within limits for Ti 334.940  Recovery = 100.43%
Tl 190.801†             1076.3      491.39 ug/L         6.193      491.39 ppb          6.193   1.26%
   QC value within limits for Tl 190.801  Recovery = 98.28%
U 409.014†             14372.9      474.92 ug/L         5.674      474.92 ppb          5.674   1.19%
   QC value within limits for U 409.014  Recovery = 94.98%
V 292.402†             63391.1      498.78 ug/L         2.336      498.78 ppb          2.336   0.47%
   QC value within limits for V 292.402  Recovery = 99.76%
Zn 213.857†            45937.8      489.09 ug/L         2.964      489.09 ppb          2.964   0.61%
   QC value within limits for Zn 213.857  Recovery = 97.82%
SiO2†                  68718.5      5245.2 ug/L        36.73      5245.2 ppb          36.73   0.70%
   QC value within limits for SiO2  Recovery = 98.09%
QC Failed.  Continue with analysis.
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Sequence No.: 39 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/4/2010 22:49:51**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4763.7	4763.7	100	%			22:51:43
1	Y RADIAL	5041.1	5041.1	100.0	%			22:51:43
1	Al 396.153Radial†	-73.9	8.9	8.1032	ug/L	8.1032	ppb	22:52:03
1	Ca 317.933Radial†	23.1	4.8	8.5453	ug/L	8.5453	ppb	22:52:03
1	Fe 238.204 Radial†	10.1	2.8	28.814	ug/L	28.814	ppb	22:52:03
1	K 766.490 Radial†	2343.7	29.2	5.5323	ug/L	5.5323	ppb	22:51:43
1	Mg 279.077 IEC†	0.7	-1.4	-57.093	ug/L	-57.093	ppb	22:52:03
1	Na 589.592 Radial†	-864.6	-124.6	-37.924	ug/L	-37.924	ppb	22:51:43
1	Sr 421.552†	40.9	21.8	0.1551	ug/L	0.1551	ppb	22:51:43
1	Sc 361.383	796400.3	796400.3	100.71	%			22:53:00
1	Y 371.029	710999.7	710999.7	100.57	%			22:53:00
1	Ag 328.068†	208.6	30.7	0.1629	ug/L	0.1629	ppb	22:53:00
1	As 188.979†	-33.0	-4.1	-1.7895	ug/L	-1.7895	ppb	22:53:20
1	B 249.677†	-288.2	-62.0	-1.5458	ug/L	-1.5458	ppb	22:53:20
1	Ba 233.527†	4.8	8.8	0.1030	ug/L	0.1030	ppb	22:53:20
1	Be 313.107†	-9305.3	92.5	0.0363	ug/L	0.0363	ppb	22:53:00
1	Cd 226.502†	-173.0	10.8	0.1463	ug/L	0.1463	ppb	22:53:20
1	Co 228.616†	-58.5	6.3	0.1869	ug/L	0.1869	ppb	22:53:20
1	Cr 267.716†	75.2	13.5	0.1801	ug/L	0.1801	ppb	22:53:20
1	Cu 324.752†	7917.0	137.7	0.5096	ug/L	0.5096	ppb	22:53:00
1	Mn 257.610†	461.6	27.9	0.0490	ug/L	0.0490	ppb	22:53:20
1	Mo 202.031†	13.6	1.5	0.1370	ug/L	0.1370	ppb	22:53:20
1	Ni 231.604†	104.4	23.2	0.7149	ug/L	0.7149	ppb	22:53:20
1	P 214.914†	202.2	1.9	0.9163	ug/L	0.9163	ppb	22:53:20
1	Pb 220.353†	-68.4	-10.4	-1.6550	ug/L	-1.6550	ppb	22:53:20
1	S 181.975 Axial†	38.0	-3.3	-4.0897	ug/L	-4.0897	ppb	22:53:20
1	Sb 206.836†	44.8	11.6	4.5429	ug/L	4.5429	ppb	22:53:20
1	Se 196.026†	-21.2	-2.1	-1.1630	ug/L	-1.1630	ppb	22:53:20
1	Si 251.611†	571.0	15.9	0.5639	ug/L	0.5639	ppb	22:53:20
1	Sn 189.927†	7.0	-6.1	-1.4031	ug/L	-1.4031	ppb	22:53:20
1	Ti 334.940†	-1314.5	29.5	0.0642	ug/L	0.0642	ppb	22:53:00
1	Tl 190.801†	-22.3	13.6	6.1460	ug/L	6.1460	ppb	22:53:20
1	U 409.014†	-2386.6	-1.3	-0.0456	ug/L	-0.0456	ppb	22:53:00
1	V 292.402†	-1672.8	-1.8	-0.0172	ug/L	-0.0172	ppb	22:53:00
1	Zn 213.857†	762.5	-40.1	-0.4408	ug/L	-0.4408	ppb	22:53:20
1	SiO2†	599.9	35.4	2.7046	ug/L	2.7046	ppb	22:54:16
2	Sc Radial	4767.2	4767.2	100	%			22:52:08
2	Y RADIAL	5073.6	5073.6	100.7	%			22:52:08
2	Al 396.153Radial†	-76.2	6.5	5.9763	ug/L	5.9763	ppb	22:52:28
2	Ca 317.933Radial†	27.0	8.7	15.513	ug/L	15.513	ppb	22:52:28
2	Fe 238.204 Radial†	7.0	-0.3	-3.5739	ug/L	-3.5739	ppb	22:52:28
2	K 766.490 Radial†	2409.7	93.2	17.598	ug/L	17.598	ppb	22:52:08
2	Mg 279.077 IEC†	3.6	1.5	57.328	ug/L	57.328	ppb	22:52:28
2	Na 589.592 Radial†	-825.6	-85.1	-25.909	ug/L	-25.909	ppb	22:52:08
2	Sr 421.552†	27.2	8.2	0.0580	ug/L	0.0580	ppb	22:52:08
2	Sc 361.383	797346.1	797346.1	100.83	%			22:53:25
2	Y 371.029	711197.3	711197.3	100.60	%			22:53:25
2	Ag 328.068†	190.7	12.7	0.0606	ug/L	0.0606	ppb	22:53:25
2	As 188.979†	-27.0	1.8	0.7951	ug/L	0.7951	ppb	22:53:45
2	B 249.677†	-331.2	-104.2	-2.5925	ug/L	-2.5925	ppb	22:53:45
2	Ba 233.527†	-0.0	4.0	0.0475	ug/L	0.0475	ppb	22:53:45
2	Be 313.107†	-9360.8	48.4	0.0192	ug/L	0.0192	ppb	22:53:25
2	Cd 226.502†	-181.8	2.3	0.0336	ug/L	0.0336	ppb	22:53:45
2	Co 228.616†	-56.4	8.4	0.2513	ug/L	0.2513	ppb	22:53:45
2	Cr 267.716†	63.3	1.6	0.0200	ug/L	0.0200	ppb	22:53:45
2	Cu 324.752†	7872.9	84.6	0.3095	ug/L	0.3095	ppb	22:53:25
2	Mn 257.610†	421.5	-12.4	-0.0222	ug/L	-0.0222	ppb	22:53:45
2	Mo 202.031†	16.9	4.8	0.4361	ug/L	0.4361	ppb	22:53:45
2	Ni 231.604†	88.7	7.5	0.2315	ug/L	0.2315	ppb	22:53:45

2	P 214.914†	203.9	3.4	1.7840 ug/L	1.7840 ppb	22:53:45
2	Pb 220.353†	-59.7	-1.7	-0.2596 ug/L	-0.2596 ppb	22:53:45
2	S 181.975 Axial†	46.3	4.9	6.0659 ug/L	6.0659 ppb	22:53:45
2	Sb 206.836†	38.3	5.1	2.0434 ug/L	2.0434 ppb	22:53:45
2	Se 196.026†	-20.2	-1.1	-0.6561 ug/L	-0.6561 ppb	22:53:45
2	Si 251.611†	576.8	21.0	0.7418 ug/L	0.7418 ppb	22:53:45
2	Sn 189.927†	18.2	5.0	1.1511 ug/L	1.1511 ppb	22:53:45
2	Ti 334.940†	-1274.3	70.8	0.1358 ug/L	0.1358 ppb	22:53:25
2	Tl 190.801†	-36.0	-0.0	-0.0191 ug/L	-0.0191 ppb	22:53:45
2	U 409.014†	-2255.4	131.7	4.3685 ug/L	4.3685 ppb	22:53:25
2	V 292.402†	-1614.9	57.7	0.4640 ug/L	0.4640 ppb	22:53:25
2	Zn 213.857†	752.3	-51.2	-0.5514 ug/L	-0.5514 ppb	22:53:45
2	SiO2†	589.4	24.3	1.8462 ug/L	1.8462 ppb	22:54:21
3	Sc Radial	4792.0	4792.0	101 %		22:52:33
3	Y RADIAL	5088.5	5088.5	101.0 %		22:52:33
3	Al 396.153Radial†	-78.3	4.9	4.4719 ug/L	4.4719 ppb	22:52:53
3	Ca 317.933Radial†	17.9	-0.6	-1.0141 ug/L	-1.0141 ppb	22:52:53
3	Fe 238.204 Radial†	10.0	2.7	27.797 ug/L	27.797 ppb	22:52:53
3	K 766.490 Radial†	2424.7	95.7	18.079 ug/L	18.079 ppb	22:52:33
3	Mg 279.077 IEC†	5.0	2.9	113.67 ug/L	113.67 ppb	22:52:53
3	Na 589.592 Radial†	-873.4	-128.3	-39.043 ug/L	-39.043 ppb	22:52:33
3	Sr 421.552†	19.8	0.7	0.0049 ug/L	0.0049 ppb	22:52:33
3	Sc 361.383	787587.4	787587.4	99.592 %		22:53:51
3	Y 371.029	702915.1	702915.1	99.424 %		22:53:51
3	Ag 328.068†	199.9	24.3	0.1353 ug/L	0.1353 ppb	22:53:51
3	As 188.979†	-34.7	-6.2	-2.6953 ug/L	-2.6953 ppb	22:54:11
3	B 249.677†	-333.6	-110.7	-2.7588 ug/L	-2.7588 ppb	22:54:11
3	Ba 233.527†	14.5	18.6	0.2168 ug/L	0.2168 ppb	22:54:11
3	Be 313.107†	-9255.6	39.0	0.0156 ug/L	0.0156 ppb	22:53:51
3	Cd 226.502†	-174.5	7.4	0.0986 ug/L	0.0986 ppb	22:54:11
3	Co 228.616†	-44.6	19.6	0.5837 ug/L	0.5837 ppb	22:54:11
3	Cr 267.716†	59.4	-1.5	-0.0178 ug/L	-0.0178 ppb	22:54:11
3	Cu 324.752†	7799.6	107.8	0.4019 ug/L	0.4019 ppb	22:53:51
3	Mn 257.610†	457.5	28.9	0.0435 ug/L	0.0435 ppb	22:54:11
3	Mo 202.031†	15.9	4.0	0.3625 ug/L	0.3625 ppb	22:54:11
3	Ni 231.604†	92.9	12.7	0.3932 ug/L	0.3932 ppb	22:54:11
3	P 214.914†	204.0	6.0	3.1624 ug/L	3.1624 ppb	22:54:11
3	Pb 220.353†	-60.6	-3.3	-0.5303 ug/L	-0.5303 ppb	22:54:11
3	S 181.975 Axial†	46.6	5.8	7.1601 ug/L	7.1601 ppb	22:54:11
3	Sb 206.836†	37.8	5.1	1.9853 ug/L	1.9853 ppb	22:54:11
3	Se 196.026†	-18.7	0.2	0.1799 ug/L	0.1799 ppb	22:54:11
3	Si 251.611†	602.7	54.0	1.9219 ug/L	1.9219 ppb	22:54:11
3	Sn 189.927†	12.0	-1.0	-0.2263 ug/L	-0.2263 ppb	22:54:11
3	Ti 334.940†	-1268.2	61.3	0.1143 ug/L	0.1143 ppb	22:53:51
3	Tl 190.801†	-27.9	7.7	3.4940 ug/L	3.4940 ppb	22:54:11
3	U 409.014†	-2508.7	-150.3	-4.9879 ug/L	-4.9879 ppb	22:53:51
3	V 292.402†	-1624.2	28.4	0.2144 ug/L	0.2144 ppb	22:53:51
3	Zn 213.857†	750.6	-43.7	-0.4763 ug/L	-0.4763 ppb	22:54:11
3	SiO2†	599.1	41.2	3.1433 ug/L	3.1433 ppb	22:54:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	793777.9	100.38	%	0.681				0.68%
Sc Radial	4774.3	101	%	0.3				0.32%
Y 371.029	708370.7	100.20	%	0.668				0.67%
Y RADIAL	5067.8	100.5	%	0.48				0.48%
Ag 328.068†	22.5	0.1196	ug/L	0.05293	0.1196	ppb	0.05293	44.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.8	6.1838	ug/L	1.82451	6.1838	ppb	1.82451	29.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-1.2299	ug/L	1.81125	-1.2299	ppb	1.81125	147.27%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-92.3	-2.2991	ug/L	0.65761	-2.2991	ppb	0.65761	28.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.5	0.1224	ug/L	0.08633	0.1224	ppb	0.08633	70.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	60.0	0.0237	ug/L	0.01107	0.0237	ppb	0.01107	46.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.3	7.6815	ug/L	8.29749	7.6815	ppb	8.29749	108.02%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.9      0.0929 ug/L       0.05654      0.0929 ppb        0.05654  60.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                11.4      0.3406 ug/L       0.21296      0.3406 ppb        0.21296  62.52%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.5      0.0608 ug/L       0.10507      0.0608 ppb        0.10507 172.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               110.1      0.4070 ug/L       0.10014      0.4070 ppb        0.10014  24.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.7     17.679 ug/L       18.4124     17.679 ppb        18.4124 104.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          72.7     13.737 ug/L        7.1092     13.737 ppb         7.1092  51.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.0     37.967 ug/L       87.0112     37.967 ppb        87.0112 229.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                14.8      0.0235 ug/L       0.03961      0.0235 ppb        0.03961 168.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.4      0.3119 ug/L       0.15586      0.3119 ppb        0.15586  49.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -112.7    -34.292 ug/L        7.2814    -34.292 ppb         7.2814  21.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.5      0.4465 ug/L       0.24605      0.4465 ppb        0.24605  55.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.8      1.9542 ug/L       1.13272      1.9542 ppb        1.13272  57.96%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.1     -0.8150 ug/L       0.73997     -0.8150 ppb        0.73997  90.79%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.5      3.0454 ug/L       6.20340      3.0454 ppb        6.20340 203.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.3      2.8572 ug/L       1.46017      2.8572 ppb        1.46017  51.10%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.0     -0.5464 ug/L       0.67814     -0.5464 ppb        0.67814 124.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                30.3      1.0759 ug/L       0.73805      1.0759 ppb        0.73805  68.60%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.7     -0.1594 ug/L       1.27840     -0.1594 ppb        1.27840 801.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.2      0.0727 ug/L       0.07615      0.0727 ppb        0.07615 104.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                53.9      0.1048 ug/L       0.03678      0.1048 ppb        0.03678  35.11%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.1      3.2070 ug/L       3.09256      3.2070 ppb        3.09256  96.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -6.6     -0.2217 ug/L       4.68073     -0.2217 ppb        4.68073 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.1      0.2204 ug/L       0.24066      0.2204 ppb        0.24066 109.20%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -45.0     -0.4895 ug/L       0.05647     -0.4895 ppb        0.05647  11.54%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      33.6      2.5647 ug/L       0.65979      2.5647 ppb        0.65979  25.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 47
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/4/2010 23:44:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4728.9	4728.9	99.6	%			23:46:37
1	Y RADIAL	5008.6	5008.6	99.37	%			23:46:37
1	Al 396.153Radial†	5439.9	5544.3	5052.9	ug/L	5052.9	ppb	23:46:37
1	Ca 317.933Radial†	2819.4	2812.4	5032.9	ug/L	5032.9	ppb	23:46:57
1	Fe 238.204 Radial†	485.2	479.9	4995.4	ug/L	4995.4	ppb	23:46:57
1	K 766.490 Radial†	29355.7	27166.8	5123.8	ug/L	5123.8	ppb	23:46:37
1	Mg 279.077 IEC†	135.0	133.4	5258.5	ug/L	5258.5	ppb	23:46:57
1	Na 589.592 Radial†	29958.1	30815.4	9376.8	ug/L	9376.8	ppb	23:46:37
1	Sr 421.552†	70322.9	70586.4	502.95	ug/L	502.95	ppb	23:46:37
1	Sc 361.383	808954.8	808954.8	102.29	%			23:47:54
1	Y 371.029	713593.0	713593.0	100.93	%			23:47:54
1	Ag 328.068†	101330.5	98881.5	499.75	ug/L	499.75	ppb	23:47:59
1	As 188.979†	1139.5	1142.5	500.94	ug/L	500.94	ppb	23:48:19
1	B 249.677†	19770.1	19550.9	483.99	ug/L	483.99	ppb	23:47:59
1	Ba 233.527†	44125.3	43139.7	501.52	ug/L	501.52	ppb	23:47:59
1	Be 313.107†	1289592.5	1270002.8	498.00	ug/L	498.00	ppb	23:47:54
1	Cd 226.502†	36871.5	36227.2	497.92	ug/L	497.92	ppb	23:47:59
1	Co 228.616†	16760.3	16448.8	489.43	ug/L	489.43	ppb	23:48:19
1	Cr 267.716†	38310.4	37390.0	499.17	ug/L	499.17	ppb	23:47:59
1	Cu 324.752†	145799.1	134805.5	497.21	ug/L	497.21	ppb	23:47:59
1	Mn 257.610†	325689.5	317954.7	499.80	ug/L	499.80	ppb	23:47:59
1	Mo 202.031†	5560.2	5423.5	490.79	ug/L	490.79	ppb	23:48:19
1	Ni 231.604†	16684.0	16229.3	500.75	ug/L	500.75	ppb	23:47:59
1	P 214.914†	4800.3	4493.8	2340.9	ug/L	2340.9	ppb	23:48:19
1	Pb 220.353†	3104.6	3092.5	492.73	ug/L	492.73	ppb	23:48:19
1	S 181.975 Axial†	845.7	785.7	975.04	ug/L	975.04	ppb	23:48:19
1	Sb 206.836†	1281.4	1219.8	495.76	ug/L	495.76	ppb	23:48:19
1	Se 196.026†	817.7	818.3	498.98	ug/L	498.98	ppb	23:48:19
1	Si 251.611†	71744.0	69583.8	2475.6	ug/L	2475.6	ppb	23:47:59
1	Sn 189.927†	2188.6	2126.4	486.57	ug/L	486.57	ppb	23:48:19
1	Ti 334.940†	255177.9	250789.7	496.69	ug/L	496.69	ppb	23:47:59
1	Tl 190.801†	1062.2	1074.0	490.34	ug/L	490.34	ppb	23:48:19
1	U 409.014†	12915.7	14994.7	495.51	ug/L	495.51	ppb	23:47:59
1	V 292.402†	63800.2	64028.7	503.76	ug/L	503.76	ppb	23:47:59
1	Zn 213.857†	48270.1	46390.2	493.86	ug/L	493.86	ppb	23:47:59
1	SiO2†	70991.8	68839.4	5254.4	ug/L	5254.4	ppb	23:49:26
2	Sc Radial	4792.4	4792.4	101	%			23:47:02
2	Y RADIAL	5037.3	5037.3	99.94	%			23:47:02
2	Al 396.153Radial†	5383.1	5415.7	4935.1	ug/L	4935.1	ppb	23:47:02
2	Ca 317.933Radial†	2822.3	2777.9	4971.1	ug/L	4971.1	ppb	23:47:22
2	Fe 238.204 Radial†	486.5	474.7	4941.8	ug/L	4941.8	ppb	23:47:22
2	K 766.490 Radial†	29212.8	26635.1	5023.5	ug/L	5023.5	ppb	23:47:02
2	Mg 279.077 IEC†	131.9	128.5	5064.8	ug/L	5064.8	ppb	23:47:22
2	Na 589.592 Radial†	29689.4	30151.0	9174.6	ug/L	9174.6	ppb	23:47:02
2	Sr 421.552†	69910.8	69243.3	493.38	ug/L	493.38	ppb	23:47:02
2	Sc 361.383	809569.6	809569.6	102.37	%			23:48:25
2	Y 371.029	715090.6	715090.6	101.15	%			23:48:25
2	Ag 328.068†	99798.3	97309.6	491.83	ug/L	491.83	ppb	23:48:30
2	As 188.979†	1133.3	1135.7	497.88	ug/L	497.88	ppb	23:48:50
2	B 249.677†	19486.2	19259.0	476.75	ug/L	476.75	ppb	23:48:30
2	Ba 233.527†	43401.8	42400.2	492.93	ug/L	492.93	ppb	23:48:30
2	Be 313.107†	1293142.2	1272513.0	498.96	ug/L	498.96	ppb	23:48:25
2	Cd 226.502†	36367.8	35707.7	490.77	ug/L	490.77	ppb	23:48:30
2	Co 228.616†	16709.2	16386.4	487.60	ug/L	487.60	ppb	23:48:50
2	Cr 267.716†	37818.2	36880.7	492.38	ug/L	492.38	ppb	23:48:30
2	Cu 324.752†	143929.4	132870.9	490.07	ug/L	490.07	ppb	23:48:30
2	Mn 257.610†	320795.9	312932.7	491.92	ug/L	491.92	ppb	23:48:30
2	Mo 202.031†	5576.6	5435.4	491.86	ug/L	491.86	ppb	23:48:50
2	Ni 231.604†	16382.7	15922.7	491.29	ug/L	491.29	ppb	23:48:30

2	P 214.914†	4817.5	4507.0	2349.4 ug/L	2349.4 ppb	23:48:50
2	Pb 220.353†	3086.7	3072.7	489.58 ug/L	489.58 ppb	23:48:50
2	S 181.975 Axial†	840.5	780.0	967.98 ug/L	967.98 ppb	23:48:50
2	Sb 206.836†	1294.2	1231.4	500.30 ug/L	500.30 ppb	23:48:50
2	Se 196.026†	819.0	819.0	499.24 ug/L	499.24 ppb	23:48:50
2	Si 251.611†	70609.0	68421.9	2434.1 ug/L	2434.1 ppb	23:48:30
2	Sn 189.927†	2181.0	2117.4	484.50 ug/L	484.50 ppb	23:48:50
2	Ti 334.940†	251495.5	247003.2	489.20 ug/L	489.20 ppb	23:48:30
2	Tl 190.801†	1083.5	1094.1	499.36 ug/L	499.36 ppb	23:48:50
2	U 409.014†	12623.8	14699.9	485.76 ug/L	485.76 ppb	23:48:30
2	V 292.402†	63162.1	63357.9	498.56 ug/L	498.56 ppb	23:48:30
2	Zn 213.857†	47559.9	45660.6	486.10 ug/L	486.10 ppb	23:48:30
2	SiO2†	70147.7	67962.1	5187.3 ug/L	5187.3 ppb	23:49:31
3	Sc Radial	4740.4	4740.4	99.8 %		23:47:27
3	Y RADIAL	4983.0	4983.0	98.87 %		23:47:27
3	Al 396.153Radial†	5324.4	5415.3	4934.7 ug/L	4934.7 ppb	23:47:27
3	Ca 317.933Radial†	2842.1	2828.4	5061.5 ug/L	5061.5 ppb	23:47:47
3	Fe 238.204 Radial†	490.3	483.8	5036.4 ug/L	5036.4 ppb	23:47:47
3	K 766.490 Radial†	28874.0	26612.9	5019.3 ug/L	5019.3 ppb	23:47:27
3	Mg 279.077 IEC†	135.5	133.6	5266.2 ug/L	5266.2 ppb	23:47:47
3	Na 589.592 Radial†	29366.2	30149.7	9174.2 ug/L	9174.2 ppb	23:47:27
3	Sr 421.552†	68997.7	69087.8	492.27 ug/L	492.27 ppb	23:47:27
3	Sc 361.383	809927.3	809927.3	102.42 %		23:48:56
3	Y 371.029	716079.4	716079.4	101.29 %		23:48:56
3	Ag 328.068†	99798.3	97266.5	491.64 ug/L	491.64 ppb	23:49:01
3	As 188.979†	1134.8	1136.7	498.32 ug/L	498.32 ppb	23:49:21
3	B 249.677†	19532.4	19295.6	477.63 ug/L	477.63 ppb	23:49:01
3	Ba 233.527†	43481.5	42459.3	493.62 ug/L	493.62 ppb	23:49:01
3	Be 313.107†	1290167.7	1269050.7	497.61 ug/L	497.61 ppb	23:48:56
3	Cd 226.502†	36456.1	35778.3	491.73 ug/L	491.73 ppb	23:49:01
3	Co 228.616†	16837.2	16504.2	491.10 ug/L	491.10 ppb	23:49:21
3	Cr 267.716†	37856.9	36902.3	492.67 ug/L	492.67 ppb	23:49:01
3	Cu 324.752†	143603.8	132490.9	488.68 ug/L	488.68 ppb	23:49:01
3	Mn 257.610†	321488.2	313470.3	492.76 ug/L	492.76 ppb	23:49:01
3	Mo 202.031†	5602.6	5458.4	493.94 ug/L	493.94 ppb	23:49:21
3	Ni 231.604†	16520.8	16050.4	495.23 ug/L	495.23 ppb	23:49:01
3	P 214.914†	4835.6	4522.6	2358.1 ug/L	2358.1 ppb	23:49:21
3	Pb 220.353†	3109.2	3093.3	492.85 ug/L	492.85 ppb	23:49:21
3	S 181.975 Axial†	845.3	784.3	973.34 ug/L	973.34 ppb	23:49:21
3	Sb 206.836†	1297.4	1233.9	501.44 ug/L	501.44 ppb	23:49:21
3	Se 196.026†	823.3	822.8	501.75 ug/L	501.75 ppb	23:49:21
3	Si 251.611†	70557.9	68341.5	2431.2 ug/L	2431.2 ppb	23:49:01
3	Sn 189.927†	2205.3	2140.2	489.72 ug/L	489.72 ppb	23:49:21
3	Ti 334.940†	251710.7	247104.8	489.40 ug/L	489.40 ppb	23:49:01
3	Tl 190.801†	1079.8	1090.1	497.51 ug/L	497.51 ppb	23:49:21
3	U 409.014†	12415.0	14490.6	478.81 ug/L	478.81 ppb	23:49:01
3	V 292.402†	63110.3	63280.2	497.96 ug/L	497.96 ppb	23:49:01
3	Zn 213.857†	47692.4	45769.5	487.23 ug/L	487.23 ppb	23:49:01
3	SiO2†	70692.1	68463.4	5225.6 ug/L	5225.6 ppb	23:49:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	809483.9	102.36	%	0.062				0.06%
Sc Radial	4753.9	100	%	0.7				0.71%
Y 371.029	714921.0	101.12	%	0.177				0.18%
Y RADIAL	5009.6	99.39	%	0.540				0.54%
Ag 328.068†	97819.2	494.41	ug/L	4.630	494.41	ppb	4.630	0.94%
QC value within limits for Ag 328.068 Recovery = 98.88%								
Al 396.153Radial†	5458.4	4974.2	ug/L	68.12	4974.2	ppb	68.12	1.37%
QC value within limits for Al 396.153Radial Recovery = 99.48%								
As 188.979†	1138.3	499.05	ug/L	1.651	499.05	ppb	1.651	0.33%
QC value within limits for As 188.979 Recovery = 99.81%								
B 249.677†	19368.5	479.46	ug/L	3.952	479.46	ppb	3.952	0.82%
QC value within limits for B 249.677 Recovery = 95.89%								
Ba 233.527†	42666.4	496.02	ug/L	4.773	496.02	ppb	4.773	0.96%
QC value within limits for Ba 233.527 Recovery = 99.20%								
Be 313.107†	1270522.2	498.19	ug/L	0.697	498.19	ppb	0.697	0.14%
QC value within limits for Be 313.107 Recovery = 99.64%								
Ca 317.933Radial†	2806.2	5021.9	ug/L	46.17	5021.9	ppb	46.17	0.92%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.44%
Cd 226.502†            35904.4      493.47 ug/L         3.877      493.47 ppb          3.877   0.79%
   QC value within limits for Cd 226.502  Recovery = 98.69%
Co 228.616†            16446.5      489.38 ug/L         1.754      489.38 ppb          1.754   0.36%
   QC value within limits for Co 228.616  Recovery = 97.88%
Cr 267.716†            37057.7      494.74 ug/L         3.842      494.74 ppb          3.842   0.78%
   QC value within limits for Cr 267.716  Recovery = 98.95%
Cu 324.752†           133389.1      491.99 ug/L         4.574      491.99 ppb          4.574   0.93%
   QC value within limits for Cu 324.752  Recovery = 98.40%
Fe 238.204 Radial†       479.5      4991.2 ug/L         47.43      4991.2 ppb          47.43   0.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.82%
K 766.490 Radial†      26804.9      5055.6 ug/L         59.17      5055.6 ppb          59.17   1.17%
   QC value within limits for K 766.490 Radial  Recovery = 101.11%
Mg 279.077 IEC†          131.9      5196.5 ug/L        114.09      5196.5 ppb         114.09   2.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.93%
Mn 257.610†           314785.9      494.83 ug/L         4.330      494.83 ppb          4.330   0.88%
   QC value within limits for Mn 257.610  Recovery = 98.97%
Mo 202.031†             5439.1      492.19 ug/L         1.602      492.19 ppb          1.602   0.33%
   QC value within limits for Mo 202.031  Recovery = 98.44%
Na 589.592 Radial†     30372.1      9241.9 ug/L        116.84      9241.9 ppb         116.84   1.26%
   QC value within limits for Na 589.592 Radial  Recovery = 92.42%
Ni 231.604†            16067.5      495.75 ug/L         4.755      495.75 ppb          4.755   0.96%
   QC value within limits for Ni 231.604  Recovery = 99.15%
P 214.914†              4507.8      2349.5 ug/L          8.63      2349.5 ppb           8.63   0.37%
   QC value within limits for P 214.914  Recovery = 93.98%
Pb 220.353†             3086.2      491.72 ug/L         1.857      491.72 ppb          1.857   0.38%
   QC value within limits for Pb 220.353  Recovery = 98.34%
S 181.975 Axial†         783.3      972.12 ug/L         3.686      972.12 ppb          3.686   0.38%
   QC value within limits for S 181.975 Axial  Recovery = 97.21%
Sb 206.836†             1228.4      499.17 ug/L         3.005      499.17 ppb          3.005   0.60%
   QC value within limits for Sb 206.836  Recovery = 99.83%
Se 196.026†              820.0      499.99 ug/L         1.531      499.99 ppb          1.531   0.31%
   QC value within limits for Se 196.026  Recovery = 100.00%
Si 251.611†            68782.4      2447.0 ug/L         24.81      2447.0 ppb          24.81   1.01%
   QC value within limits for Si 251.611  Recovery = 97.88%
Sn 189.927†             2128.0      486.93 ug/L         2.631      486.93 ppb          2.631   0.54%
   QC value within limits for Sn 189.927  Recovery = 97.39%
Sr 421.552†            69639.1      496.20 ug/L         5.872      496.20 ppb          5.872   1.18%
   QC value within limits for Sr 421.552  Recovery = 99.24%
Ti 334.940†           248299.2      491.76 ug/L         4.266      491.76 ppb          4.266   0.87%
   QC value within limits for Ti 334.940  Recovery = 98.35%
Tl 190.801†             1086.1      495.74 ug/L         4.765      495.74 ppb          4.765   0.96%
   QC value within limits for Tl 190.801  Recovery = 99.15%
U 409.014†             14728.4      486.69 ug/L         8.391      486.69 ppb          8.391   1.72%
   QC value within limits for U 409.014  Recovery = 97.34%
V 292.402†             63555.6      500.09 ug/L         3.188      500.09 ppb          3.188   0.64%
   QC value within limits for V 292.402  Recovery = 100.02%
Zn 213.857†            45940.1      489.06 ug/L         4.193      489.06 ppb          4.193   0.86%
   QC value within limits for Zn 213.857  Recovery = 97.81%
SiO2†                  68421.6      5222.4 ug/L         33.69      5222.4 ppb          33.69   0.65%
   QC value within limits for SiO2  Recovery = 97.66%
All analyte(s) passed QC.
```

Sequence No.: 48
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/4/2010 23:51:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4714.7	4714.7	99.3	%			23:53:39
1	Y RADIAL	5026.1	5026.1	99.72	%			23:53:39
1	Al 396.153Radial†	-76.8	5.2	4.7107	ug/L	4.7107	ppb	23:53:59
1	Ca 317.933Radial†	20.2	2.1	3.7627	ug/L	3.7627	ppb	23:53:59
1	Fe 238.204 Radial†	7.1	-0.1	-1.3926	ug/L	-1.3926	ppb	23:53:59
1	K 766.490 Radial†	2399.7	109.8	20.747	ug/L	20.747	ppb	23:53:39
1	Mg 279.077 IEC†	0.6	-1.5	-58.394	ug/L	-58.394	ppb	23:53:59
1	Na 589.592 Radial†	-853.9	-122.8	-37.378	ug/L	-37.378	ppb	23:53:39
1	Sr 421.552†	38.2	19.6	0.1394	ug/L	0.1394	ppb	23:53:39
1	Sc 361.383	793136.7	793136.7	100.29	%			23:54:55
1	Y 371.029	710797.7	710797.7	100.54	%			23:54:55
1	Ag 328.068†	194.2	17.2	0.0823	ug/L	0.0823	ppb	23:54:55
1	As 188.979†	-27.2	1.5	0.6641	ug/L	0.6641	ppb	23:55:15
1	B 249.677†	-326.8	-101.6	-2.5281	ug/L	-2.5281	ppb	23:55:15
1	Ba 233.527†	14.9	18.9	0.2193	ug/L	0.2193	ppb	23:55:15
1	Be 313.107†	-9298.5	61.3	0.0240	ug/L	0.0240	ppb	23:54:55
1	Cd 226.502†	-176.6	6.5	0.0909	ug/L	0.0909	ppb	23:55:15
1	Co 228.616†	-58.8	5.7	0.1702	ug/L	0.1702	ppb	23:55:15
1	Cr 267.716†	76.9	15.5	0.2048	ug/L	0.2048	ppb	23:55:15
1	Cu 324.752†	7926.6	179.6	0.6601	ug/L	0.6601	ppb	23:54:55
1	Mn 257.610†	456.5	24.7	0.0410	ug/L	0.0410	ppb	23:55:15
1	Mo 202.031†	17.5	5.5	0.4973	ug/L	0.4973	ppb	23:55:15
1	Ni 231.604†	100.1	19.3	0.5951	ug/L	0.5951	ppb	23:55:15
1	P 214.914†	211.7	12.3	6.5363	ug/L	6.5363	ppb	23:55:15
1	Pb 220.353†	-57.0	0.7	0.1169	ug/L	0.1169	ppb	23:55:15
1	S 181.975 Axial†	45.1	3.9	4.8492	ug/L	4.8492	ppb	23:55:15
1	Sb 206.836†	33.7	0.7	0.3001	ug/L	0.3001	ppb	23:55:15
1	Se 196.026†	-26.5	-7.5	-4.4370	ug/L	-4.4370	ppb	23:55:15
1	Si 251.611†	577.4	24.5	0.8685	ug/L	0.8685	ppb	23:55:15
1	Sn 189.927†	12.9	-0.2	-0.0542	ug/L	-0.0542	ppb	23:55:15
1	Ti 334.940†	-1335.9	2.7	0.0088	ug/L	0.0088	ppb	23:54:55
1	Tl 190.801†	-30.1	5.7	2.5741	ug/L	2.5741	ppb	23:55:15
1	U 409.014†	-2246.6	128.6	4.2644	ug/L	4.2644	ppb	23:54:55
1	V 292.402†	-1668.0	-3.8	-0.0151	ug/L	-0.0151	ppb	23:54:55
1	Zn 213.857†	733.0	-66.4	-0.7179	ug/L	-0.7179	ppb	23:55:15
1	SiO2†	653.8	91.5	6.9906	ug/L	6.9906	ppb	23:56:11
2	Sc Radial	4749.6	4749.6	100	%			23:54:04
2	Y RADIAL	5042.8	5042.8	100.1	%			23:54:04
2	Al 396.153Radial†	-79.9	2.6	2.3844	ug/L	2.3844	ppb	23:54:24
2	Ca 317.933Radial†	18.0	-0.2	-0.3864	ug/L	-0.3864	ppb	23:54:24
2	Fe 238.204 Radial†	5.8	-1.5	-15.758	ug/L	-15.758	ppb	23:54:24
2	K 766.490 Radial†	2420.7	113.1	21.369	ug/L	21.369	ppb	23:54:04
2	Mg 279.077 IEC†	2.4	0.3	10.553	ug/L	10.553	ppb	23:54:24
2	Na 589.592 Radial†	-867.6	-130.2	-39.615	ug/L	-39.615	ppb	23:54:04
2	Sr 421.552†	39.3	20.3	0.1448	ug/L	0.1448	ppb	23:54:04
2	Sc 361.383	782255.8	782255.8	98.918	%			23:55:21
2	Y 371.029	701307.8	701307.8	99.196	%			23:55:21
2	Ag 328.068†	140.9	-34.1	-0.1775	ug/L	-0.1775	ppb	23:55:21
2	As 188.979†	-19.8	8.6	3.7362	ug/L	3.7362	ppb	23:55:41
2	B 249.677†	-345.0	-124.6	-3.0965	ug/L	-3.0965	ppb	23:55:41
2	Ba 233.527†	5.1	9.2	0.1041	ug/L	0.1041	ppb	23:55:41
2	Be 313.107†	-9064.3	169.0	0.0662	ug/L	0.0662	ppb	23:55:21
2	Cd 226.502†	-189.6	-9.0	-0.1223	ug/L	-0.1223	ppb	23:55:41
2	Co 228.616†	-45.6	18.3	0.5453	ug/L	0.5453	ppb	23:55:41
2	Cr 267.716†	80.9	20.6	0.2736	ug/L	0.2736	ppb	23:55:41
2	Cu 324.752†	7750.4	111.4	0.4110	ug/L	0.4110	ppb	23:55:21
2	Mn 257.610†	455.7	30.3	0.0456	ug/L	0.0456	ppb	23:55:41
2	Mo 202.031†	20.8	9.0	0.8160	ug/L	0.8160	ppb	23:55:41
2	Ni 231.604†	103.5	24.1	0.7445	ug/L	0.7445	ppb	23:55:41

2	P 214.914†	198.1	1.4	0.6920	ug/L	0.6920	ppb	23:55:41
2	Pb 220.353†	-69.1	-12.3	-1.9520	ug/L	-1.9520	ppb	23:55:41
2	S 181.975 Axial†	34.7	-5.9	-7.3665	ug/L	-7.3665	ppb	23:55:41
2	Sb 206.836†	37.1	4.7	1.8486	ug/L	1.8486	ppb	23:55:41
2	Se 196.026†	-22.5	-3.8	-2.2788	ug/L	-2.2788	ppb	23:55:41
2	Si 251.611†	597.8	53.2	1.8875	ug/L	1.8875	ppb	23:55:41
2	Sn 189.927†	11.6	-1.3	-0.3036	ug/L	-0.3036	ppb	23:55:41
2	Ti 334.940†	-1310.2	10.2	0.0200	ug/L	0.0200	ppb	23:55:21
2	Tl 190.801†	-32.0	3.3	1.5134	ug/L	1.5134	ppb	23:55:41
2	U 409.014†	-2398.8	-56.4	-1.8682	ug/L	-1.8682	ppb	23:55:21
2	V 292.402†	-1739.8	-99.5	-0.7625	ug/L	-0.7625	ppb	23:55:21
2	Zn 213.857†	728.1	-61.3	-0.6612	ug/L	-0.6612	ppb	23:55:41
2	SiO2†	579.9	26.0	1.9639	ug/L	1.9639	ppb	23:56:16
3	Sc Radial	4744.3	4744.3	99.9	%			23:54:29
3	Y RADIAL	5071.5	5071.5	100.6	%			23:54:29
3	Al 396.153Radial†	-78.1	4.3	3.9191	ug/L	3.9191	ppb	23:54:49
3	Ca 317.933Radial†	27.0	8.8	15.709	ug/L	15.709	ppb	23:54:49
3	Fe 238.204 Radial†	6.2	-1.1	-11.128	ug/L	-11.128	ppb	23:54:49
3	K 766.490 Radial†	2444.1	139.2	26.285	ug/L	26.285	ppb	23:54:29
3	Mg 279.077 IEC†	-0.0	-2.2	-85.105	ug/L	-85.105	ppb	23:54:49
3	Na 589.592 Radial†	-851.7	-115.3	-35.074	ug/L	-35.074	ppb	23:54:29
3	Sr 421.552†	-0.3	-19.3	-0.1373	ug/L	-0.1373	ppb	23:54:29
3	Sc 361.383	786505.3	786505.3	99.455	%			23:55:46
3	Y 371.029	705646.0	705646.0	99.810	%			23:55:46
3	Ag 328.068†	238.1	63.0	0.3160	ug/L	0.3160	ppb	23:55:46
3	As 188.979†	-34.9	-6.5	-2.8067	ug/L	-2.8067	ppb	23:56:06
3	B 249.677†	-342.6	-120.3	-2.9899	ug/L	-2.9899	ppb	23:56:06
3	Ba 233.527†	16.8	20.9	0.2425	ug/L	0.2425	ppb	23:56:06
3	Be 313.107†	-9167.8	114.5	0.0449	ug/L	0.0449	ppb	23:55:46
3	Cd 226.502†	-181.2	0.4	0.0065	ug/L	0.0065	ppb	23:56:06
3	Co 228.616†	-51.7	12.3	0.3677	ug/L	0.3677	ppb	23:56:06
3	Cr 267.716†	63.9	3.0	0.0417	ug/L	0.0417	ppb	23:56:06
3	Cu 324.752†	7787.8	106.7	0.3951	ug/L	0.3951	ppb	23:55:46
3	Mn 257.610†	454.7	26.7	0.0444	ug/L	0.0444	ppb	23:56:06
3	Mo 202.031†	13.9	2.0	0.1760	ug/L	0.1760	ppb	23:56:06
3	Ni 231.604†	104.2	24.3	0.7493	ug/L	0.7493	ppb	23:56:06
3	P 214.914†	209.5	11.8	6.3584	ug/L	6.3584	ppb	23:56:06
3	Pb 220.353†	-74.4	-17.3	-2.7424	ug/L	-2.7424	ppb	23:56:06
3	S 181.975 Axial†	45.0	4.2	5.2017	ug/L	5.2017	ppb	23:56:06
3	Sb 206.836†	37.1	4.4	1.7463	ug/L	1.7463	ppb	23:56:06
3	Se 196.026†	-20.9	-2.1	-1.2426	ug/L	-1.2426	ppb	23:56:06
3	Si 251.611†	586.1	38.2	1.3602	ug/L	1.3602	ppb	23:56:06
3	Sn 189.927†	16.2	3.2	0.7392	ug/L	0.7392	ppb	23:56:06
3	Ti 334.940†	-1310.1	17.5	0.0453	ug/L	0.0453	ppb	23:55:46
3	Tl 190.801†	-25.8	9.8	4.4338	ug/L	4.4338	ppb	23:56:06
3	U 409.014†	-2462.6	-107.5	-3.5628	ug/L	-3.5628	ppb	23:55:46
3	V 292.402†	-1637.3	13.1	0.0973	ug/L	0.0973	ppb	23:55:46
3	Zn 213.857†	744.0	-49.2	-0.5323	ug/L	-0.5323	ppb	23:56:06
3	SiO2†	616.5	59.6	4.5527	ug/L	4.5527	ppb	23:56:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	787299.3	99.556	%	0.6934				0.70%
Sc Radial	4736.2	99.8	%	0.40				0.40%
Y 371.029	705917.2	99.848	%	0.6720				0.67%
Y RADIAL	5046.8	100.1	%	0.46				0.45%
Ag 328.068†	15.4	0.0736	ug/L	0.24687	0.0736	ppb	0.24687	335.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.0	3.6714	ug/L	1.18280	3.6714	ppb	1.18280	32.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.5312	ug/L	3.27344	0.5312	ppb	3.27344	616.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-115.5	-2.8715	ug/L	0.30216	-2.8715	ppb	0.30216	10.52%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.3	0.1886	ug/L	0.07414	0.1886	ppb	0.07414	39.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	114.9	0.0450	ug/L	0.02109	0.0450	ppb	0.02109	46.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.6	6.3616	ug/L	8.35630	6.3616	ppb	8.35630	131.35%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -0.7     -0.0083 ug/L       0.10736     -0.0083 ppb        0.10736 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                12.1      0.3611 ug/L       0.18760      0.3611 ppb        0.18760  51.95%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.0      0.1733 ug/L       0.11910      0.1733 ppb        0.11910  68.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               132.6      0.4888 ug/L       0.14863      0.4888 ppb        0.14863  30.41%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.9     -9.4261 ug/L       7.33230     -9.4261 ppb        7.33230  77.79%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         120.7      22.801 ug/L        3.0340      22.801 ppb         3.0340  13.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -44.315 ug/L       49.3586     -44.315 ppb        49.3586 111.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                27.2      0.0437 ug/L       0.00237      0.0437 ppb        0.00237   5.43%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.5      0.4964 ug/L       0.31998      0.4964 ppb        0.31998  64.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -122.8     -37.356 ug/L        2.2706     -37.356 ppb         2.2706   6.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                22.6      0.6963 ug/L       0.08768      0.6963 ppb        0.08768  12.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  8.5      4.5289 ug/L       3.32407      4.5289 ppb        3.32407  73.40%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -9.6     -1.5258 ug/L       1.47653     -1.5258 ppb        1.47653  96.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.8948 ug/L       7.15665      0.8948 ppb        7.15665 799.80%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.3      1.2984 ug/L       0.86599      1.2984 ppb        0.86599  66.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.4     -2.6528 ug/L       1.62973     -2.6528 ppb        1.62973  61.43%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                38.6      1.3721 ug/L       0.50961      1.3721 ppb        0.50961  37.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.5      0.1271 ug/L       0.54456      0.1271 ppb        0.54456 428.33%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.9      0.0490 ug/L       0.16137      0.0490 ppb        0.16137 329.41%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                10.1      0.0247 ug/L       0.01870      0.0247 ppb        0.01870  75.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.3      2.8404 ug/L       1.47826      2.8404 ppb        1.47826  52.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -11.7     -0.3888 ug/L       4.11797     -0.3888 ppb        4.11797 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -30.1     -0.2268 ug/L       0.46739     -0.2268 ppb        0.46739 206.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -59.0     -0.6372 ug/L       0.09509     -0.6372 ppb        0.09509  14.92%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      59.0      4.5024 ug/L       2.51376      4.5024 ppb        2.51376  55.83%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 56
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/5/2010 00:47:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4332.8	4332.8	91.3	%			00:48:59
1	Y RADIAL	4577.3	4577.3	90.82	%			00:48:59
1	Al 396.153Radial†	5498.4	6107.7	5570.0	ug/L	5570.0	ppb	00:48:59
1	Ca 317.933Radial†	2791.7	3041.0	5441.9	ug/L	5441.9	ppb	00:49:19
1	Fe 238.204 Radial†	481.1	520.0	5410.4	ug/L	5410.4	ppb	00:49:19
1	K 766.490 Radial†	29668.9	30204.7	5697.1	ug/L	5697.1	ppb	00:48:59
1	Mg 279.077 IEC†	132.2	142.8	5626.1	ug/L	5626.1	ppb	00:49:19
1	Na 589.592 Radial†	29737.3	33323.4	10140	ug/L	10140	ppb	00:48:59
1	Sr 421.552†	70318.9	77037.1	548.91	ug/L	548.91	ppb	00:48:59
1	Sc 361.383	849425.7	849425.7	107.41	%			00:50:17
1	Y 371.029	751651.2	751651.2	106.32	%			00:50:17
1	Ag 328.068†	103166.6	95871.2	484.72	ug/L	484.72	ppb	00:50:22
1	As 188.979†	1131.8	1082.3	474.81	ug/L	474.81	ppb	00:50:42
1	B 249.677†	20413.1	19228.8	475.99	ug/L	475.99	ppb	00:50:22
1	Ba 233.527†	44888.9	41795.4	485.92	ug/L	485.92	ppb	00:50:22
1	Be 313.107†	1281018.5	1201955.8	471.35	ug/L	471.35	ppb	00:50:17
1	Cd 226.502†	37736.6	35315.3	485.33	ug/L	485.33	ppb	00:50:22
1	Co 228.616†	16616.9	15534.6	462.20	ug/L	462.20	ppb	00:50:42
1	Cr 267.716†	39235.2	36466.6	486.86	ug/L	486.86	ppb	00:50:22
1	Cu 324.752†	148807.2	130815.2	482.52	ug/L	482.52	ppb	00:50:22
1	Mn 257.610†	331960.9	308623.8	485.17	ug/L	485.17	ppb	00:50:22
1	Mo 202.031†	5537.0	5143.0	465.46	ug/L	465.46	ppb	00:50:42
1	Ni 231.604†	17003.0	15749.2	485.95	ug/L	485.95	ppb	00:50:22
1	P 214.914†	4784.5	4255.5	2214.0	ug/L	2214.0	ppb	00:50:42
1	Pb 220.353†	3092.5	2936.6	468.03	ug/L	468.03	ppb	00:50:42
1	S 181.975 Axial†	839.1	740.2	918.41	ug/L	918.41	ppb	00:50:42
1	Sb 206.836†	1276.6	1155.7	469.69	ug/L	469.69	ppb	00:50:42
1	Se 196.026†	808.9	772.1	472.45	ug/L	472.45	ppb	00:50:42
1	Si 251.611†	73190.3	67588.8	2404.7	ug/L	2404.7	ppb	00:50:22
1	Sn 189.927†	2178.3	2014.9	461.13	ug/L	461.13	ppb	00:50:42
1	Ti 334.940†	260558.8	243914.0	483.10	ug/L	483.10	ppb	00:50:22
1	Tl 190.801†	1068.1	1030.1	470.37	ug/L	470.37	ppb	00:50:42
1	U 409.014†	13096.4	14561.4	481.12	ug/L	481.12	ppb	00:50:22
1	V 292.402†	65348.6	62498.6	491.46	ug/L	491.46	ppb	00:50:22
1	Zn 213.857†	49390.3	45184.9	480.96	ug/L	480.96	ppb	00:50:22
1	SiO2†	70602.0	65169.8	4974.3	ug/L	4974.3	ppb	00:51:49
2	Sc Radial	4334.7	4334.7	91.3	%			00:49:24
2	Y RADIAL	4558.1	4558.1	90.43	%			00:49:24
2	Al 396.153Radial†	5404.2	6001.8	5471.9	ug/L	5471.9	ppb	00:49:24
2	Ca 317.933Radial†	2791.0	3038.8	5438.0	ug/L	5438.0	ppb	00:49:44
2	Fe 238.204 Radial†	481.8	520.4	5415.9	ug/L	5415.9	ppb	00:49:44
2	K 766.490 Radial†	29032.4	29493.1	5562.8	ug/L	5562.8	ppb	00:49:24
2	Mg 279.077 IEC†	132.9	143.5	5653.0	ug/L	5653.0	ppb	00:49:44
2	Na 589.592 Radial†	28939.6	32435.3	9869.7	ug/L	9869.7	ppb	00:49:24
2	Sr 421.552†	68445.8	74951.5	534.05	ug/L	534.05	ppb	00:49:24
2	Sc 361.383	808796.2	808796.2	102.27	%			00:50:47
2	Y 371.029	714914.9	714914.9	101.12	%			00:50:47
2	Ag 328.068†	99617.7	97226.2	491.55	ug/L	491.55	ppb	00:50:53
2	As 188.979†	1122.4	1126.1	493.82	ug/L	493.82	ppb	00:51:13
2	B 249.677†	19652.3	19439.6	481.16	ug/L	481.16	ppb	00:50:53
2	Ba 233.527†	43344.6	42384.8	492.76	ug/L	492.76	ppb	00:50:53
2	Be 313.107†	1294035.0	1274593.7	499.78	ug/L	499.78	ppb	00:50:47
2	Cd 226.502†	36542.3	35912.4	493.54	ug/L	493.54	ppb	00:50:53
2	Co 228.616†	16674.4	16367.9	487.03	ug/L	487.03	ppb	00:51:13
2	Cr 267.716†	38008.4	37102.0	495.34	ug/L	495.34	ppb	00:50:53
2	Cu 324.752†	142858.3	131958.0	486.73	ug/L	486.73	ppb	00:50:53
2	Mn 257.610†	321012.4	313444.0	492.74	ug/L	492.74	ppb	00:50:53
2	Mo 202.031†	5537.2	5402.1	488.89	ug/L	488.89	ppb	00:51:13
2	Ni 231.604†	16476.4	16029.5	494.59	ug/L	494.59	ppb	00:50:53

2	P 214.914†	4793.3	4487.9	2339.5 ug/L	2339.5 ppb	00:51:13
2	Pb 220.353†	3096.1	3084.7	491.58 ug/L	491.58 ppb	00:51:13
2	S 181.975 Axial†	844.3	784.5	973.46 ug/L	973.46 ppb	00:51:13
2	Sb 206.836†	1289.2	1227.6	498.76 ug/L	498.76 ppb	00:51:13
2	Se 196.026†	814.2	815.1	498.04 ug/L	498.04 ppb	00:51:13
2	Si 251.611†	70633.2	68511.4	2437.3 ug/L	2437.3 ppb	00:50:53
2	Sn 189.927†	2177.4	2115.9	484.23 ug/L	484.23 ppb	00:51:13
2	Ti 334.940†	251033.3	246786.1	488.79 ug/L	488.79 ppb	00:50:53
2	Tl 190.801†	1070.7	1082.6	494.13 ug/L	494.13 ppb	00:51:13
2	U 409.014†	12429.2	14521.4	479.78 ug/L	479.78 ppb	00:50:53
2	V 292.402†	63014.0	63272.2	497.78 ug/L	497.78 ppb	00:50:53
2	Zn 213.857†	47701.5	45843.5	487.97 ug/L	487.97 ppb	00:50:53
2	SiO2†	70160.8	68040.3	5193.3 ug/L	5193.3 ppb	00:51:54
3	Sc Radial	4751.8	4751.8	100 %		00:49:50
3	Y RADIAL	5027.8	5027.8	99.75 %		00:49:50
3	Al 396.153Radial†	5342.3	5420.4	4939.3 ug/L	4939.3 ppb	00:49:50
3	Ca 317.933Radial†	2792.6	2772.1	4960.7 ug/L	4960.7 ppb	00:50:10
3	Fe 238.204 Radial†	478.2	470.5	4898.0 ug/L	4898.0 ppb	00:50:10
3	K 766.490 Radial†	28978.7	26648.4	5026.1 ug/L	5026.1 ppb	00:49:50
3	Mg 279.077 IEC†	130.5	128.3	5056.7 ug/L	5056.7 ppb	00:50:10
3	Na 589.592 Radial†	28661.3	29375.1	8938.5 ug/L	8938.5 ppb	00:49:50
3	Sr 421.552†	68173.1	68098.8	485.22 ug/L	485.22 ppb	00:49:50
3	Sc 361.383	798681.6	798681.6	101.00 %		00:51:18
3	Y 371.029	706121.7	706121.7	99.877 %		00:51:18
3	Ag 328.068†	99266.8	98112.3	495.85 ug/L	495.85 ppb	00:51:23
3	As 188.979†	1121.8	1139.4	499.49 ug/L	499.49 ppb	00:51:43
3	B 249.677†	19603.1	19634.2	486.07 ug/L	486.07 ppb	00:51:23
3	Ba 233.527†	42977.1	42557.6	494.76 ug/L	494.76 ppb	00:51:23
3	Be 313.107†	1275206.3	1271974.1	498.76 ug/L	498.76 ppb	00:51:18
3	Cd 226.502†	36046.3	35873.7	493.06 ug/L	493.06 ppb	00:51:23
3	Co 228.616†	16595.6	16496.4	490.87 ug/L	490.87 ppb	00:51:43
3	Cr 267.716†	37523.7	37092.8	495.20 ug/L	495.20 ppb	00:51:23
3	Cu 324.752†	141870.6	132749.0	489.62 ug/L	489.62 ppb	00:51:23
3	Mn 257.610†	317894.0	314331.3	494.11 ug/L	494.11 ppb	00:51:23
3	Mo 202.031†	5529.6	5463.1	494.36 ug/L	494.36 ppb	00:51:43
3	Ni 231.604†	16327.7	16086.3	496.34 ug/L	496.34 ppb	00:51:23
3	P 214.914†	4781.9	4536.0	2365.3 ug/L	2365.3 ppb	00:51:43
3	Pb 220.353†	3081.4	3108.5	495.27 ug/L	495.27 ppb	00:51:43
3	S 181.975 Axial†	834.9	785.7	975.01 ug/L	975.01 ppb	00:51:43
3	Sb 206.836†	1282.7	1237.2	502.73 ug/L	502.73 ppb	00:51:43
3	Se 196.026†	811.2	822.2	501.08 ug/L	501.08 ppb	00:51:43
3	Si 251.611†	70003.8	68762.9	2446.2 ug/L	2446.2 ppb	00:51:23
3	Sn 189.927†	2177.9	2143.4	490.45 ug/L	490.45 ppb	00:51:43
3	Ti 334.940†	249058.1	247938.9	491.05 ug/L	491.05 ppb	00:51:23
3	Tl 190.801†	1069.6	1094.7	499.64 ug/L	499.64 ppb	00:51:43
3	U 409.014†	12475.5	14721.2	486.46 ug/L	486.46 ppb	00:51:23
3	V 292.402†	62429.6	63473.8	499.50 ug/L	499.50 ppb	00:51:23
3	Zn 213.857†	47193.5	45931.2	488.98 ug/L	488.98 ppb	00:51:23
3	SiO2†	70536.8	69281.4	5288.2 ug/L	5288.2 ppb	00:51:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	818967.8	103.56	%	3.396				3.28%
Sc Radial	4473.1	94.2	%	5.08				5.40%
Y 371.029	724229.3	102.44	%	3.416				3.33%
Y RADIAL	4721.0	93.67	%	5.274				5.63%
Ag 328.068†	97069.9	490.71	ug/L	5.614	490.71	ppb	5.614	1.14%
QC value within limits for Ag 328.068 Recovery = 98.14%								
Al 396.153Radial†	5843.3	5327.1	ug/L	339.38	5327.1	ppb	339.38	6.37%
QC value within limits for Al 396.153Radial Recovery = 106.54%								
As 188.979†	1115.9	489.38	ug/L	12.925	489.38	ppb	12.925	2.64%
QC value within limits for As 188.979 Recovery = 97.88%								
B 249.677†	19434.2	481.08	ug/L	5.042	481.08	ppb	5.042	1.05%
QC value within limits for B 249.677 Recovery = 96.22%								
Ba 233.527†	42245.9	491.15	ug/L	4.637	491.15	ppb	4.637	0.94%
QC value within limits for Ba 233.527 Recovery = 98.23%								
Be 313.107†	1249507.8	489.96	ug/L	16.129	489.96	ppb	16.129	3.29%
QC value within limits for Be 313.107 Recovery = 97.99%								
Ca 317.933Radial†	2950.6	5280.2	ug/L	276.66	5280.2	ppb	276.66	5.24%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.60%
Cd 226.502†            35700.5      490.64 ug/L         4.611      490.64 ppb         4.611   0.94%
   QC value within limits for Cd 226.502  Recovery = 98.13%
Co 228.616†            16133.0      480.03 ug/L        15.566      480.03 ppb        15.566   3.24%
   QC value within limits for Co 228.616  Recovery = 96.01%
Cr 267.716†            36887.1      492.47 ug/L         4.859      492.47 ppb         4.859   0.99%
   QC value within limits for Cr 267.716  Recovery = 98.49%
Cu 324.752†           131840.7      486.29 ug/L         3.572      486.29 ppb         3.572   0.73%
   QC value within limits for Cu 324.752  Recovery = 97.26%
Fe 238.204 Radial†       503.6      5241.4 ug/L       297.46      5241.4 ppb       297.46   5.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.83%
K 766.490 Radial†      28782.1      5428.7 ug/L       355.01      5428.7 ppb       355.01   6.54%
   QC value within limits for K 766.490 Radial  Recovery = 108.57%
Mg 279.077 IEC†          138.2      5445.3 ug/L       336.79      5445.3 ppb       336.79   6.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.91%
Mn 257.610†           312133.0      490.67 ug/L         4.815      490.67 ppb         4.815   0.98%
   QC value within limits for Mn 257.610  Recovery = 98.13%
Mo 202.031†             5336.1      482.90 ug/L        15.352      482.90 ppb        15.352   3.18%
   QC value within limits for Mo 202.031  Recovery = 96.58%
Na 589.592 Radial†     31711.3      9649.4 ug/L       630.28      9649.4 ppb       630.28   6.53%
   QC value within limits for Na 589.592 Radial  Recovery = 96.49%
Ni 231.604†            15955.0      492.29 ug/L         5.563      492.29 ppb         5.563   1.13%
   QC value within limits for Ni 231.604  Recovery = 98.46%
P 214.914†              4426.4      2306.3 ug/L        80.91      2306.3 ppb        80.91   3.51%
   QC value within limits for P 214.914  Recovery = 92.25%
Pb 220.353†             3043.3      484.96 ug/L        14.776      484.96 ppb        14.776   3.05%
   QC value within limits for Pb 220.353  Recovery = 96.99%
S 181.975 Axial†         770.1      955.63 ug/L        32.244      955.63 ppb        32.244   3.37%
   QC value within limits for S 181.975 Axial  Recovery = 95.56%
Sb 206.836†             1206.8      490.39 ug/L        18.037      490.39 ppb        18.037   3.68%
   QC value within limits for Sb 206.836  Recovery = 98.08%
Se 196.026†              803.1      490.52 ug/L        15.727      490.52 ppb        15.727   3.21%
   QC value within limits for Se 196.026  Recovery = 98.10%
Si 251.611†            68287.7      2429.4 ug/L         21.86      2429.4 ppb         21.86   0.90%
   QC value within limits for Si 251.611  Recovery = 97.18%
Sn 189.927†             2091.4      478.60 ug/L        15.448      478.60 ppb        15.448   3.23%
   QC value within limits for Sn 189.927  Recovery = 95.72%
Sr 421.552†            73362.5      522.73 ug/L        33.320      522.73 ppb        33.320   6.37%
   QC value within limits for Sr 421.552  Recovery = 104.55%
Ti 334.940†           246213.0      487.65 ug/L         4.096      487.65 ppb         4.096   0.84%
   QC value within limits for Ti 334.940  Recovery = 97.53%
Tl 190.801†             1069.1      488.05 ug/L        15.557      488.05 ppb        15.557   3.19%
   QC value within limits for Tl 190.801  Recovery = 97.61%
U 409.014†             14601.3      482.46 ug/L         3.536      482.46 ppb         3.536   0.73%
   QC value within limits for U 409.014  Recovery = 96.49%
V 292.402†             63081.5      496.25 ug/L         4.236      496.25 ppb         4.236   0.85%
   QC value within limits for V 292.402  Recovery = 99.25%
Zn 213.857†            45653.2      485.97 ug/L         4.369      485.97 ppb         4.369   0.90%
   QC value within limits for Zn 213.857  Recovery = 97.19%
SiO2†                  67497.2      5151.9 ug/L       160.97      5151.9 ppb       160.97   3.12%
   QC value within limits for SiO2  Recovery = 96.34%
All analyte(s) passed QC.
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Sequence No.: 57 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/5/2010 00:54:09**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5372.7	5372.7	113	%			00:56:01
1	Y RADIAL	5689.2	5689.2	112.9	%			00:56:01
1	Al 396.153Radial†	-81.8	10.2	9.3195	ug/L	9.3195	ppb	00:56:21
1	Ca 317.933Radial†	24.1	3.0	5.3714	ug/L	5.3714	ppb	00:56:21
1	Fe 238.204 Radial†	7.6	-0.5	-5.3495	ug/L	-5.3495	ppb	00:56:21
1	K 766.490 Radial†	2657.7	41.9	7.9020	ug/L	7.9020	ppb	00:56:01
1	Mg 279.077 IEC†	1.5	-0.8	-31.864	ug/L	-31.864	ppb	00:56:21
1	Na 589.592 Radial†	-818.6	13.7	4.1615	ug/L	4.1615	ppb	00:56:01
1	Sr 421.552†	43.2	19.3	0.1371	ug/L	0.1371	ppb	00:56:01
1	Sc 361.383	794658.3	794658.3	100.49	%			00:57:18
1	Y 371.029	714447.6	714447.6	101.05	%			00:57:18
1	Ag 328.068†	194.5	17.1	0.0865	ug/L	0.0865	ppb	00:57:18
1	As 188.979†	-32.1	-3.3	-1.4381	ug/L	-1.4381	ppb	00:57:38
1	B 249.677†	-209.1	16.1	0.4009	ug/L	0.4009	ppb	00:57:38
1	Ba 233.527†	13.9	17.8	0.2068	ug/L	0.2068	ppb	00:57:38
1	Be 313.107†	-9047.8	328.5	0.1288	ug/L	0.1288	ppb	00:57:18
1	Cd 226.502†	-168.9	14.6	0.2008	ug/L	0.2008	ppb	00:57:38
1	Co 228.616†	-58.0	6.7	0.1985	ug/L	0.1985	ppb	00:57:38
1	Cr 267.716†	87.1	25.5	0.3408	ug/L	0.3408	ppb	00:57:38
1	Cu 324.752†	7804.7	43.2	0.1601	ug/L	0.1601	ppb	00:57:18
1	Mn 257.610†	470.3	37.6	0.0598	ug/L	0.0598	ppb	00:57:38
1	Mo 202.031†	16.1	4.1	0.3695	ug/L	0.3695	ppb	00:57:38
1	Ni 231.604†	98.2	17.3	0.5330	ug/L	0.5330	ppb	00:57:38
1	P 214.914†	198.4	-1.4	-0.7686	ug/L	-0.7686	ppb	00:57:38
1	Pb 220.353†	-55.2	2.6	0.4154	ug/L	0.4154	ppb	00:57:38
1	S 181.975 Axial†	47.7	6.5	8.0174	ug/L	8.0174	ppb	00:57:38
1	Sb 206.836†	33.7	0.7	0.2562	ug/L	0.2562	ppb	00:57:38
1	Se 196.026†	-21.9	-2.8	-1.6959	ug/L	-1.6959	ppb	00:57:38
1	Si 251.611†	674.3	119.9	4.2698	ug/L	4.2698	ppb	00:57:38
1	Sn 189.927†	10.3	-2.8	-0.6385	ug/L	-0.6385	ppb	00:57:38
1	Ti 334.940†	-1282.8	58.1	0.1192	ug/L	0.1192	ppb	00:57:18
1	Tl 190.801†	-26.8	9.1	4.1038	ug/L	4.1038	ppb	00:57:38
1	U 409.014†	-2436.5	-56.0	-1.8586	ug/L	-1.8586	ppb	00:57:18
1	V 292.402†	-1643.7	23.6	0.1847	ug/L	0.1847	ppb	00:57:18
1	Zn 213.857†	781.6	-19.5	-0.2119	ug/L	-0.2119	ppb	00:57:38
1	SiO2†	687.1	123.4	9.4329	ug/L	9.4329	ppb	00:58:34
2	Sc Radial	4666.0	4666.0	98.3	%			00:56:26
2	Y RADIAL	4969.0	4969.0	98.59	%			00:56:26
2	Al 396.153Radial†	-72.4	8.8	8.0482	ug/L	8.0482	ppb	00:56:46
2	Ca 317.933Radial†	22.8	5.0	8.8989	ug/L	8.8989	ppb	00:56:46
2	Fe 238.204 Radial†	5.1	-2.1	-21.460	ug/L	-21.460	ppb	00:56:46
2	K 766.490 Radial†	2531.2	268.9	50.785	ug/L	50.785	ppb	00:56:26
2	Mg 279.077 IEC†	1.2	-0.9	-33.685	ug/L	-33.685	ppb	00:56:46
2	Na 589.592 Radial†	-867.2	-145.3	-44.225	ug/L	-44.225	ppb	00:56:26
2	Sr 421.552†	5.6	-13.3	-0.0947	ug/L	-0.0947	ppb	00:56:26
2	Sc 361.383	783518.8	783518.8	99.078	%			00:57:43
2	Y 371.029	703439.0	703439.0	99.498	%			00:57:43
2	Ag 328.068†	310.6	137.1	0.6886	ug/L	0.6886	ppb	00:57:43
2	As 188.979†	-20.3	8.1	3.5228	ug/L	3.5228	ppb	00:58:03
2	B 249.677†	-178.4	44.2	1.1022	ug/L	1.1022	ppb	00:58:03
2	Ba 233.527†	12.5	16.6	0.1925	ug/L	0.1925	ppb	00:58:03
2	Be 313.107†	-8925.6	323.8	0.1268	ug/L	0.1268	ppb	00:57:43
2	Cd 226.502†	-186.4	-5.6	-0.0753	ug/L	-0.0753	ppb	00:58:03
2	Co 228.616†	-62.0	1.8	0.0559	ug/L	0.0559	ppb	00:58:03
2	Cr 267.716†	66.2	5.6	0.0780	ug/L	0.0780	ppb	00:58:03
2	Cu 324.752†	7636.7	-15.9	-0.0557	ug/L	-0.0557	ppb	00:57:43
2	Mn 257.610†	509.1	83.4	0.1303	ug/L	0.1303	ppb	00:58:03
2	Mo 202.031†	22.1	10.3	0.9301	ug/L	0.9301	ppb	00:58:03
2	Ni 231.604†	98.3	18.7	0.5772	ug/L	0.5772	ppb	00:58:03

2	P 214.914†	204.1	7.2	3.9445	ug/L	3.9445	ppb	00:58:03
2	Pb 220.353†	-60.9	-4.0	-0.6291	ug/L	-0.6291	ppb	00:58:03
2	S 181.975 Axial†	44.6	4.0	4.9647	ug/L	4.9647	ppb	00:58:03
2	Sb 206.836†	40.3	7.8	3.1009	ug/L	3.1009	ppb	00:58:03
2	Se 196.026†	-23.2	-4.5	-2.7134	ug/L	-2.7134	ppb	00:58:03
2	Si 251.611†	693.9	149.2	5.3093	ug/L	5.3093	ppb	00:58:03
2	Sn 189.927†	15.3	2.4	0.5490	ug/L	0.5490	ppb	00:58:03
2	Ti 334.940†	-1301.4	21.2	0.0492	ug/L	0.0492	ppb	00:57:43
2	Tl 190.801†	-33.7	1.7	0.7840	ug/L	0.7840	ppb	00:58:03
2	U 409.014†	-2573.4	-228.7	-7.5809	ug/L	-7.5809	ppb	00:57:43
2	V 292.402†	-1623.7	20.5	0.1604	ug/L	0.1604	ppb	00:57:43
2	Zn 213.857†	777.6	-12.4	-0.1341	ug/L	-0.1341	ppb	00:58:03
2	SiO2†	693.7	139.8	10.674	ug/L	10.674	ppb	00:58:39
3	Sc Radial	4766.8	4766.8	100	%			00:56:51
3	Y RADIAL	5054.3	5054.3	100.3	%			00:56:51
3	Al 396.153Radial†	-72.4	10.4	9.5007	ug/L	9.5007	ppb	00:57:11
3	Ca 317.933Radial†	21.1	2.7	4.8676	ug/L	4.8676	ppb	00:57:11
3	Fe 238.204 Radial†	8.1	0.8	8.2300	ug/L	8.2300	ppb	00:57:11
3	K 766.490 Radial†	2702.1	384.7	72.659	ug/L	72.659	ppb	00:56:51
3	Mg 279.077 IEC†	0.4	-1.7	-68.200	ug/L	-68.200	ppb	00:57:11
3	Na 589.592 Radial†	-939.0	-198.2	-60.313	ug/L	-60.313	ppb	00:56:51
3	Sr 421.552†	28.3	9.3	0.0659	ug/L	0.0659	ppb	00:56:51
3	Sc 361.383	790041.0	790041.0	99.902	%			00:58:09
3	Y 371.029	709066.5	709066.5	100.29	%			00:58:09
3	Ag 328.068†	163.4	-12.9	-0.0577	ug/L	-0.0577	ppb	00:58:09
3	As 188.979†	-36.4	-7.8	-3.4091	ug/L	-3.4091	ppb	00:58:29
3	B 249.677†	-222.8	1.2	0.0275	ug/L	0.0275	ppb	00:58:29
3	Ba 233.527†	-6.1	-2.1	-0.0241	ug/L	-0.0241	ppb	00:58:29
3	Be 313.107†	-9146.8	176.8	0.0696	ug/L	0.0696	ppb	00:58:09
3	Cd 226.502†	-184.3	-1.9	-0.0269	ug/L	-0.0269	ppb	00:58:29
3	Co 228.616†	-52.4	11.9	0.3530	ug/L	0.3530	ppb	00:58:29
3	Cr 267.716†	85.5	24.3	0.3265	ug/L	0.3265	ppb	00:58:29
3	Cu 324.752†	7725.3	9.1	0.0365	ug/L	0.0365	ppb	00:58:09
3	Mn 257.610†	475.4	45.4	0.0750	ug/L	0.0750	ppb	00:58:29
3	Mo 202.031†	13.8	1.8	0.1621	ug/L	0.1621	ppb	00:58:29
3	Ni 231.604†	96.2	15.8	0.4887	ug/L	0.4887	ppb	00:58:29
3	P 214.914†	217.8	19.2	10.395	ug/L	10.395	ppb	00:58:29
3	Pb 220.353†	-69.9	-12.4	-1.9703	ug/L	-1.9703	ppb	00:58:29
3	S 181.975 Axial†	40.1	-0.9	-1.1660	ug/L	-1.1660	ppb	00:58:29
3	Sb 206.836†	37.2	4.3	1.6929	ug/L	1.6929	ppb	00:58:29
3	Se 196.026†	-21.2	-2.2	-1.3105	ug/L	-1.3105	ppb	00:58:29
3	Si 251.611†	693.3	142.8	5.0905	ug/L	5.0905	ppb	00:58:29
3	Sn 189.927†	11.6	-1.5	-0.3349	ug/L	-0.3349	ppb	00:58:29
3	Ti 334.940†	-1235.1	98.4	0.2031	ug/L	0.2031	ppb	00:58:09
3	Tl 190.801†	-28.8	6.9	3.1122	ug/L	3.1122	ppb	00:58:29
3	U 409.014†	-2502.3	-136.2	-4.5171	ug/L	-4.5171	ppb	00:58:09
3	V 292.402†	-1634.3	23.4	0.1727	ug/L	0.1727	ppb	00:58:09
3	Zn 213.857†	775.7	-20.8	-0.2279	ug/L	-0.2279	ppb	00:58:29
3	SiO2†	690.3	130.7	9.9961	ug/L	9.9961	ppb	00:58:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	789406.0	99.822	%	0.7077				0.71%
Sc Radial	4935.2	104	%	8.1				7.74%
Y 371.029	708984.4	100.28	%	0.779				0.78%
Y RADIAL	5237.5	103.9	%	7.81				7.51%
Ag 328.068†	47.1	0.2391	ug/L	0.39587	0.2391	ppb	0.39587	165.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.8	8.9561	ug/L	0.79153	8.9561	ppb	0.79153	8.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-0.4415	ug/L	3.57178	-0.4415	ppb	3.57178	809.09%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	20.5	0.5102	ug/L	0.54564	0.5102	ppb	0.54564	106.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.8	0.1251	ug/L	0.12935	0.1251	ppb	0.12935	103.42%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	276.4	0.1084	ug/L	0.03359	0.1084	ppb	0.03359	30.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.6	6.3793	ug/L	2.19654	6.3793	ppb	2.19654	34.43%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                2.4      0.0329 ug/L       0.14743      0.0329 ppb        0.14743 448.70%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.8      0.2025 ug/L       0.14857      0.2025 ppb        0.14857  73.38%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               18.5      0.2484 ug/L       0.14779      0.2484 ppb        0.14779  59.49%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               12.1      0.0469 ug/L       0.10829      0.0469 ppb        0.10829 230.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.6     -6.1930 ug/L      14.86278     -6.1930 ppb       14.86278 239.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        231.8      43.782 ug/L       32.9414      43.782 ppb        32.9414  75.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.1     -44.583 ug/L       20.4731     -44.583 ppb        20.4731  45.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               55.5      0.0884 ug/L       0.03712      0.0884 ppb        0.03712  42.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.4      0.4872 ug/L       0.39731      0.4872 ppb        0.39731  81.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -110.0     -33.459 ug/L       33.5586     -33.459 ppb        33.5586 100.30%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               17.3      0.5330 ug/L       0.04425      0.5330 ppb        0.04425   8.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 8.3      4.5237 ug/L       5.60439      4.5237 ppb        5.60439 123.89%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.6     -0.7280 ug/L       1.19594     -0.7280 ppb        1.19594 164.28%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.2      3.9387 ug/L       4.67690      3.9387 ppb        4.67690 118.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.3      1.6833 ug/L       1.42233      1.6833 ppb        1.42233  84.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.2     -1.9066 ug/L       0.72483     -1.9066 ppb        0.72483  38.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              137.3      4.8899 ug/L       0.54802      4.8899 ppb        0.54802  11.21%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.6     -0.1415 ug/L       0.61693     -0.1415 ppb        0.61693 436.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                5.1      0.0361 ug/L       0.11878      0.0361 ppb        0.11878 329.01%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               59.3      0.1238 ug/L       0.07701      0.1238 ppb        0.07701  62.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.9      2.6667 ug/L       1.70414      2.6667 ppb        1.70414  63.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -140.3     -4.6522 ug/L       2.86354     -4.6522 ppb        2.86354  61.55%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                22.5      0.1726 ug/L       0.01215      0.1726 ppb        0.01215   7.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -17.6     -0.1913 ug/L       0.05020     -0.1913 ppb        0.05020  26.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    131.3      10.035 ug/L        0.6217      10.035 ppb         0.6217   6.20%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 62
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/5/2010 01:29:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4759.6	4759.6	100	%			01:30:59
1	Y RADIAL	5017.4	5017.4	99.55	%			01:30:59
1	Al 396.153Radial†	5477.8	5546.8	5054.7	ug/L	5054.7	ppb	01:30:59
1	Ca 317.933Radial†	2822.2	2797.0	5005.3	ug/L	5005.3	ppb	01:31:19
1	Fe 238.204 Radial†	484.4	476.0	4955.2	ug/L	4955.2	ppb	01:31:19
1	K 766.490 Radial†	29854.6	27474.6	5181.9	ug/L	5181.9	ppb	01:30:59
1	Mg 279.077 IEC†	135.0	132.5	5221.8	ug/L	5221.8	ppb	01:31:19
1	Na 589.592 Radial†	30155.8	30818.8	9377.8	ug/L	9377.8	ppb	01:30:59
1	Sr 421.552†	70887.0	70693.9	503.72	ug/L	503.72	ppb	01:30:59
1	Sc 361.383	802133.5	802133.5	101.43	%			01:32:16
1	Y 371.029	709408.0	709408.0	100.34	%			01:32:16
1	Ag 328.068†	100927.4	99326.5	501.99	ug/L	501.99	ppb	01:32:21
1	As 188.979†	1146.9	1159.3	508.19	ug/L	508.19	ppb	01:32:41
1	B 249.677†	19688.8	19635.1	486.03	ug/L	486.03	ppb	01:32:21
1	Ba 233.527†	43782.2	43168.3	501.85	ug/L	501.85	ppb	01:32:21
1	Be 313.107†	1299248.8	1290243.5	505.92	ug/L	505.92	ppb	01:32:16
1	Cd 226.502†	36794.6	36457.9	501.09	ug/L	501.09	ppb	01:32:21
1	Co 228.616†	17329.5	17149.3	510.30	ug/L	510.30	ppb	01:32:21
1	Cr 267.716†	38278.8	37677.3	503.01	ug/L	503.01	ppb	01:32:21
1	Cu 324.752†	144317.9	134557.3	496.29	ug/L	496.29	ppb	01:32:21
1	Mn 257.610†	323534.5	318537.6	500.72	ug/L	500.72	ppb	01:32:21
1	Mo 202.031†	5635.6	5544.0	501.68	ug/L	501.68	ppb	01:32:41
1	Ni 231.604†	16602.1	16287.3	502.53	ug/L	502.53	ppb	01:32:21
1	P 214.914†	4869.9	4602.4	2400.0	ug/L	2400.0	ppb	01:32:41
1	Pb 220.353†	3151.7	3164.7	504.23	ug/L	504.23	ppb	01:32:41
1	S 181.975 Axial†	850.6	797.5	989.72	ug/L	989.72	ppb	01:32:41
1	Sb 206.836†	1288.8	1237.8	503.22	ug/L	503.22	ppb	01:32:41
1	Se 196.026†	823.2	830.5	506.17	ug/L	506.17	ppb	01:32:41
1	Si 251.611†	71216.2	69659.9	2478.1	ug/L	2478.1	ppb	01:32:21
1	Sn 189.927†	2216.0	2171.7	496.92	ug/L	496.92	ppb	01:32:41
1	Ti 334.940†	253349.4	251108.4	497.32	ug/L	497.32	ppb	01:32:21
1	Tl 190.801†	1092.2	1112.5	507.68	ug/L	507.68	ppb	01:32:41
1	U 409.014†	12724.9	14913.9	492.83	ug/L	492.83	ppb	01:32:21
1	V 292.402†	63621.1	64382.5	506.66	ug/L	506.66	ppb	01:32:21
1	Zn 213.857†	48378.7	46898.6	499.32	ug/L	499.32	ppb	01:32:21
1	SiO2†	71296.4	69729.8	5322.3	ug/L	5322.3	ppb	01:33:48
2	Sc Radial	4671.2	4671.2	98.4	%			01:31:24
2	Y RADIAL	4941.0	4941.0	98.03	%			01:31:24
2	Al 396.153Radial†	5360.3	5530.8	5039.9	ug/L	5039.9	ppb	01:31:24
2	Ca 317.933Radial†	2843.3	2871.7	5139.0	ug/L	5139.0	ppb	01:31:44
2	Fe 238.204 Radial†	491.2	492.0	5121.6	ug/L	5121.6	ppb	01:31:44
2	K 766.490 Radial†	29348.7	27523.8	5191.2	ug/L	5191.2	ppb	01:31:24
2	Mg 279.077 IEC†	132.3	132.3	5214.1	ug/L	5214.1	ppb	01:31:44
2	Na 589.592 Radial†	29352.9	30571.9	9302.6	ug/L	9302.6	ppb	01:31:24
2	Sr 421.552†	68965.0	70078.2	499.33	ug/L	499.33	ppb	01:31:24
2	Sc 361.383	795604.3	795604.3	100.61	%			01:32:47
2	Y 371.029	704741.1	704741.1	99.682	%			01:32:47
2	Ag 328.068†	101283.5	100497.0	507.93	ug/L	507.93	ppb	01:32:52
2	As 188.979†	1151.0	1172.7	514.09	ug/L	514.09	ppb	01:33:12
2	B 249.677†	19754.8	19860.1	491.59	ug/L	491.59	ppb	01:32:52
2	Ba 233.527†	43806.0	43546.2	506.25	ug/L	506.25	ppb	01:32:52
2	Be 313.107†	1287476.4	1289054.0	505.47	ug/L	505.47	ppb	01:32:47
2	Cd 226.502†	36700.1	36661.6	503.88	ug/L	503.88	ppb	01:32:52
2	Co 228.616†	17308.9	17269.0	513.85	ug/L	513.85	ppb	01:32:52
2	Cr 267.716†	38237.7	37946.1	506.60	ug/L	506.60	ppb	01:32:52
2	Cu 324.752†	145009.7	136412.5	503.14	ug/L	503.14	ppb	01:32:52
2	Mn 257.610†	323563.1	321183.8	504.89	ug/L	504.89	ppb	01:32:52
2	Mo 202.031†	5628.0	5582.1	505.13	ug/L	505.13	ppb	01:33:12
2	Ni 231.604†	16559.2	16378.9	505.36	ug/L	505.36	ppb	01:32:52

2	P 214.914†	4851.2	4623.2	2409.8 ug/L	2409.8 ppb	01:33:12
2	Pb 220.353†	3136.6	3175.2	505.88 ug/L	505.88 ppb	01:33:12
2	S 181.975 Axial†	848.2	802.1	995.38 ug/L	995.38 ppb	01:33:12
2	Sb 206.836†	1302.9	1262.2	512.89 ug/L	512.89 ppb	01:33:12
2	Se 196.026†	839.9	853.8	520.37 ug/L	520.37 ppb	01:33:12
2	Si 251.611†	71332.8	70352.0	2502.8 ug/L	2502.8 ppb	01:32:52
2	Sn 189.927†	2202.0	2175.7	497.84 ug/L	497.84 ppb	01:33:12
2	Ti 334.940†	253864.4	253670.1	502.41 ug/L	502.41 ppb	01:32:52
2	Tl 190.801†	1092.3	1121.5	511.79 ug/L	511.79 ppb	01:33:12
2	U 409.014†	12818.9	15110.3	499.31 ug/L	499.31 ppb	01:32:52
2	V 292.402†	63789.9	65065.0	511.99 ug/L	511.99 ppb	01:32:52
2	Zn 213.857†	48367.3	47278.7	503.35 ug/L	503.35 ppb	01:32:52
2	SiO2†	71690.7	70698.5	5396.3 ug/L	5396.3 ppb	01:33:53
3	Sc Radial	4694.3	4694.3	98.9 %		01:31:49
3	Y RADIAL	4932.7	4932.7	97.87 %		01:31:49
3	Al 396.153Radial†	5396.6	5540.8	5049.2 ug/L	5049.2 ppb	01:31:49
3	Ca 317.933Radial†	2796.7	2810.3	5029.2 ug/L	5029.2 ppb	01:32:09
3	Fe 238.204 Radial†	483.7	482.0	5017.6 ug/L	5017.6 ppb	01:32:09
3	K 766.490 Radial†	29342.9	27371.4	5162.5 ug/L	5162.5 ppb	01:31:49
3	Mg 279.077 IEC†	131.5	130.9	5156.9 ug/L	5156.9 ppb	01:32:09
3	Na 589.592 Radial†	29561.5	30636.2	9322.2 ug/L	9322.2 ppb	01:31:49
3	Sr 421.552†	69372.0	70145.5	499.81 ug/L	499.81 ppb	01:31:49
3	Sc 361.383	801885.5	801885.5	101.40 %		01:33:17
3	Y 371.029	709746.6	709746.6	100.39 %		01:33:17
3	Ag 328.068†	100910.2	99340.3	502.08 ug/L	502.08 ppb	01:33:23
3	As 188.979†	1145.5	1158.3	507.77 ug/L	507.77 ppb	01:33:43
3	B 249.677†	19726.4	19678.2	487.10 ug/L	487.10 ppb	01:33:23
3	Ba 233.527†	43826.7	43225.5	502.52 ug/L	502.52 ppb	01:33:23
3	Be 313.107†	1296244.5	1287677.0	504.92 ug/L	504.92 ppb	01:33:17
3	Cd 226.502†	36759.3	36434.3	500.76 ug/L	500.76 ppb	01:33:23
3	Co 228.616†	17318.3	17143.5	510.12 ug/L	510.12 ppb	01:33:23
3	Cr 267.716†	38262.4	37672.8	502.95 ug/L	502.95 ppb	01:33:23
3	Cu 324.752†	144400.4	134682.6	496.76 ug/L	496.76 ppb	01:33:23
3	Mn 257.610†	323962.6	319058.4	501.54 ug/L	501.54 ppb	01:33:23
3	Mo 202.031†	5620.8	5531.2	500.52 ug/L	500.52 ppb	01:33:43
3	Ni 231.604†	16631.9	16321.8	503.59 ug/L	503.59 ppb	01:33:23
3	P 214.914†	4859.0	4593.1	2394.8 ug/L	2394.8 ppb	01:33:43
3	Pb 220.353†	3149.6	3163.6	504.04 ug/L	504.04 ppb	01:33:43
3	S 181.975 Axial†	855.5	802.7	996.12 ug/L	996.12 ppb	01:33:43
3	Sb 206.836†	1292.0	1241.3	504.57 ug/L	504.57 ppb	01:33:43
3	Se 196.026†	832.0	839.5	511.65 ug/L	511.65 ppb	01:33:43
3	Si 251.611†	71281.7	69746.2	2481.2 ug/L	2481.2 ppb	01:33:23
3	Sn 189.927†	2210.6	2167.0	495.84 ug/L	495.84 ppb	01:33:43
3	Ti 334.940†	253418.5	251253.7	497.62 ug/L	497.62 ppb	01:33:23
3	Tl 190.801†	1078.8	1099.6	501.87 ug/L	501.87 ppb	01:33:43
3	U 409.014†	12745.0	14937.6	493.61 ug/L	493.61 ppb	01:33:23
3	V 292.402†	63688.1	64468.0	507.29 ug/L	507.29 ppb	01:33:23
3	Zn 213.857†	48392.8	46927.2	499.61 ug/L	499.61 ppb	01:33:23
3	SiO2†	70775.0	69237.3	5284.6 ug/L	5284.6 ppb	01:33:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	799874.4	101.15	%	0.468				0.46%
Sc Radial	4708.4	99.2	%	0.97				0.97%
Y 371.029	707965.2	100.14	%	0.396				0.40%
Y RADIAL	4963.7	98.48	%	0.926				0.94%
Ag 328.068†	99721.3	504.00	ug/L	3.407	504.00	ppb	3.407	0.68%
QC value within limits for Ag 328.068 Recovery = 100.80%								
Al 396.153Radial†	5539.4	5047.9	ug/L	7.49	5047.9	ppb	7.49	0.15%
QC value within limits for Al 396.153Radial Recovery = 100.96%								
As 188.979†	1163.4	510.02	ug/L	3.532	510.02	ppb	3.532	0.69%
QC value within limits for As 188.979 Recovery = 102.00%								
B 249.677†	19724.5	488.24	ug/L	2.950	488.24	ppb	2.950	0.60%
QC value within limits for B 249.677 Recovery = 97.65%								
Ba 233.527†	43313.3	503.54	ug/L	2.371	503.54	ppb	2.371	0.47%
QC value within limits for Ba 233.527 Recovery = 100.71%								
Be 313.107†	1288991.5	505.43	ug/L	0.502	505.43	ppb	0.502	0.10%
QC value within limits for Be 313.107 Recovery = 101.09%								
Ca 317.933Radial†	2826.3	5057.8	ug/L	71.30	5057.8	ppb	71.30	1.41%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.16%
Cd 226.502†            36517.9      501.91 ug/L         1.712      501.91 ppb          1.712   0.34%
   QC value within limits for Cd 226.502  Recovery = 100.38%
Co 228.616†            17187.3      511.42 ug/L         2.106      511.42 ppb          2.106   0.41%
   QC value within limits for Co 228.616  Recovery = 102.28%
Cr 267.716†            37765.4      504.19 ug/L         2.091      504.19 ppb          2.091   0.41%
   QC value within limits for Cr 267.716  Recovery = 100.84%
Cu 324.752†           135217.5      498.73 ug/L         3.827      498.73 ppb          3.827   0.77%
   QC value within limits for Cu 324.752  Recovery = 99.75%
Fe 238.204 Radial†       483.3      5031.5 ug/L         84.03      5031.5 ppb          84.03   1.67%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.63%
K 766.490 Radial†      27456.6      5178.6 ug/L         14.67      5178.6 ppb          14.67   0.28%
   QC value within limits for K 766.490 Radial  Recovery = 103.57%
Mg 279.077 IEC†          131.9      5197.6 ug/L         35.45      5197.6 ppb          35.45   0.68%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.95%
Mn 257.610†           319593.3      502.38 ug/L         2.210      502.38 ppb          2.210   0.44%
   QC value within limits for Mn 257.610  Recovery = 100.48%
Mo 202.031†             5552.5      502.44 ug/L         2.401      502.44 ppb          2.401   0.48%
   QC value within limits for Mo 202.031  Recovery = 100.49%
Na 589.592 Radial†     30675.6      9334.2 ug/L         38.98      9334.2 ppb          38.98   0.42%
   QC value within limits for Na 589.592 Radial  Recovery = 93.34%
Ni 231.604†            16329.3      503.83 ug/L         1.427      503.83 ppb          1.427   0.28%
   QC value within limits for Ni 231.604  Recovery = 100.77%
P 214.914†              4606.2      2401.6 ug/L          7.61      2401.6 ppb           7.61   0.32%
   QC value within limits for P 214.914  Recovery = 96.06%
Pb 220.353†             3167.8      504.72 ug/L         1.014      504.72 ppb          1.014   0.20%
   QC value within limits for Pb 220.353  Recovery = 100.94%
S 181.975 Axial†         800.7      993.74 ug/L         3.499      993.74 ppb          3.499   0.35%
   QC value within limits for S 181.975 Axial  Recovery = 99.37%
Sb 206.836†             1247.1      506.89 ug/L         5.236      506.89 ppb          5.236   1.03%
   QC value within limits for Sb 206.836  Recovery = 101.38%
Se 196.026†              841.3      512.73 ug/L         7.159      512.73 ppb          7.159   1.40%
   QC value within limits for Se 196.026  Recovery = 102.55%
Si 251.611†            69919.4      2487.4 ug/L         13.42      2487.4 ppb          13.42   0.54%
   QC value within limits for Si 251.611  Recovery = 99.50%
Sn 189.927†             2171.4      496.87 ug/L         0.998      496.87 ppb          0.998   0.20%
   QC value within limits for Sn 189.927  Recovery = 99.37%
Sr 421.552†            70305.9      500.95 ug/L         2.407      500.95 ppb          2.407   0.48%
   QC value within limits for Sr 421.552  Recovery = 100.19%
Ti 334.940†           252010.7      499.11 ug/L         2.857      499.11 ppb          2.857   0.57%
   QC value within limits for Ti 334.940  Recovery = 99.82%
Tl 190.801†             1111.2      507.11 ug/L         4.984      507.11 ppb          4.984   0.98%
   QC value within limits for Tl 190.801  Recovery = 101.42%
U 409.014†             14987.3      495.25 ug/L         3.540      495.25 ppb          3.540   0.71%
   QC value within limits for U 409.014  Recovery = 99.05%
V 292.402†             64638.5      508.65 ug/L         2.911      508.65 ppb          2.911   0.57%
   QC value within limits for V 292.402  Recovery = 101.73%
Zn 213.857†            47034.9      500.76 ug/L         2.249      500.76 ppb          2.249   0.45%
   QC value within limits for Zn 213.857  Recovery = 100.15%
SiO2†                  69888.6      5334.4 ug/L         56.82      5334.4 ppb          56.82   1.07%
   QC value within limits for SiO2  Recovery = 99.75%
All analyte(s) passed QC.
```

Sequence No.: 63
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/5/2010 01:36:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4663.3	4663.3	98.2	%			01:38:01
1	Y RADIAL	4979.1	4979.1	98.79	%			01:38:01
1	Al 396.153Radial†	-76.9	4.2	3.8215	ug/L	3.8215	ppb	01:38:21
1	Ca 317.933Radial†	19.3	1.4	2.4416	ug/L	2.4416	ppb	01:38:21
1	Fe 238.204 Radial†	8.2	1.1	11.300	ug/L	11.300	ppb	01:38:21
1	K 766.490 Radial†	2504.5	243.3	45.952	ug/L	45.952	ppb	01:38:01
1	Mg 279.077 IEC†	6.5	4.5	178.16	ug/L	178.16	ppb	01:38:21
1	Na 589.592 Radial†	-868.2	-146.9	-44.686	ug/L	-44.686	ppb	01:38:01
1	Sr 421.552†	4.1	-14.8	-0.1055	ug/L	-0.1055	ppb	01:38:01
1	Sc 361.383	796356.8	796356.8	100.70	%			01:39:18
1	Y 371.029	711397.9	711397.9	100.62	%			01:39:18
1	Ag 328.068†	253.0	74.7	0.3804	ug/L	0.3804	ppb	01:39:23
1	As 188.979†	-35.0	-6.2	-2.6840	ug/L	-2.6840	ppb	01:39:43
1	B 249.677†	-314.0	-87.6	-2.1812	ug/L	-2.1812	ppb	01:39:43
1	Ba 233.527†	5.0	9.0	0.1043	ug/L	0.1043	ppb	01:39:43
1	Be 313.107†	-9194.9	201.6	0.0792	ug/L	0.0792	ppb	01:39:23
1	Cd 226.502†	-187.9	-4.0	-0.0563	ug/L	-0.0563	ppb	01:39:43
1	Co 228.616†	-49.3	15.4	0.4560	ug/L	0.4560	ppb	01:39:43
1	Cr 267.716†	73.0	11.3	0.1511	ug/L	0.1511	ppb	01:39:43
1	Cu 324.752†	7763.1	-14.6	-0.0521	ug/L	-0.0521	ppb	01:39:23
1	Mn 257.610†	476.0	42.3	0.0602	ug/L	0.0602	ppb	01:39:43
1	Mo 202.031†	10.7	-1.4	-0.1258	ug/L	-0.1258	ppb	01:39:43
1	Ni 231.604†	100.7	19.5	0.6008	ug/L	0.6008	ppb	01:39:43
1	P 214.914†	198.1	-2.1	-1.1425	ug/L	-1.1425	ppb	01:39:43
1	Pb 220.353†	-62.9	-5.0	-0.7901	ug/L	-0.7901	ppb	01:39:43
1	S 181.975 Axial†	42.2	0.9	1.1227	ug/L	1.1227	ppb	01:39:43
1	Sb 206.836†	32.3	-0.8	-0.3085	ug/L	-0.3085	ppb	01:39:43
1	Se 196.026†	-12.4	6.6	3.9507	ug/L	3.9507	ppb	01:39:43
1	Si 251.611†	609.0	53.6	1.9145	ug/L	1.9145	ppb	01:39:43
1	Sn 189.927†	16.5	3.3	0.7623	ug/L	0.7623	ppb	01:39:43
1	Ti 334.940†	-1276.9	66.7	0.1190	ug/L	0.1190	ppb	01:39:23
1	Tl 190.801†	-22.0	13.8	6.2671	ug/L	6.2671	ppb	01:39:43
1	U 409.014†	-2460.1	-74.4	-2.4685	ug/L	-2.4685	ppb	01:39:18
1	V 292.402†	-1683.5	-12.4	-0.1015	ug/L	-0.1015	ppb	01:39:23
1	Zn 213.857†	780.5	-22.2	-0.2442	ug/L	-0.2442	ppb	01:39:43
1	SiO2†	655.7	90.8	6.9545	ug/L	6.9545	ppb	01:40:49
2	Sc Radial	4668.5	4668.5	98.3	%			01:38:26
2	Y RADIAL	4955.7	4955.7	98.32	%			01:38:26
2	Al 396.153Radial†	-68.6	12.7	11.625	ug/L	11.625	ppb	01:38:46
2	Ca 317.933Radial†	21.8	3.9	6.9857	ug/L	6.9857	ppb	01:38:46
2	Fe 238.204 Radial†	6.7	-0.4	-4.5673	ug/L	-4.5673	ppb	01:38:46
2	K 766.490 Radial†	2545.1	281.7	53.209	ug/L	53.209	ppb	01:38:26
2	Mg 279.077 IEC†	-1.0	-3.1	-121.65	ug/L	-121.65	ppb	01:38:46
2	Na 589.592 Radial†	-871.8	-149.6	-45.508	ug/L	-45.508	ppb	01:38:26
2	Sr 421.552†	22.8	4.2	0.0301	ug/L	0.0301	ppb	01:38:26
2	Sc 361.383	793883.0	793883.0	100.39	%			01:39:48
2	Y 371.029	709571.4	709571.4	100.37	%			01:39:48
2	Ag 328.068†	271.4	93.9	0.4732	ug/L	0.4732	ppb	01:39:53
2	As 188.979†	-20.0	8.6	3.7555	ug/L	3.7555	ppb	01:40:13
2	B 249.677†	-319.0	-93.5	-2.3254	ug/L	-2.3254	ppb	01:40:13
2	Ba 233.527†	16.1	20.0	0.2316	ug/L	0.2316	ppb	01:40:13
2	Be 313.107†	-9132.4	235.4	0.0920	ug/L	0.0920	ppb	01:39:53
2	Cd 226.502†	-167.7	15.6	0.2145	ug/L	0.2145	ppb	01:40:13
2	Co 228.616†	-56.1	8.5	0.2553	ug/L	0.2553	ppb	01:40:13
2	Cr 267.716†	68.6	7.1	0.0969	ug/L	0.0969	ppb	01:40:13
2	Cu 324.752†	7889.5	135.2	0.5014	ug/L	0.5014	ppb	01:39:53
2	Mn 257.610†	453.7	21.5	0.0383	ug/L	0.0383	ppb	01:40:13
2	Mo 202.031†	22.4	10.4	0.9364	ug/L	0.9364	ppb	01:40:13
2	Ni 231.604†	115.2	34.3	1.0581	ug/L	1.0581	ppb	01:40:13

2	P 214.914†	197.4	-2.2	-1.2831 ug/L	-1.2831 ppb	01:40:13
2	Pb 220.353†	-66.7	-9.0	-1.4171 ug/L	-1.4171 ppb	01:40:13
2	S 181.975 Axial†	45.1	3.9	4.8405 ug/L	4.8405 ppb	01:40:13
2	Sb 206.836†	36.3	3.3	1.2885 ug/L	1.2885 ppb	01:40:13
2	Se 196.026†	-13.0	6.0	3.5449 ug/L	3.5449 ppb	01:40:13
2	Si 251.611†	616.9	63.3	2.2474 ug/L	2.2474 ppb	01:40:13
2	Sn 189.927†	5.0	-8.1	-1.8391 ug/L	-1.8391 ppb	01:40:13
2	Ti 334.940†	-1366.0	-26.0	-0.0384 ug/L	-0.0384 ppb	01:39:53
2	Tl 190.801†	-37.3	-1.5	-0.6821 ug/L	-0.6821 ppb	01:40:13
2	U 409.014†	-2533.1	-154.7	-5.1298 ug/L	-5.1298 ppb	01:39:48
2	V 292.402†	-1696.3	-30.4	-0.2341 ug/L	-0.2341 ppb	01:39:53
2	Zn 213.857†	782.6	-17.7	-0.1973 ug/L	-0.1973 ppb	01:40:13
2	SiO2†	619.1	56.4	4.2874 ug/L	4.2874 ppb	01:40:54
3	Sc Radial	4653.6	4653.6	98.0 %		01:38:51
3	Y RADIAL	4925.4	4925.4	97.72 %		01:38:51
3	Al 396.153Radial†	-67.0	14.1	12.883 ug/L	12.883 ppb	01:39:11
3	Ca 317.933Radial†	21.6	3.8	6.7579 ug/L	6.7579 ppb	01:39:11
3	Fe 238.204 Radial†	6.6	-0.6	-5.9702 ug/L	-5.9702 ppb	01:39:11
3	K 766.490 Radial†	2488.6	232.3	43.885 ug/L	43.885 ppb	01:38:51
3	Mg 279.077 IEC†	5.1	3.1	121.64 ug/L	121.64 ppb	01:39:11
3	Na 589.592 Radial†	-877.0	-157.7	-47.979 ug/L	-47.979 ppb	01:38:51
3	Sr 421.552†	3.1	-15.8	-0.1127 ug/L	-0.1127 ppb	01:38:51
3	Sc 361.383	784001.0	784001.0	99.139 %		01:40:18
3	Y 371.029	700825.0	700825.0	99.128 %		01:40:18
3	Ag 328.068†	246.6	72.3	0.3671 ug/L	0.3671 ppb	01:40:23
3	As 188.979†	-32.2	-3.9	-1.6946 ug/L	-1.6946 ppb	01:40:43
3	B 249.677†	-321.2	-99.8	-2.4812 ug/L	-2.4812 ppb	01:40:43
3	Ba 233.527†	4.5	8.5	0.0979 ug/L	0.0979 ppb	01:40:43
3	Be 313.107†	-9074.7	179.0	0.0703 ug/L	0.0703 ppb	01:40:23
3	Cd 226.502†	-190.0	-9.0	-0.1247 ug/L	-0.1247 ppb	01:40:43
3	Co 228.616†	-58.1	5.8	0.1715 ug/L	0.1715 ppb	01:40:43
3	Cr 267.716†	73.2	12.6	0.1705 ug/L	0.1705 ppb	01:40:43
3	Cu 324.752†	7819.7	163.9	0.6091 ug/L	0.6091 ppb	01:40:23
3	Mn 257.610†	485.2	59.0	0.0871 ug/L	0.0871 ppb	01:40:43
3	Mo 202.031†	14.0	2.2	0.1974 ug/L	0.1974 ppb	01:40:43
3	Ni 231.604†	104.5	24.9	0.7698 ug/L	0.7698 ppb	01:40:43
3	P 214.914†	195.0	-2.1	-1.2604 ug/L	-1.2604 ppb	01:40:43
3	Pb 220.353†	-74.1	-17.3	-2.7380 ug/L	-2.7380 ppb	01:40:43
3	S 181.975 Axial†	39.0	-1.7	-2.1240 ug/L	-2.1240 ppb	01:40:43
3	Sb 206.836†	38.3	5.7	2.2550 ug/L	2.2550 ppb	01:40:43
3	Se 196.026†	-21.7	-2.9	-1.7163 ug/L	-1.7163 ppb	01:40:43
3	Si 251.611†	603.4	57.4	2.0461 ug/L	2.0461 ppb	01:40:43
3	Sn 189.927†	15.7	2.8	0.6364 ug/L	0.6364 ppb	01:40:43
3	Ti 334.940†	-1256.9	67.0	0.1274 ug/L	0.1274 ppb	01:40:23
3	Tl 190.801†	-42.3	-6.9	-3.1469 ug/L	-3.1469 ppb	01:40:43
3	U 409.014†	-2606.7	-260.8	-8.6467 ug/L	-8.6467 ppb	01:40:18
3	V 292.402†	-1681.2	-36.5	-0.2943 ug/L	-0.2943 ppb	01:40:23
3	Zn 213.857†	791.5	1.0	0.0064 ug/L	0.0064 ppb	01:40:43
3	SiO2†	610.3	55.3	4.2243 ug/L	4.2243 ppb	01:40:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	791413.6	100.08	%	0.827				0.83%
Sc Radial	4661.8	98.2	%	0.16				0.16%
Y 371.029	707264.8	100.04	%	0.799				0.80%
Y RADIAL	4953.4	98.28	%	0.535				0.54%
Ag 328.068†	80.3	0.4069	ug/L	0.05783	0.4069	ppb	0.05783	14.21%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.3	9.4431	ug/L	4.90884	9.4431	ppb	4.90884	51.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.2077	ug/L	3.46769	-0.2077	ppb	3.46769	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-93.6	-2.3293	ug/L	0.15003	-2.3293	ppb	0.15003	6.44%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.5	0.1446	ug/L	0.07540	0.1446	ppb	0.07540	52.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	205.3	0.0805	ug/L	0.01089	0.0805	ppb	0.01089	13.53%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.0	5.3951	ug/L	2.56029	5.3951	ppb	2.56029	47.46%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.9      0.0111 ug/L       0.17941      0.0111 ppb        0.17941 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                9.9      0.2943 ug/L       0.14621      0.2943 ppb        0.14621  49.68%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               10.3      0.1395 ug/L       0.03817      0.1395 ppb        0.03817  27.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               94.8      0.3528 ug/L       0.35476      0.3528 ppb        0.35476 100.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.0      0.2543 ug/L       9.59183      0.2543 ppb        9.59183 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        252.4      47.682 ug/L        4.8968      47.682 ppb         4.8968  10.27%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.5      59.380 ug/L      159.3074      59.380 ppb       159.3074 268.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               40.9      0.0618 ug/L       0.02444      0.0618 ppb        0.02444  39.53%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.7      0.3360 ug/L       0.54449      0.3360 ppb        0.54449 162.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -151.4     -46.058 ug/L        1.7138     -46.058 ppb         1.7138   3.72%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               26.2      0.8095 ug/L       0.23123      0.8095 ppb        0.23123  28.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.1     -1.2287 ug/L       0.07552     -1.2287 ppb        0.07552   6.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.4     -1.6484 ug/L       0.99433     -1.6484 ppb        0.99433  60.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.0      1.2797 ug/L       3.48491      1.2797 ppb        3.48491 272.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.7      1.0783 ug/L       1.29462      1.0783 ppb        1.29462 120.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.2      1.9265 ug/L       3.16121      1.9265 ppb        3.16121 164.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               58.1      2.0693 ug/L       0.16762      2.0693 ppb        0.16762   8.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.6     -0.1468 ug/L       1.46693     -0.1468 ppb        1.46693 999.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -8.8     -0.0627 ug/L       0.08044     -0.0627 ppb        0.08044 128.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               35.9      0.0693 ug/L       0.09336      0.0693 ppb        0.09336 134.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.8      0.8127 ug/L       4.88176      0.8127 ppb        4.88176 600.66%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -163.3     -5.4150 ug/L       3.09901     -5.4150 ppb        3.09901  57.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -26.4     -0.2100 ug/L       0.09863     -0.2100 ppb        0.09863  46.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -13.0     -0.1450 ug/L       0.13323     -0.1450 ppb        0.13323  91.88%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     67.5      5.1554 ug/L       1.55840      5.1554 ppb        1.55840  30.23%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 71
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/5/2010 02:31:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4816.7	4816.7	101	%			02:33:06
1	Y RADIAL	5084.0	5084.0	100.9	%			02:33:06
1	Al 396.153Radial†	5384.9	5390.5	4909.8	ug/L	4909.8	ppb	02:33:06
1	Ca 317.933Radial†	2743.6	2686.1	4807.0	ug/L	4807.0	ppb	02:33:26
1	Fe 238.204 Radial†	469.6	455.6	4744.1	ug/L	4744.1	ppb	02:33:26
1	K 766.490 Radial†	29440.8	26713.7	5038.5	ug/L	5038.5	ppb	02:33:06
1	Mg 279.077 IEC†	127.3	123.4	4862.6	ug/L	4862.6	ppb	02:33:26
1	Na 589.592 Radial†	28613.3	28941.8	8806.7	ug/L	8806.7	ppb	02:33:06
1	Sr 421.552†	68005.8	67016.0	477.51	ug/L	477.51	ppb	02:33:06
1	Sc 361.383	749736.4	749736.4	94.806	%			02:34:23
1	Y 371.029	663892.7	663892.7	93.904	%			02:34:23
1	Ag 328.068†	98068.0	103264.3	521.76	ug/L	521.76	ppb	02:34:29
1	As 188.979†	1144.5	1235.8	541.45	ug/L	541.45	ppb	02:34:49
1	B 249.677†	19249.3	20528.1	508.22	ug/L	508.22	ppb	02:34:29
1	Ba 233.527†	42392.5	44719.0	519.87	ug/L	519.87	ppb	02:34:29
1	Be 313.107†	1320484.6	1402162.2	549.75	ug/L	549.75	ppb	02:34:23
1	Cd 226.502†	35805.6	37949.9	521.64	ug/L	521.64	ppb	02:34:29
1	Co 228.616†	16786.9	17771.0	528.84	ug/L	528.84	ppb	02:34:29
1	Cr 267.716†	37114.9	39087.0	521.82	ug/L	521.82	ppb	02:34:29
1	Cu 324.752†	140093.9	140045.4	516.51	ug/L	516.51	ppb	02:34:29
1	Mn 257.610†	313741.7	330500.1	519.51	ug/L	519.51	ppb	02:34:29
1	Mo 202.031†	5639.5	5936.5	537.14	ug/L	537.14	ppb	02:34:49
1	Ni 231.604†	16126.2	16929.3	522.34	ug/L	522.34	ppb	02:34:29
1	P 214.914†	4873.3	4941.5	2580.4	ug/L	2580.4	ppb	02:34:49
1	Pb 220.353†	3160.9	3391.6	540.31	ug/L	540.31	ppb	02:34:49
1	S 181.975 Axial†	851.3	856.9	1063.5	ug/L	1063.5	ppb	02:34:49
1	Sb 206.836†	1310.7	1349.7	548.35	ug/L	548.35	ppb	02:34:49
1	Se 196.026†	826.8	891.1	541.77	ug/L	541.77	ppb	02:34:49
1	Si 251.611†	69289.3	72534.3	2580.2	ug/L	2580.2	ppb	02:34:29
1	Sn 189.927†	2211.3	2319.3	530.63	ug/L	530.63	ppb	02:34:49
1	Ti 334.940†	245177.0	259944.2	514.81	ug/L	514.81	ppb	02:34:29
1	Tl 190.801†	1098.3	1194.1	544.81	ug/L	544.81	ppb	02:34:49
1	U 409.014†	12446.9	15497.4	512.16	ug/L	512.16	ppb	02:34:29
1	V 292.402†	61599.1	66633.3	524.67	ug/L	524.67	ppb	02:34:29
1	Zn 213.857†	46988.9	48766.0	519.26	ug/L	519.26	ppb	02:34:29
1	SiO2†	71739.2	75109.3	5733.0	ug/L	5733.0	ppb	02:35:56
2	Sc Radial	4740.4	4740.4	99.8	%			02:33:31
2	Y RADIAL	4971.1	4971.1	98.63	%			02:33:31
2	Al 396.153Radial†	5335.8	5426.7	4944.3	ug/L	4944.3	ppb	02:33:31
2	Ca 317.933Radial†	2794.4	2780.5	4975.9	ug/L	4975.9	ppb	02:33:51
2	Fe 238.204 Radial†	476.6	470.0	4894.1	ug/L	4894.1	ppb	02:33:51
2	K 766.490 Radial†	29422.8	27162.4	5123.2	ug/L	5123.2	ppb	02:33:31
2	Mg 279.077 IEC†	130.4	128.5	5064.7	ug/L	5064.7	ppb	02:33:51
2	Na 589.592 Radial†	28626.8	29409.0	8948.8	ug/L	8948.8	ppb	02:33:31
2	Sr 421.552†	68042.1	68130.3	485.45	ug/L	485.45	ppb	02:33:31
2	Sc 361.383	787433.3	787433.3	99.573	%			02:34:54
2	Y 371.029	696816.1	696816.1	98.561	%			02:34:54
2	Ag 328.068†	101530.8	101790.0	514.39	ug/L	514.39	ppb	02:34:59
2	As 188.979†	1136.9	1170.4	513.06	ug/L	513.06	ppb	02:35:20
2	B 249.677†	19993.4	20303.5	502.62	ug/L	502.62	ppb	02:34:59
2	Ba 233.527†	43936.3	44128.8	513.02	ug/L	513.02	ppb	02:34:59
2	Be 313.107†	1292107.9	1306984.7	512.49	ug/L	512.49	ppb	02:34:54
2	Cd 226.502†	37157.4	37499.5	515.43	ug/L	515.43	ppb	02:34:59
2	Co 228.616†	17464.2	17603.5	523.81	ug/L	523.81	ppb	02:34:59
2	Cr 267.716†	38514.7	38618.8	515.58	ug/L	515.58	ppb	02:34:59
2	Cu 324.752†	144908.1	137806.2	508.27	ug/L	508.27	ppb	02:34:59
2	Mn 257.610†	324893.8	325857.5	512.22	ug/L	512.22	ppb	02:34:59
2	Mo 202.031†	5621.0	5633.2	509.73	ug/L	509.73	ppb	02:35:20
2	Ni 231.604†	16776.2	16767.7	517.35	ug/L	517.35	ppb	02:34:59

2	P 214.914†	4855.1	4677.1	2438.3 ug/L	2438.3 ppb	02:35:20
2	Pb 220.353†	3140.8	3211.8	511.70 ug/L	511.70 ppb	02:35:20
2	S 181.975 Axial†	856.5	819.1	1016.6 ug/L	1016.6 ppb	02:35:20
2	Sb 206.836†	1294.3	1266.9	514.97 ug/L	514.97 ppb	02:35:20
2	Se 196.026†	841.2	863.8	525.81 ug/L	525.81 ppb	02:35:20
2	Si 251.611†	71598.7	71354.7	2538.5 ug/L	2538.5 ppb	02:34:59
2	Sn 189.927†	2214.9	2211.4	505.99 ug/L	505.99 ppb	02:35:20
2	Ti 334.940†	254350.7	256776.8	508.55 ug/L	508.55 ppb	02:34:59
2	Tl 190.801†	1085.1	1125.5	513.63 ug/L	513.63 ppb	02:35:20
2	U 409.014†	12651.6	15074.5	498.13 ug/L	498.13 ppb	02:34:59
2	V 292.402†	64065.9	66000.2	519.33 ug/L	519.33 ppb	02:34:59
2	Zn 213.857†	48634.2	48045.6	511.54 ug/L	511.54 ppb	02:34:59
2	SiO2†	71396.6	71142.6	5430.2 ug/L	5430.2 ppb	02:36:01
3	Sc Radial	4448.6	4448.6	93.7 %		02:33:56
3	Y RADIAL	4668.1	4668.1	92.62 %		02:33:56
3	Al 396.153Radial†	5447.9	5896.9	5375.0 ug/L	5375.0 ppb	02:33:56
3	Ca 317.933Radial†	2834.7	3007.1	5381.3 ug/L	5381.3 ppb	02:34:16
3	Fe 238.204 Radial†	486.7	512.2	5331.4 ug/L	5331.4 ppb	02:34:16
3	K 766.490 Radial†	29613.0	29298.6	5526.2 ug/L	5526.2 ppb	02:33:56
3	Mg 279.077 IEC†	134.4	141.4	5570.8 ug/L	5570.8 ppb	02:34:16
3	Na 589.592 Radial†	28527.4	31183.8	9488.9 ug/L	9488.9 ppb	02:33:56
3	Sr 421.552†	68599.9	73196.4	521.55 ug/L	521.55 ppb	02:33:56
3	Sc 361.383	791941.6	791941.6	100.14 %		02:35:25
3	Y 371.029	700252.4	700252.4	99.047 %		02:35:25
3	Ag 328.068†	101699.9	101378.4	512.44 ug/L	512.44 ppb	02:35:30
3	As 188.979†	1139.3	1166.3	511.39 ug/L	511.39 ppb	02:35:50
3	B 249.677†	20147.8	20343.3	503.55 ug/L	503.55 ppb	02:35:30
3	Ba 233.527†	44270.3	44211.1	513.98 ug/L	513.98 ppb	02:35:30
3	Be 313.107†	1311886.2	1319347.6	517.33 ug/L	517.33 ppb	02:35:25
3	Cd 226.502†	37275.4	37404.8	514.08 ug/L	514.08 ppb	02:35:30
3	Co 228.616†	17553.2	17592.5	523.47 ug/L	523.47 ppb	02:35:30
3	Cr 267.716†	38728.7	38612.2	515.49 ug/L	515.49 ppb	02:35:30
3	Cu 324.752†	145553.5	137622.2	507.61 ug/L	507.61 ppb	02:35:30
3	Mn 257.610†	326970.8	326074.0	512.58 ug/L	512.58 ppb	02:35:30
3	Mo 202.031†	5625.4	5605.4	507.26 ug/L	507.26 ppb	02:35:50
3	Ni 231.604†	16850.5	16746.0	516.68 ug/L	516.68 ppb	02:35:30
3	P 214.914†	4871.6	4665.8	2432.0 ug/L	2432.0 ppb	02:35:50
3	Pb 220.353†	3149.5	3202.6	510.30 ug/L	510.30 ppb	02:35:50
3	S 181.975 Axial†	857.5	815.2	1011.6 ug/L	1011.6 ppb	02:35:50
3	Sb 206.836†	1301.8	1267.0	514.87 ug/L	514.87 ppb	02:35:50
3	Se 196.026†	835.9	853.7	520.80 ug/L	520.80 ppb	02:35:50
3	Si 251.611†	72016.9	71363.1	2538.8 ug/L	2538.8 ppb	02:35:30
3	Sn 189.927†	2210.8	2194.6	502.20 ug/L	502.20 ppb	02:35:50
3	Ti 334.940†	255701.2	256671.2	508.35 ug/L	508.35 ppb	02:35:30
3	Tl 190.801†	1080.0	1114.2	508.53 ug/L	508.53 ppb	02:35:50
3	U 409.014†	12814.0	15164.3	501.06 ug/L	501.06 ppb	02:35:30
3	V 292.402†	64284.7	65852.3	518.10 ug/L	518.10 ppb	02:35:30
3	Zn 213.857†	48885.3	48018.3	511.19 ug/L	511.19 ppb	02:35:30
3	SiO2†	71963.4	71300.5	5442.3 ug/L	5442.3 ppb	02:36:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	776370.4	98.174	%	2.9306				2.99%
Sc Radial	4668.6	98.3	%	4.09				4.16%
Y 371.029	686987.0	97.171	%	2.8394				2.92%
Y RADIAL	4907.7	97.37	%	4.268				4.38%
Ag 328.068†	102144.2	516.20	ug/L	4.914	516.20	ppb	4.914	0.95%
QC value within limits for Ag 328.068 Recovery = 103.24%								
Al 396.153Radial†	5571.4	5076.4	ug/L	259.20	5076.4	ppb	259.20	5.11%
QC value within limits for Al 396.153Radial Recovery = 101.53%								
As 188.979†	1190.8	521.97	ug/L	16.894	521.97	ppb	16.894	3.24%
QC value within limits for As 188.979 Recovery = 104.39%								
B 249.677†	20391.6	504.80	ug/L	3.001	504.80	ppb	3.001	0.59%
QC value within limits for B 249.677 Recovery = 100.96%								
Ba 233.527†	44353.0	515.62	ug/L	3.708	515.62	ppb	3.708	0.72%
QC value within limits for Ba 233.527 Recovery = 103.12%								
Be 313.107†	1342831.5	526.52	ug/L	20.256	526.52	ppb	20.256	3.85%
QC value within limits for Be 313.107 Recovery = 105.30%								
Ca 317.933Radial†	2824.6	5054.7	ug/L	295.20	5054.7	ppb	295.20	5.84%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.09%
Cd 226.502†            37618.1      517.05 ug/L         4.032      517.05 ppb          4.032   0.78%
   QC value within limits for Cd 226.502  Recovery = 103.41%
Co 228.616†            17655.7      525.37 ug/L         3.010      525.37 ppb          3.010   0.57%
   QC value within limits for Co 228.616  Recovery = 105.07%
Cr 267.716†            38772.7      517.63 ug/L         3.628      517.63 ppb          3.628   0.70%
   QC value within limits for Cr 267.716  Recovery = 103.53%
Cu 324.752†           138491.3      510.80 ug/L         4.960      510.80 ppb          4.960   0.97%
   QC value within limits for Cu 324.752  Recovery = 102.16%
Fe 238.204 Radial†       479.3      4989.9 ug/L        305.12      4989.9 ppb         305.12   6.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.80%
K 766.490 Radial†      27724.9      5229.3 ug/L        260.59      5229.3 ppb         260.59   4.98%
   QC value within limits for K 766.490 Radial  Recovery = 104.59%
Mg 279.077 IEC†          131.1      5166.0 ug/L        364.84      5166.0 ppb         364.84   7.06%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.32%
Mn 257.610†           327477.2      514.77 ug/L         4.107      514.77 ppb          4.107   0.80%
   QC value within limits for Mn 257.610  Recovery = 102.95%
Mo 202.031†             5725.0      518.04 ug/L        16.583      518.04 ppb         16.583   3.20%
   QC value within limits for Mo 202.031  Recovery = 103.61%
Na 589.592 Radial†     29844.9      9081.4 ug/L        359.93      9081.4 ppb         359.93   3.96%
   QC value within limits for Na 589.592 Radial  Recovery = 90.81%
Ni 231.604†            16814.3      518.79 ug/L         3.089      518.79 ppb          3.089   0.60%
   QC value within limits for Ni 231.604  Recovery = 103.76%
P 214.914†              4761.5      2483.6 ug/L         83.93      2483.6 ppb          83.93   3.38%
   QC value within limits for P 214.914  Recovery = 99.34%
Pb 220.353†             3268.7      520.77 ug/L        16.935      520.77 ppb         16.935   3.25%
   QC value within limits for Pb 220.353  Recovery = 104.15%
S 181.975 Axial†         830.4      1030.6 ug/L         28.62      1030.6 ppb          28.62   2.78%
   QC value within limits for S 181.975 Axial  Recovery = 103.06%
Sb 206.836†             1294.6      526.07 ug/L        19.302      526.07 ppb         19.302   3.67%
   QC value within limits for Sb 206.836  Recovery = 105.21%
Se 196.026†              869.5      529.46 ug/L        10.955      529.46 ppb         10.955   2.07%
   QC value within limits for Se 196.026  Recovery = 105.89%
Si 251.611†            71750.7      2552.5 ug/L         24.00      2552.5 ppb          24.00   0.94%
   QC value within limits for Si 251.611  Recovery = 102.10%
Sn 189.927†             2241.8      512.94 ug/L        15.442      512.94 ppb         15.442   3.01%
   QC value within limits for Sn 189.927  Recovery = 102.59%
Sr 421.552†            69447.6      494.83 ug/L        23.471      494.83 ppb         23.471   4.74%
   QC value within limits for Sr 421.552  Recovery = 98.97%
Ti 334.940†           257797.4      510.57 ug/L         3.673      510.57 ppb          3.673   0.72%
   QC value within limits for Ti 334.940  Recovery = 102.11%
Tl 190.801†             1144.6      522.32 ug/L        19.645      522.32 ppb         19.645   3.76%
   QC value within limits for Tl 190.801  Recovery = 104.46%
U 409.014†             15245.4      503.78 ug/L         7.400      503.78 ppb          7.400   1.47%
   QC value within limits for U 409.014  Recovery = 100.76%
V 292.402†             66161.9      520.70 ug/L         3.493      520.70 ppb          3.493   0.67%
   QC value within limits for V 292.402  Recovery = 104.14%
Zn 213.857†            48276.6      514.00 ug/L         4.563      514.00 ppb          4.563   0.89%
   QC value within limits for Zn 213.857  Recovery = 102.80%
SiO2†                  72517.4      5535.1 ug/L        171.42      5535.1 ppb         171.42   3.10%
   QC value within limits for SiO2  Recovery = 103.51%
All analyte(s) passed QC.
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Sequence No.: 72
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/5/2010 02:38:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4613.8	4613.8	97.2	%			02:40:09
1	Y RADIAL	4898.9	4898.9	97.20	%			02:40:09
1	Al 396.153Radial†	-65.2	15.4	14.107	ug/L	14.107	ppb	02:40:29
1	Ca 317.933Radial†	18.9	1.2	2.1248	ug/L	2.1248	ppb	02:40:29
1	Fe 238.204 Radial†	8.3	1.2	12.968	ug/L	12.968	ppb	02:40:29
1	K 766.490 Radial†	2658.6	429.2	81.068	ug/L	81.068	ppb	02:40:09
1	Mg 279.077 IEC†	1.5	-0.6	-24.237	ug/L	-24.237	ppb	02:40:29
1	Na 589.592 Radial†	-905.6	-194.9	-59.301	ug/L	-59.301	ppb	02:40:09
1	Sr 421.552†	53.0	35.6	0.2539	ug/L	0.2539	ppb	02:40:09
1	Sc 361.383	796256.1	796256.1	100.69	%			02:41:26
1	Y 371.029	711528.3	711528.3	100.64	%			02:41:26
1	Ag 328.068†	243.6	65.5	0.3293	ug/L	0.3293	ppb	02:41:26
1	As 188.979†	-23.2	5.5	2.4138	ug/L	2.4138	ppb	02:41:46
1	B 249.677†	-216.0	9.7	0.2399	ug/L	0.2399	ppb	02:41:46
1	Ba 233.527†	18.1	22.0	0.2540	ug/L	0.2540	ppb	02:41:46
1	Be 313.107†	-9037.8	356.5	0.1396	ug/L	0.1396	ppb	02:41:26
1	Cd 226.502†	-182.0	1.9	0.0252	ug/L	0.0252	ppb	02:41:46
1	Co 228.616†	-61.1	3.7	0.1092	ug/L	0.1092	ppb	02:41:46
1	Cr 267.716†	72.9	11.2	0.1480	ug/L	0.1480	ppb	02:41:46
1	Cu 324.752†	7665.6	-110.5	-0.4071	ug/L	-0.4071	ppb	02:41:26
1	Mn 257.610†	493.7	59.9	0.0964	ug/L	0.0964	ppb	02:41:46
1	Mo 202.031†	15.8	3.7	0.3351	ug/L	0.3351	ppb	02:41:46
1	Ni 231.604†	92.0	10.9	0.3355	ug/L	0.3355	ppb	02:41:46
1	P 214.914†	196.6	-3.6	-1.8654	ug/L	-1.8654	ppb	02:41:46
1	Pb 220.353†	-70.3	-12.3	-1.9504	ug/L	-1.9504	ppb	02:41:46
1	S 181.975 Axial†	41.2	-0.1	-0.1427	ug/L	-0.1427	ppb	02:41:46
1	Sb 206.836†	44.4	11.2	4.3893	ug/L	4.3893	ppb	02:41:46
1	Se 196.026†	-22.5	-3.4	-1.9684	ug/L	-1.9684	ppb	02:41:46
1	Si 251.611†	713.1	157.1	5.5972	ug/L	5.5972	ppb	02:41:46
1	Sn 189.927†	8.9	-4.2	-0.9709	ug/L	-0.9709	ppb	02:41:46
1	Ti 334.940†	-1322.6	21.2	0.0441	ug/L	0.0441	ppb	02:41:26
1	Tl 190.801†	-25.0	10.8	4.9199	ug/L	4.9199	ppb	02:41:46
1	U 409.014†	-2377.9	7.0	0.2304	ug/L	0.2304	ppb	02:41:26
1	V 292.402†	-1780.5	-109.0	-0.8439	ug/L	-0.8439	ppb	02:41:26
1	Zn 213.857†	792.1	-10.6	-0.1174	ug/L	-0.1174	ppb	02:41:46
1	SiO2†	692.7	127.6	9.7578	ug/L	9.7578	ppb	02:42:42
2	Sc Radial	4731.8	4731.8	99.7	%			02:40:34
2	Y RADIAL	4988.6	4988.6	98.98	%			02:40:34
2	Al 396.153Radial†	-76.2	6.0	5.4873	ug/L	5.4873	ppb	02:40:54
2	Ca 317.933Radial†	21.9	3.7	6.7031	ug/L	6.7031	ppb	02:40:54
2	Fe 238.204 Radial†	8.2	0.9	9.8442	ug/L	9.8442	ppb	02:40:54
2	K 766.490 Radial†	2589.1	291.2	54.987	ug/L	54.987	ppb	02:40:34
2	Mg 279.077 IEC†	0.6	-1.5	-59.112	ug/L	-59.112	ppb	02:40:54
2	Na 589.592 Radial†	-798.1	-63.7	-19.384	ug/L	-19.384	ppb	02:40:34
2	Sr 421.552†	16.0	-2.9	-0.0207	ug/L	-0.0207	ppb	02:40:34
2	Sc 361.383	798467.7	798467.7	100.97	%			02:41:52
2	Y 371.029	712995.8	712995.8	100.85	%			02:41:52
2	Ag 328.068†	225.7	47.0	0.2382	ug/L	0.2382	ppb	02:41:52
2	As 188.979†	-25.0	3.9	1.6785	ug/L	1.6785	ppb	02:42:12
2	B 249.677†	-188.7	37.3	0.9265	ug/L	0.9265	ppb	02:42:12
2	Ba 233.527†	16.0	19.9	0.2301	ug/L	0.2301	ppb	02:42:12
2	Be 313.107†	-9097.0	322.7	0.1264	ug/L	0.1264	ppb	02:41:52
2	Cd 226.502†	-170.0	14.2	0.1947	ug/L	0.1947	ppb	02:42:12
2	Co 228.616†	-68.1	-3.1	-0.0913	ug/L	-0.0913	ppb	02:42:12
2	Cr 267.716†	58.9	-2.9	-0.0390	ug/L	-0.0390	ppb	02:42:12
2	Cu 324.752†	7729.6	-68.3	-0.2510	ug/L	-0.2510	ppb	02:41:52
2	Mn 257.610†	477.9	42.9	0.0708	ug/L	0.0708	ppb	02:42:12
2	Mo 202.031†	17.1	4.9	0.4470	ug/L	0.4470	ppb	02:42:12
2	Ni 231.604†	97.4	16.0	0.4926	ug/L	0.4926	ppb	02:42:12

2	P 214.914†	202.1	1.3	0.7301	ug/L	0.7301 ppb	02:42:12
2	Pb 220.353†	-58.5	-0.4	-0.0680	ug/L	-0.0680 ppb	02:42:12
2	S 181.975 Axial†	39.2	-2.3	-2.8123	ug/L	-2.8123 ppb	02:42:12
2	Sb 206.836†	30.4	-2.8	-1.0984	ug/L	-1.0984 ppb	02:42:12
2	Se 196.026†	-17.6	1.5	0.9372	ug/L	0.9372 ppb	02:42:12
2	Si 251.611†	694.2	136.3	4.8569	ug/L	4.8569 ppb	02:42:12
2	Sn 189.927†	10.4	-2.7	-0.6270	ug/L	-0.6270 ppb	02:42:12
2	Ti 334.940†	-1312.0	35.3	0.0760	ug/L	0.0760 ppb	02:41:52
2	Tl 190.801†	-29.3	6.7	3.0502	ug/L	3.0502 ppb	02:42:12
2	U 409.014†	-2404.7	-13.1	-0.4347	ug/L	-0.4347 ppb	02:41:52
2	V 292.402†	-1718.7	-42.9	-0.3304	ug/L	-0.3304 ppb	02:41:52
2	Zn 213.857†	793.4	-11.5	-0.1274	ug/L	-0.1274 ppb	02:42:12
2	SiO2†	669.8	103.0	7.8733	ug/L	7.8733 ppb	02:42:47
3	Sc Radial	4709.8	4709.8	99.2	%		02:41:00
3	Y RADIAL	4997.5	4997.5	99.15	%		02:41:00
3	Al 396.153Radial†	-65.8	16.2	14.765	ug/L	14.765 ppb	02:41:20
3	Ca 317.933Radial†	21.3	3.2	5.7581	ug/L	5.7581 ppb	02:41:20
3	Fe 238.204 Radial†	8.0	0.8	8.0512	ug/L	8.0512 ppb	02:41:20
3	K 766.490 Radial†	2622.9	337.4	63.726	ug/L	63.726 ppb	02:41:00
3	Mg 279.077 IEC†	3.0	0.9	34.668	ug/L	34.668 ppb	02:41:20
3	Na 589.592 Radial†	-896.6	-166.8	-50.768	ug/L	-50.768 ppb	02:41:00
3	Sr 421.552†	37.5	18.8	0.1342	ug/L	0.1342 ppb	02:41:00
3	Sc 361.383	799937.5	799937.5	101.15	%		02:42:17
3	Y 371.029	714556.1	714556.1	101.07	%		02:42:17
3	Ag 328.068†	249.5	70.2	0.3555	ug/L	0.3555 ppb	02:42:17
3	As 188.979†	-30.0	-1.1	-0.4638	ug/L	-0.4638 ppb	02:42:37
3	B 249.677†	-231.9	-5.0	-0.1269	ug/L	-0.1269 ppb	02:42:37
3	Ba 233.527†	-5.9	-1.8	-0.0220	ug/L	-0.0220 ppb	02:42:37
3	Be 313.107†	-9138.0	298.7	0.1171	ug/L	0.1171 ppb	02:42:17
3	Cd 226.502†	-191.0	-6.2	-0.0870	ug/L	-0.0870 ppb	02:42:37
3	Co 228.616†	-49.7	15.3	0.4550	ug/L	0.4550 ppb	02:42:37
3	Cr 267.716†	56.6	-5.3	-0.0697	ug/L	-0.0697 ppb	02:42:37
3	Cu 324.752†	7702.9	-108.8	-0.3988	ug/L	-0.3988 ppb	02:42:17
3	Mn 257.610†	480.8	44.9	0.0699	ug/L	0.0699 ppb	02:42:37
3	Mo 202.031†	18.4	6.2	0.5629	ug/L	0.5629 ppb	02:42:37
3	Ni 231.604†	84.6	3.2	0.0970	ug/L	0.0970 ppb	02:42:37
3	P 214.914†	196.9	-4.2	-2.1887	ug/L	-2.1887 ppb	02:42:37
3	Pb 220.353†	-68.5	-10.2	-1.6179	ug/L	-1.6179 ppb	02:42:37
3	S 181.975 Axial†	45.0	3.5	4.2955	ug/L	4.2955 ppb	02:42:37
3	Sb 206.836†	36.0	2.8	1.0910	ug/L	1.0910 ppb	02:42:37
3	Se 196.026†	-23.2	-4.0	-2.3459	ug/L	-2.3459 ppb	02:42:37
3	Si 251.611†	702.4	143.2	5.1009	ug/L	5.1009 ppb	02:42:37
3	Sn 189.927†	12.5	-0.7	-0.1614	ug/L	-0.1614 ppb	02:42:37
3	Ti 334.940†	-1305.8	43.9	0.0864	ug/L	0.0864 ppb	02:42:17
3	Tl 190.801†	-31.6	4.5	2.0305	ug/L	2.0305 ppb	02:42:37
3	U 409.014†	-2501.6	-104.4	-3.4635	ug/L	-3.4635 ppb	02:42:17
3	V 292.402†	-1753.5	-74.2	-0.5754	ug/L	-0.5754 ppb	02:42:17
3	Zn 213.857†	792.5	-13.8	-0.1493	ug/L	-0.1493 ppb	02:42:37
3	SiO2†	677.2	109.1	8.3345	ug/L	8.3345 ppb	02:42:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	798220.4	100.94	%	0.234				0.23%
Sc Radial	4685.1	98.7	%	1.32				1.34%
Y 371.029	713026.7	100.85	%	0.214				0.21%
Y RADIAL	4961.6	98.44	%	1.083				1.10%
Ag 328.068†	60.9	0.3077	ug/L	0.06157	0.3077	ppb	0.06157	20.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.5	11.453	ug/L	5.1769	11.453	ppb	5.1769	45.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.8	1.2095	ug/L	1.49502	1.2095	ppb	1.49502	123.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	14.0	0.3465	ug/L	0.53475	0.3465	ppb	0.53475	154.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.4	0.1540	ug/L	0.15294	0.1540	ppb	0.15294	99.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	326.0	0.1277	ug/L	0.01130	0.1277	ppb	0.01130	8.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.7	4.8620	ug/L	2.41713	4.8620	ppb	2.41713	49.72%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                3.3      0.0443 ug/L       0.14187      0.0443 ppb        0.14187 320.32%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.3      0.1576 ug/L       0.27634      0.1576 ppb        0.27634 175.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                1.0      0.0131 ug/L       0.11784      0.0131 ppb        0.11784 898.78%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -95.8     -0.3523 ug/L       0.08782     -0.3523 ppb        0.08782  24.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.0      10.288 ug/L        2.4881      10.288 ppb         2.4881  24.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        352.6      66.594 ug/L       13.2747      66.594 ppb        13.2747  19.93%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.4     -16.227 ug/L       47.4006     -16.227 ppb        47.4006 292.11%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               49.2      0.0790 ug/L       0.01503      0.0790 ppb        0.01503  19.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.9      0.4484 ug/L       0.11390      0.4484 ppb        0.11390  25.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -141.8     -43.151 ug/L       21.0203     -43.151 ppb        21.0203  48.71%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               10.0      0.3084 ug/L       0.19918      0.3084 ppb        0.19918  64.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.2     -1.1080 ug/L       1.60002     -1.1080 ppb        1.60002 144.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -7.7     -1.2121 ug/L       1.00466     -1.2121 ppb        1.00466  82.89%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.4      0.4468 ug/L       3.59035      0.4468 ppb        3.59035 803.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.7      1.4606 ug/L       2.76243      1.4606 ppb        2.76243 189.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.9     -1.1257 ug/L       1.79647     -1.1257 ppb        1.79647 159.59%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              145.5      5.1850 ug/L       0.37723      5.1850 ppb        0.37723   7.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.6     -0.5864 ug/L       0.40630     -0.5864 ppb        0.40630  69.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               17.2      0.1225 ug/L       0.13767      0.1225 ppb        0.13767 112.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               33.5      0.0688 ug/L       0.02200      0.0688 ppb        0.02200  31.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                7.4      3.3335 ug/L       1.46537      3.3335 ppb        1.46537  43.96%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -36.8     -1.2226 ug/L       1.96894     -1.2226 ppb        1.96894 161.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -75.4     -0.5832 ug/L       0.25684     -0.5832 ppb        0.25684  44.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -11.9     -0.1314 ug/L       0.01632     -0.1314 ppb        0.01632  12.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    113.3      8.6552 ug/L       0.98237      8.6552 ppb        0.98237  11.35%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 81
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/5/2010 03:41:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4662.8	4662.8	98.2	%			03:43:24
1	Y RADIAL	4905.1	4905.1	97.32	%			03:43:24
1	Al 396.153Radial†	5446.9	5628.8	5129.6	ug/L	5129.6	ppb	03:43:24
1	Ca 317.933Radial†	2842.6	2876.2	5147.1	ug/L	5147.1	ppb	03:43:44
1	Fe 238.204 Radial†	485.1	486.7	5066.8	ug/L	5066.8	ppb	03:43:44
1	K 766.490 Radial†	29702.3	27937.8	5269.4	ug/L	5269.4	ppb	03:43:24
1	Mg 279.077 IEC†	134.4	134.8	5309.9	ug/L	5309.9	ppb	03:43:44
1	Na 589.592 Radial†	29254.7	30525.9	9288.7	ug/L	9288.7	ppb	03:43:24
1	Sr 421.552†	69526.2	70776.6	504.30	ug/L	504.30	ppb	03:43:24
1	Sc 361.383	800142.7	800142.7	101.18	%			03:44:41
1	Y 371.029	708277.9	708277.9	100.18	%			03:44:41
1	Ag 328.068†	101179.9	99823.6	504.53	ug/L	504.53	ppb	03:44:46
1	As 188.979†	1158.5	1173.7	514.47	ug/L	514.47	ppb	03:45:06
1	B 249.677†	19583.6	19579.4	484.62	ug/L	484.62	ppb	03:44:46
1	Ba 233.527†	43882.3	43374.6	504.26	ug/L	504.26	ppb	03:44:46
1	Be 313.107†	1318378.2	1312336.9	514.57	ug/L	514.57	ppb	03:44:41
1	Cd 226.502†	36988.1	36739.4	504.95	ug/L	504.95	ppb	03:44:46
1	Co 228.616†	17389.6	17251.2	513.33	ug/L	513.33	ppb	03:44:46
1	Cr 267.716†	38423.0	37913.7	506.16	ug/L	506.16	ppb	03:44:46
1	Cu 324.752†	144548.8	135139.5	498.44	ug/L	498.44	ppb	03:44:46
1	Mn 257.610†	324420.8	320207.2	503.35	ug/L	503.35	ppb	03:44:46
1	Mo 202.031†	5653.8	5575.9	504.57	ug/L	504.57	ppb	03:45:06
1	Ni 231.604†	16686.0	16410.9	506.34	ug/L	506.34	ppb	03:44:46
1	P 214.914†	4898.1	4642.2	2421.2	ug/L	2421.2	ppb	03:45:06
1	Pb 220.353†	3164.8	3185.4	507.53	ug/L	507.53	ppb	03:45:06
1	S 181.975 Axial†	856.0	805.0	999.00	ug/L	999.00	ppb	03:45:06
1	Sb 206.836†	1294.7	1246.8	506.82	ug/L	506.82	ppb	03:45:06
1	Se 196.026†	844.3	853.4	520.01	ug/L	520.01	ppb	03:45:06
1	Si 251.611†	71531.9	70146.6	2495.5	ug/L	2495.5	ppb	03:44:46
1	Sn 189.927†	2218.3	2179.4	498.69	ug/L	498.69	ppb	03:45:06
1	Ti 334.940†	253903.1	252277.0	499.64	ug/L	499.64	ppb	03:44:46
1	Tl 190.801†	1100.1	1122.9	512.43	ug/L	512.43	ppb	03:45:06
1	U 409.014†	12840.8	15059.7	497.64	ug/L	497.64	ppb	03:44:46
1	V 292.402†	63856.9	64771.6	509.71	ug/L	509.71	ppb	03:44:46
1	Zn 213.857†	48492.0	47129.2	501.75	ug/L	501.75	ppb	03:44:46
1	SiO2†	72732.8	71324.3	5444.2	ug/L	5444.2	ppb	03:46:13
2	Sc Radial	4566.7	4566.7	96.2	%			03:43:49
2	Y RADIAL	4816.2	4816.2	95.56	%			03:43:49
2	Al 396.153Radial†	5380.9	5676.8	5172.5	ug/L	5172.5	ppb	03:43:49
2	Ca 317.933Radial†	2794.2	2886.8	5166.0	ug/L	5166.0	ppb	03:44:09
2	Fe 238.204 Radial†	478.8	490.5	5106.8	ug/L	5106.8	ppb	03:44:09
2	K 766.490 Radial†	29385.4	28244.4	5327.3	ug/L	5327.3	ppb	03:43:49
2	Mg 279.077 IEC†	133.2	136.3	5373.0	ug/L	5373.0	ppb	03:44:09
2	Na 589.592 Radial†	28612.7	30484.8	9276.2	ug/L	9276.2	ppb	03:43:49
2	Sr 421.552†	68067.9	70749.2	504.11	ug/L	504.11	ppb	03:43:49
2	Sc 361.383	772754.2	772754.2	97.717	%			03:45:12
2	Y 371.029	683575.4	683575.4	96.688	%			03:45:12
2	Ag 328.068†	103274.0	105510.8	533.21	ug/L	533.21	ppb	03:45:17
2	As 188.979†	1164.8	1220.6	535.10	ug/L	535.10	ppb	03:45:37
2	B 249.677†	20144.6	20839.6	515.87	ug/L	515.87	ppb	03:45:17
2	Ba 233.527†	44821.7	45873.1	533.30	ug/L	533.30	ppb	03:45:17
2	Be 313.107†	1346225.7	1387017.0	543.85	ug/L	543.85	ppb	03:45:12
2	Cd 226.502†	37686.5	38749.7	532.61	ug/L	532.61	ppb	03:45:17
2	Co 228.616†	17752.4	18231.6	542.49	ug/L	542.49	ppb	03:45:17
2	Cr 267.716†	39204.6	40059.5	534.81	ug/L	534.81	ppb	03:45:17
2	Cu 324.752†	147953.3	143686.9	529.96	ug/L	529.96	ppb	03:45:17
2	Mn 257.610†	331454.7	338769.7	532.51	ug/L	532.51	ppb	03:45:17
2	Mo 202.031†	5696.9	5818.1	526.47	ug/L	526.47	ppb	03:45:37
2	Ni 231.604†	17056.6	17374.7	536.08	ug/L	536.08	ppb	03:45:17

2	P 214.914†	4917.8	4833.9	2519.1 ug/L	2519.1 ppb	03:45:37
2	Pb 220.353†	3180.9	3312.7	527.79 ug/L	527.79 ppb	03:45:37
2	S 181.975 Axial†	866.5	845.7	1049.5 ug/L	1049.5 ppb	03:45:37
2	Sb 206.836†	1319.9	1317.8	535.45 ug/L	535.45 ppb	03:45:37
2	Se 196.026†	849.8	888.6	541.08 ug/L	541.08 ppb	03:45:37
2	Si 251.611†	73105.5	74262.7	2642.0 ug/L	2642.0 ppb	03:45:17
2	Sn 189.927†	2227.4	2266.3	518.57 ug/L	518.57 ppb	03:45:37
2	Ti 334.940†	259503.8	266902.7	528.60 ug/L	528.60 ppb	03:45:17
2	Tl 190.801†	1090.1	1151.3	525.49 ug/L	525.49 ppb	03:45:37
2	U 409.014†	12916.0	15586.4	515.04 ug/L	515.04 ppb	03:45:17
2	V 292.402†	65324.4	68510.2	539.04 ug/L	539.04 ppb	03:45:17
2	Zn 213.857†	49479.7	49838.6	530.63 ug/L	530.63 ppb	03:45:17
2	SiO2†	72648.1	73785.5	5631.9 ug/L	5631.9 ppb	03:46:18
3	Sc Radial	4706.0	4706.0	99.1 %		03:44:14
3	Y RADIAL	4997.0	4997.0	99.14 %		03:44:14
3	Al 396.153Radial†	5334.6	5464.6	4978.6 ug/L	4978.6 ppb	03:44:14
3	Ca 317.933Radial†	2835.0	2842.0	5085.8 ug/L	5085.8 ppb	03:44:34
3	Fe 238.204 Radial†	482.3	479.4	4990.9 ug/L	4990.9 ppb	03:44:34
3	K 766.490 Radial†	29262.6	27216.4	5133.3 ug/L	5133.3 ppb	03:44:14
3	Mg 279.077 IEC†	135.1	134.2	5289.9 ug/L	5289.9 ppb	03:44:34
3	Na 589.592 Radial†	28284.6	29273.5	8907.6 ug/L	8907.6 ppb	03:44:14
3	Sr 421.552†	67618.3	68201.4	485.95 ug/L	485.95 ppb	03:44:14
3	Sc 361.383	786084.8	786084.8	99.402 %		03:45:42
3	Y 371.029	695392.9	695392.9	98.360 %		03:45:42
3	Ag 328.068†	102170.6	102608.6	518.54 ug/L	518.54 ppb	03:45:48
3	As 188.979†	1156.7	1192.3	522.66 ug/L	522.66 ppb	03:46:08
3	B 249.677†	19977.3	20321.7	503.05 ug/L	503.05 ppb	03:45:48
3	Ba 233.527†	44321.5	44592.1	518.40 ug/L	518.40 ppb	03:45:48
3	Be 313.107†	1308473.0	1325674.2	519.82 ug/L	519.82 ppb	03:45:42
3	Cd 226.502†	37244.2	37650.8	517.50 ug/L	517.50 ppb	03:45:48
3	Co 228.616†	17579.3	17749.4	528.15 ug/L	528.15 ppb	03:45:48
3	Cr 267.716†	38759.8	38931.6	519.75 ug/L	519.75 ppb	03:45:48
3	Cu 324.752†	146462.0	139619.1	514.95 ug/L	514.95 ppb	03:45:48
3	Mn 257.610†	327885.8	329427.2	517.83 ug/L	517.83 ppb	03:45:48
3	Mo 202.031†	5697.2	5719.5	517.54 ug/L	517.54 ppb	03:46:08
3	Ni 231.604†	16803.2	16823.8	519.08 ug/L	519.08 ppb	03:45:48
3	P 214.914†	4903.4	4734.0	2467.8 ug/L	2467.8 ppb	03:46:08
3	Pb 220.353†	3173.0	3249.6	517.72 ug/L	517.72 ppb	03:46:08
3	S 181.975 Axial†	861.5	825.7	1024.7 ug/L	1024.7 ppb	03:46:08
3	Sb 206.836†	1317.5	1292.6	525.23 ug/L	525.23 ppb	03:46:08
3	Se 196.026†	853.5	877.6	534.22 ug/L	534.22 ppb	03:46:08
3	Si 251.611†	72186.9	72069.9	2563.9 ug/L	2563.9 ppb	03:45:48
3	Sn 189.927†	2227.4	2227.7	509.74 ug/L	509.74 ppb	03:46:08
3	Ti 334.940†	256529.1	259406.6	513.75 ug/L	513.75 ppb	03:45:48
3	Tl 190.801†	1093.8	1136.1	518.48 ug/L	518.48 ppb	03:46:08
3	U 409.014†	12922.4	15368.7	507.87 ug/L	507.87 ppb	03:45:48
3	V 292.402†	64500.0	66547.2	523.69 ug/L	523.69 ppb	03:45:48
3	Zn 213.857†	49068.0	48565.8	517.10 ug/L	517.10 ppb	03:45:48
3	SiO2†	72083.4	71956.5	5492.2 ug/L	5492.2 ppb	03:46:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	786327.2	99.433	%	1.7319				1.74%
Sc Radial	4645.2	97.8	%	1.50				1.53%
Y 371.029	695748.8	98.410	%	1.7476				1.78%
Y RADIAL	4906.1	97.34	%	1.794				1.84%
Ag 328.068†	102647.7	518.76	ug/L	14.342	518.76	ppb	14.342	2.76%
QC value within limits for Ag 328.068 Recovery = 103.75%								
Al 396.153Radial†	5590.1	5093.6	ug/L	101.86	5093.6	ppb	101.86	2.00%
QC value within limits for Al 396.153Radial Recovery = 101.87%								
As 188.979†	1195.5	524.08	ug/L	10.388	524.08	ppb	10.388	1.98%
QC value within limits for As 188.979 Recovery = 104.82%								
B 249.677†	20246.9	501.18	ug/L	15.708	501.18	ppb	15.708	3.13%
QC value within limits for B 249.677 Recovery = 100.24%								
Ba 233.527†	44613.2	518.65	ug/L	14.521	518.65	ppb	14.521	2.80%
QC value within limits for Ba 233.527 Recovery = 103.73%								
Be 313.107†	1341676.0	526.08	ug/L	15.613	526.08	ppb	15.613	2.97%
QC value within limits for Be 313.107 Recovery = 105.22%								
Ca 317.933Radial†	2868.3	5133.0	ug/L	41.91	5133.0	ppb	41.91	0.82%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.66%
Cd 226.502†            37713.3      518.35 ug/L        13.847      518.35 ppb         13.847   2.67%
   QC value within limits for Cd 226.502  Recovery = 103.67%
Co 228.616†            17744.0      527.99 ug/L        14.581      527.99 ppb         14.581   2.76%
   QC value within limits for Co 228.616  Recovery = 105.60%
Cr 267.716†            38968.3      520.24 ug/L        14.330      520.24 ppb         14.330   2.75%
   QC value within limits for Cr 267.716  Recovery = 104.05%
Cu 324.752†           139481.8      514.45 ug/L        15.765      514.45 ppb         15.765   3.06%
   QC value within limits for Cu 324.752  Recovery = 102.89%
Fe 238.204 Radial†       485.5      5054.8 ug/L         58.86      5054.8 ppb          58.86   1.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.10%
K 766.490 Radial†      27799.5      5243.3 ug/L         99.56      5243.3 ppb          99.56   1.90%
   QC value within limits for K 766.490 Radial  Recovery = 104.87%
Mg 279.077 IEC†          135.1      5324.3 ug/L         43.39      5324.3 ppb          43.39   0.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.49%
Mn 257.610†           329468.0      517.90 ug/L        14.582      517.90 ppb         14.582   2.82%
   QC value within limits for Mn 257.610  Recovery = 103.58%
Mo 202.031†             5704.5      516.19 ug/L        11.011      516.19 ppb         11.011   2.13%
   QC value within limits for Mo 202.031  Recovery = 103.24%
Na 589.592 Radial†     30094.7      9157.5 ug/L        216.50      9157.5 ppb         216.50   2.36%
   QC value within limits for Na 589.592 Radial  Recovery = 91.57%
Ni 231.604†            16869.8      520.50 ug/L        14.919      520.50 ppb         14.919   2.87%
   QC value within limits for Ni 231.604  Recovery = 104.10%
P 214.914†              4736.7      2469.4 ug/L         48.98      2469.4 ppb          48.98   1.98%
   QC value within limits for P 214.914  Recovery = 98.77%
Pb 220.353†             3249.2      517.68 ug/L        10.130      517.68 ppb         10.130   1.96%
   QC value within limits for Pb 220.353  Recovery = 103.54%
S 181.975 Axial†         825.4      1024.4 ug/L         25.26      1024.4 ppb          25.26   2.47%
   QC value within limits for S 181.975 Axial  Recovery = 102.44%
Sb 206.836†             1285.7      522.50 ug/L        14.509      522.50 ppb         14.509   2.78%
   QC value within limits for Sb 206.836  Recovery = 104.50%
Se 196.026†              873.2      531.77 ug/L        10.746      531.77 ppb         10.746   2.02%
   QC value within limits for Se 196.026  Recovery = 106.35%
Si 251.611†            72159.7      2567.1 ug/L         73.32      2567.1 ppb          73.32   2.86%
   QC value within limits for Si 251.611  Recovery = 102.68%
Sn 189.927†             2224.5      509.00 ug/L         9.959      509.00 ppb          9.959   1.96%
   QC value within limits for Sn 189.927  Recovery = 101.80%
Sr 421.552†            69909.1      498.12 ug/L        10.538      498.12 ppb         10.538   2.12%
   QC value within limits for Sr 421.552  Recovery = 99.62%
Ti 334.940†           259528.8      514.00 ug/L        14.479      514.00 ppb         14.479   2.82%
   QC value within limits for Ti 334.940  Recovery = 102.80%
Tl 190.801†             1136.8      518.80 ug/L         6.539      518.80 ppb          6.539   1.26%
   QC value within limits for Tl 190.801  Recovery = 103.76%
U 409.014†             15338.3      506.85 ug/L         8.742      506.85 ppb          8.742   1.72%
   QC value within limits for U 409.014  Recovery = 101.37%
V 292.402†             66609.7      524.15 ug/L        14.670      524.15 ppb         14.670   2.80%
   QC value within limits for V 292.402  Recovery = 104.83%
Zn 213.857†            48511.2      516.49 ug/L        14.447      516.49 ppb         14.447   2.80%
   QC value within limits for Zn 213.857  Recovery = 103.30%
SiO2†                  72355.4      5522.8 ug/L         97.53      5522.8 ppb          97.53   1.77%
   QC value within limits for SiO2  Recovery = 103.28%
All analyte(s) passed QC.
```

Sequence No.: 82
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/5/2010 03:48:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4773.1	4773.1	101	%			03:50:26
1	Y RADIAL	5065.1	5065.1	100.5	%			03:50:26
1	Al 396.153Radial†	-59.5	23.3	21.327	ug/L	21.327	ppb	03:50:46
1	Ca 317.933Radial†	21.6	3.3	5.8526	ug/L	5.8526	ppb	03:50:46
1	Fe 238.204 Radial†	6.1	-1.2	-12.590	ug/L	-12.590	ppb	03:50:46
1	K 766.490 Radial†	2487.7	167.8	31.709	ug/L	31.709	ppb	03:50:26
1	Mg 279.077 IEC†	2.4	0.3	11.764	ug/L	11.764	ppb	03:50:46
1	Na 589.592 Radial†	-879.6	-137.9	-41.951	ug/L	-41.951	ppb	03:50:26
1	Sr 421.552†	51.7	32.5	0.2317	ug/L	0.2317	ppb	03:50:26
1	Sc 361.383	800257.9	800257.9	101.19	%			03:51:43
1	Y 371.029	714681.1	714681.1	101.09	%			03:51:43
1	Ag 328.068†	274.2	94.5	0.4700	ug/L	0.4700	ppb	03:51:43
1	As 188.979†	-30.8	-1.8	-0.7986	ug/L	-0.7986	ppb	03:52:03
1	B 249.677†	-371.6	-143.0	-3.5557	ug/L	-3.5557	ppb	03:52:03
1	Ba 233.527†	4.3	8.3	0.0954	ug/L	0.0954	ppb	03:52:03
1	Be 313.107†	-9122.8	317.4	0.1245	ug/L	0.1245	ppb	03:51:43
1	Cd 226.502†	-197.0	-12.0	-0.1640	ug/L	-0.1640	ppb	03:52:03
1	Co 228.616†	-52.5	12.5	0.3717	ug/L	0.3717	ppb	03:52:03
1	Cr 267.716†	55.7	-6.2	-0.0827	ug/L	-0.0827	ppb	03:52:03
1	Cu 324.752†	7776.5	-39.0	-0.1449	ug/L	-0.1449	ppb	03:51:43
1	Mn 257.610†	501.1	64.7	0.0999	ug/L	0.0999	ppb	03:52:03
1	Mo 202.031†	14.1	2.0	0.1768	ug/L	0.1768	ppb	03:52:03
1	Ni 231.604†	89.2	7.7	0.2374	ug/L	0.2374	ppb	03:52:03
1	P 214.914†	196.7	-4.5	-2.4060	ug/L	-2.4060	ppb	03:52:03
1	Pb 220.353†	-56.7	1.5	0.2371	ug/L	0.2371	ppb	03:52:03
1	S 181.975 Axial†	42.1	0.6	0.6949	ug/L	0.6949	ppb	03:52:03
1	Sb 206.836†	36.8	3.5	1.3680	ug/L	1.3680	ppb	03:52:03
1	Se 196.026†	-19.6	-0.4	-0.2433	ug/L	-0.2433	ppb	03:52:03
1	Si 251.611†	657.4	98.5	3.5115	ug/L	3.5115	ppb	03:52:03
1	Sn 189.927†	9.2	-3.9	-0.8962	ug/L	-0.8962	ppb	03:52:03
1	Ti 334.940†	-1278.3	71.5	0.1413	ug/L	0.1413	ppb	03:51:43
1	Tl 190.801†	-31.0	5.1	2.3078	ug/L	2.3078	ppb	03:52:03
1	U 409.014†	-2380.2	16.5	0.5481	ug/L	0.5481	ppb	03:51:43
1	V 292.402†	-1695.8	-16.4	-0.1220	ug/L	-0.1220	ppb	03:51:43
1	Zn 213.857†	757.3	-49.0	-0.5254	ug/L	-0.5254	ppb	03:52:03
1	SiO2†	683.4	115.0	8.7928	ug/L	8.7928	ppb	03:52:59
2	Sc Radial	4758.4	4758.4	100	%			03:50:51
2	Y RADIAL	5076.3	5076.3	100.7	%			03:50:51
2	Al 396.153Radial†	-66.2	16.5	15.039	ug/L	15.039	ppb	03:51:11
2	Ca 317.933Radial†	17.2	-1.1	-2.0186	ug/L	-2.0186	ppb	03:51:11
2	Fe 238.204 Radial†	7.3	-0.0	-0.0065	ug/L	-0.0065	ppb	03:51:11
2	K 766.490 Radial†	2609.5	297.0	56.107	ug/L	56.107	ppb	03:50:51
2	Mg 279.077 IEC†	2.1	0.0	0.9339	ug/L	0.9339	ppb	03:51:11
2	Na 589.592 Radial†	-868.0	-129.0	-39.267	ug/L	-39.267	ppb	03:50:51
2	Sr 421.552†	18.4	-0.6	-0.0040	ug/L	-0.0040	ppb	03:50:51
2	Sc 361.383	720281.8	720281.8	91.081	%			03:52:08
2	Y 371.029	643597.2	643597.2	91.033	%			03:52:08
2	Ag 328.068†	235.7	82.3	0.4182	ug/L	0.4182	ppb	03:52:08
2	As 188.979†	-33.2	-7.9	-3.4174	ug/L	-3.4174	ppb	03:52:29
2	B 249.677†	-368.3	-180.2	-4.4808	ug/L	-4.4808	ppb	03:52:29
2	Ba 233.527†	10.0	15.0	0.1706	ug/L	0.1706	ppb	03:52:29
2	Be 313.107†	-9166.6	-731.7	-0.2861	ug/L	-0.2861	ppb	03:52:08
2	Cd 226.502†	-199.1	-36.0	-0.4965	ug/L	-0.4965	ppb	03:52:29
2	Co 228.616†	-53.2	6.0	0.1796	ug/L	0.1796	ppb	03:52:29
2	Cr 267.716†	69.9	15.5	0.2099	ug/L	0.2099	ppb	03:52:29
2	Cu 324.752†	7747.6	782.5	2.8931	ug/L	2.8931	ppb	03:52:08
2	Mn 257.610†	459.7	74.3	0.1166	ug/L	0.1166	ppb	03:52:29
2	Mo 202.031†	17.5	7.2	0.6505	ug/L	0.6505	ppb	03:52:29
2	Ni 231.604†	110.4	40.8	1.2583	ug/L	1.2583	ppb	03:52:29

2	P 214.914†	194.4	14.6	7.3595	ug/L	7.3595 ppb	03:52:29
2	Pb 220.353†	-82.4	-32.9	-5.2241	ug/L	-5.2241 ppb	03:52:29
2	S 181.975 Axial†	48.2	11.8	14.703	ug/L	14.703 ppb	03:52:29
2	Sb 206.836†	38.4	9.3	3.6626	ug/L	3.6626 ppb	03:52:29
2	Se 196.026†	-23.0	-6.3	-3.7224	ug/L	-3.7224 ppb	03:52:29
2	Si 251.611†	662.3	176.0	6.2689	ug/L	6.2689 ppb	03:52:29
2	Sn 189.927†	14.7	3.0	0.6945	ug/L	0.6945 ppb	03:52:29
2	Ti 334.940†	-1170.7	49.4	0.1031	ug/L	0.1031 ppb	03:52:08
2	Tl 190.801†	-36.2	-4.0	-1.8150	ug/L	-1.8150 ppb	03:52:29
2	U 409.014†	-2504.6	-381.3	-12.642	ug/L	-12.642 ppb	03:52:08
2	V 292.402†	-1668.5	-172.6	-1.3551	ug/L	-1.3551 ppb	03:52:08
2	Zn 213.857†	780.4	59.6	0.6283	ug/L	0.6283 ppb	03:52:29
2	SiO2†	677.8	183.9	14.052	ug/L	14.052 ppb	03:53:04
3	Sc Radial	4684.3	4684.3	98.7	%		03:51:16
3	Y RADIAL	4944.9	4944.9	98.11	%		03:51:16
3	Al 396.153Radial†	-53.3	28.5	26.045	ug/L	26.045 ppb	03:51:36
3	Ca 317.933Radial†	22.5	4.6	8.2266	ug/L	8.2266 ppb	03:51:36
3	Fe 238.204 Radial†	8.4	1.2	12.791	ug/L	12.791 ppb	03:51:36
3	K 766.490 Radial†	2507.7	235.0	44.397	ug/L	44.397 ppb	03:51:16
3	Mg 279.077 IEC†	3.8	1.7	68.935	ug/L	68.935 ppb	03:51:36
3	Na 589.592 Radial†	-864.4	-139.1	-42.326	ug/L	-42.326 ppb	03:51:16
3	Sr 421.552†	22.3	3.7	0.0260	ug/L	0.0260 ppb	03:51:16
3	Sc 361.383	793799.4	793799.4	100.38	%		03:52:34
3	Y 371.029	708830.0	708830.0	100.26	%		03:52:34
3	Ag 328.068†	283.8	106.3	0.5407	ug/L	0.5407 ppb	03:52:34
3	As 188.979†	-25.1	3.6	1.5838	ug/L	1.5838 ppb	03:52:54
3	B 249.677†	-370.2	-144.5	-3.5967	ug/L	-3.5967 ppb	03:52:54
3	Ba 233.527†	17.8	21.8	0.2535	ug/L	0.2535 ppb	03:52:54
3	Be 313.107†	-9149.1	217.9	0.0853	ug/L	0.0853 ppb	03:52:34
3	Cd 226.502†	-184.6	-1.3	-0.0187	ug/L	-0.0187 ppb	03:52:54
3	Co 228.616†	-57.6	7.0	0.2084	ug/L	0.2084 ppb	03:52:54
3	Cr 267.716†	79.1	17.6	0.2365	ug/L	0.2365 ppb	03:52:54
3	Cu 324.752†	7765.7	12.7	0.0490	ug/L	0.0490 ppb	03:52:34
3	Mn 257.610†	492.0	59.7	0.0922	ug/L	0.0922 ppb	03:52:54
3	Mo 202.031†	16.4	4.4	0.3958	ug/L	0.3958 ppb	03:52:54
3	Ni 231.604†	101.7	20.8	0.6423	ug/L	0.6423 ppb	03:52:54
3	P 214.914†	192.7	-6.9	-3.7470	ug/L	-3.7470 ppb	03:52:54
3	Pb 220.353†	-59.4	-1.6	-0.2549	ug/L	-0.2549 ppb	03:52:54
3	S 181.975 Axial†	50.4	9.2	11.376	ug/L	11.376 ppb	03:52:54
3	Sb 206.836†	29.4	-3.6	-1.4004	ug/L	-1.4004 ppb	03:52:54
3	Se 196.026†	-20.2	-1.2	-0.6636	ug/L	-0.6636 ppb	03:52:54
3	Si 251.611†	648.4	94.8	3.3767	ug/L	3.3767 ppb	03:52:54
3	Sn 189.927†	10.4	-2.7	-0.6152	ug/L	-0.6152 ppb	03:52:54
3	Ti 334.940†	-1332.5	7.2	0.0108	ug/L	0.0108 ppb	03:52:34
3	Tl 190.801†	-24.0	11.7	5.3248	ug/L	5.3248 ppb	03:52:54
3	U 409.014†	-2455.8	-78.0	-2.5873	ug/L	-2.5873 ppb	03:52:34
3	V 292.402†	-1638.0	27.5	0.2132	ug/L	0.2132 ppb	03:52:34
3	Zn 213.857†	764.3	-35.8	-0.3912	ug/L	-0.3912 ppb	03:52:54
3	SiO2†	655.1	92.3	7.0501	ug/L	7.0501 ppb	03:53:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	771446.4	97.551	%	5.6179				5.76%
Sc Radial	4738.6	99.8	%	1.00				1.00%
Y 371.029	689036.1	97.460	%	5.5814				5.73%
Y RADIAL	5028.8	99.77	%	1.445				1.45%
Ag 328.068†	94.4	0.4763	ug/L	0.06150	0.4763	ppb	0.06150	12.91%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.7	20.804	ug/L	5.5219	20.804	ppb	5.5219	26.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.0	-0.8774	ug/L	2.50153	-0.8774	ppb	2.50153	285.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-155.9	-3.8777	ug/L	0.52267	-3.8777	ppb	0.52267	13.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.0	0.1732	ug/L	0.07904	0.1732	ppb	0.07904	45.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-65.5	-0.0254	ug/L	0.22656	-0.0254	ppb	0.22656	890.65%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.2	4.0202	ug/L	5.36273	4.0202	ppb	5.36273	133.39%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -16.4     -0.2264 ug/L       0.24492     -0.2264 ppb        0.24492 108.19%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                8.5      0.2532 ug/L       0.10357      0.2532 ppb        0.10357  40.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                9.0      0.1212 ug/L       0.17711      0.1212 ppb        0.17711 146.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              252.1      0.9324 ug/L       1.70076      0.9324 ppb        1.70076 182.41%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.0      0.0649 ug/L      12.69048      0.0649 ppb       12.69048 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        233.3      44.071 ug/L       12.2024      44.071 ppb        12.2024  27.69%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.7      27.211 ug/L       36.5378      27.211 ppb        36.5378 134.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               66.2      0.1029 ug/L       0.01248      0.1029 ppb        0.01248  12.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.5      0.4077 ug/L       0.23706      0.4077 ppb        0.23706  58.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -135.3     -41.181 ug/L        1.6684     -41.181 ppb         1.6684   4.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               23.1      0.7127 ug/L       0.51409      0.7127 ppb        0.51409  72.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 1.1      0.4022 ug/L       6.06242      0.4022 ppb        6.06242 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -11.0     -1.7473 ug/L       3.02104     -1.7473 ppb        3.02104 172.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           7.2      8.9246 ug/L       7.31884      8.9246 ppb        7.31884  82.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.1      1.2101 ug/L       2.53516      1.2101 ppb        2.53516 209.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.6     -1.5431 ug/L       1.89900     -1.5431 ppb        1.89900 123.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              123.1      4.3857 ug/L       1.63227      4.3857 ppb        1.63227  37.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.2     -0.2723 ug/L       0.84894     -0.2723 ppb        0.84894 311.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               11.9      0.0846 ug/L       0.12828      0.0846 ppb        0.12828 151.71%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               42.7      0.0851 ug/L       0.06707      0.0851 ppb        0.06707  78.83%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.3      1.9392 ug/L       3.58414      1.9392 ppb        3.58414 184.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -147.6     -4.8937 ug/L       6.89093     -4.8937 ppb        6.89093 140.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -53.8     -0.4213 ug/L       0.82593     -0.4213 ppb        0.82593 196.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -8.4     -0.0961 ug/L       0.63092     -0.0961 ppb        0.63092 656.33%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    130.4      9.9649 ug/L       3.64520      9.9649 ppb        3.64520  36.58%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 83
Sample ID: 1202042566|952949|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 100
Date Collected: 3/5/2010 03:55:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042566|952949|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4758.2	4758.2	100	%			03:57:14
1	Y RADIAL	5037.0	5037.0	99.94	%			03:57:14
1	Al 396.153Radial†	-67.9	14.7	13.467	ug/L	13.467	ppb	03:57:34
1	Ca 317.933Radial†	21.4	3.1	5.4815	ug/L	5.4815	ppb	03:57:34
1	Fe 238.204 Radial†	7.6	0.3	3.3500	ug/L	3.3500	ppb	03:57:34
1	K 766.490 Radial†	2592.6	280.3	52.901	ug/L	52.901	ppb	03:57:14
1	Mg 279.077 IEC†	1.7	-0.4	-17.347	ug/L	-17.347	ppb	03:57:34
1	Na 589.592 Radial†	-535.4	202.9	61.727	ug/L	61.727	ppb	03:57:14
1	Sr 421.552†	83.7	64.5	0.4598	ug/L	0.4598	ppb	03:57:14
1	Sc 361.383	800568.5	800568.5	101.23	%			03:58:31
1	Y 371.029	721309.2	721309.2	102.03	%			03:58:31
1	Ag 328.068†	138.4	-39.7	-0.1950	ug/L	-0.1950	ppb	03:58:31
1	As 188.979†	-30.3	-1.3	-0.5598	ug/L	-0.5598	ppb	03:58:51
1	B 249.677†	-438.6	-209.0	-5.1982	ug/L	-5.1982	ppb	03:58:51
1	Ba 233.527†	9.4	13.3	0.1542	ug/L	0.1542	ppb	03:58:51
1	Be 313.107†	-9117.8	325.9	0.1282	ug/L	0.1282	ppb	03:58:31
1	Cd 226.502†	-186.9	-2.0	-0.0285	ug/L	-0.0285	ppb	03:58:51
1	Co 228.616†	-66.0	-0.8	-0.0257	ug/L	-0.0257	ppb	03:58:51
1	Cr 267.716†	66.8	4.8	0.0658	ug/L	0.0658	ppb	03:58:51
1	Cu 324.752†	7800.3	-18.5	-0.0657	ug/L	-0.0657	ppb	03:58:31
1	Mn 257.610†	567.0	129.6	0.2047	ug/L	0.2047	ppb	03:58:51
1	Mo 202.031†	8.7	-3.4	-0.3101	ug/L	-0.3101	ppb	03:58:51
1	Ni 231.604†	75.6	-5.8	-0.1800	ug/L	-0.1800	ppb	03:58:51
1	P 214.914†	209.2	7.8	4.3362	ug/L	4.3362	ppb	03:58:51
1	Pb 220.353†	-69.4	-11.0	-1.7467	ug/L	-1.7467	ppb	03:58:51
1	S 181.975 Axial†	46.7	5.1	6.3638	ug/L	6.3638	ppb	03:58:51
1	Sb 206.836†	30.2	-3.1	-1.0436	ug/L	-1.0436	ppb	03:58:51
1	Se 196.026†	-21.1	-1.8	-1.0860	ug/L	-1.0860	ppb	03:58:51
1	Si 251.611†	861.1	299.5	10.684	ug/L	10.684	ppb	03:58:51
1	Sn 189.927†	59.5	45.7	10.449	ug/L	10.449	ppb	03:58:51
1	Ti 334.940†	-1185.2	164.0	0.3290	ug/L	0.3290	ppb	03:58:31
1	Tl 190.801†	-29.9	6.2	2.8107	ug/L	2.8107	ppb	03:58:51
1	U 409.014†	-2527.8	-128.4	-4.2569	ug/L	-4.2569	ppb	03:58:31
1	V 292.402†	-1672.9	6.8	0.0393	ug/L	0.0393	ppb	03:58:31
1	Zn 213.857†	752.5	-54.0	-0.5794	ug/L	-0.5794	ppb	03:58:51
1	SiO2†	885.2	314.0	24.039	ug/L	24.039	ppb	03:59:47
2	Sc Radial	4761.8	4761.8	100	%			03:57:39
2	Y RADIAL	5022.0	5022.0	99.64	%			03:57:39
2	Al 396.153Radial†	-79.1	3.6	3.3359	ug/L	3.3359	ppb	03:57:59
2	Ca 317.933Radial†	21.0	2.7	4.8261	ug/L	4.8261	ppb	03:57:59
2	Fe 238.204 Radial†	9.6	2.3	24.356	ug/L	24.356	ppb	03:57:59
2	K 766.490 Radial†	2537.4	223.3	42.124	ug/L	42.124	ppb	03:57:39
2	Mg 279.077 IEC†	2.2	0.1	3.3013	ug/L	3.3013	ppb	03:57:59
2	Na 589.592 Radial†	-463.8	274.6	83.563	ug/L	83.563	ppb	03:57:39
2	Sr 421.552†	-7.3	-26.2	-0.1870	ug/L	-0.1870	ppb	03:57:39
2	Sc 361.383	795497.3	795497.3	100.59	%			03:58:56
2	Y 371.029	713506.1	713506.1	100.92	%			03:58:56
2	Ag 328.068†	158.2	-19.2	-0.0914	ug/L	-0.0914	ppb	03:58:56
2	As 188.979†	-29.5	-0.7	-0.2948	ug/L	-0.2948	ppb	03:59:16
2	B 249.677†	-426.9	-200.2	-4.9825	ug/L	-4.9825	ppb	03:59:16
2	Ba 233.527†	7.2	11.1	0.1286	ug/L	0.1286	ppb	03:59:16
2	Be 313.107†	-9141.2	245.1	0.0968	ug/L	0.0968	ppb	03:58:56
2	Cd 226.502†	-189.7	-6.0	-0.0840	ug/L	-0.0840	ppb	03:59:16
2	Co 228.616†	-55.6	9.0	0.2666	ug/L	0.2666	ppb	03:59:16
2	Cr 267.716†	51.8	-9.7	-0.1296	ug/L	-0.1296	ppb	03:59:16
2	Cu 324.752†	7678.4	-90.6	-0.3328	ug/L	-0.3328	ppb	03:58:56
2	Mn 257.610†	593.4	159.5	0.2528	ug/L	0.2528	ppb	03:59:16
2	Mo 202.031†	4.4	-7.6	-0.6856	ug/L	-0.6856	ppb	03:59:16
2	Ni 231.604†	104.8	23.7	0.7315	ug/L	0.7315	ppb	03:59:16

2	P 214.914†	210.4	10.3	5.7754	ug/L	5.7754 ppb	03:59:16
2	Pb 220.353†	-58.0	-0.2	-0.0309	ug/L	-0.0309 ppb	03:59:16
2	S 181.975 Axial†	43.4	2.1	2.5781	ug/L	2.5781 ppb	03:59:16
2	Sb 206.836†	38.9	5.8	2.4682	ug/L	2.4682 ppb	03:59:16
2	Se 196.026†	-11.8	7.3	4.3707	ug/L	4.3707 ppb	03:59:16
2	Si 251.611†	858.0	301.8	10.771	ug/L	10.771 ppb	03:59:16
2	Sn 189.927†	69.0	55.5	12.693	ug/L	12.693 ppb	03:59:16
2	Ti 334.940†	-1141.2	200.2	0.3972	ug/L	0.3972 ppb	03:58:56
2	Tl 190.801†	-32.5	3.4	1.5558	ug/L	1.5558 ppb	03:59:16
2	U 409.014†	-2387.2	-4.5	-0.1533	ug/L	-0.1533 ppb	03:58:56
2	V 292.402†	-1752.9	-83.2	-0.6602	ug/L	-0.6602 ppb	03:58:56
2	Zn 213.857†	740.3	-61.3	-0.6666	ug/L	-0.6666 ppb	03:59:16
2	SiO2†	875.7	310.2	23.757	ug/L	23.757 ppb	03:59:52
3	Sc Radial	4819.0	4819.0	101	%		03:58:04
3	Y RADIAL	5096.0	5096.0	101.1	%		03:58:04
3	Al 396.153Radial†	-63.3	20.1	18.446	ug/L	18.446 ppb	03:58:24
3	Ca 317.933Radial†	24.8	6.2	11.066	ug/L	11.066 ppb	03:58:24
3	Fe 238.204 Radial†	9.8	2.4	24.440	ug/L	24.440 ppb	03:58:24
3	K 766.490 Radial†	2660.4	314.4	59.334	ug/L	59.334 ppb	03:58:04
3	Mg 279.077 IEC†	0.8	-1.3	-52.020	ug/L	-52.020 ppb	03:58:24
3	Na 589.592 Radial†	-533.9	211.0	64.217	ug/L	64.217 ppb	03:58:04
3	Sr 421.552†	52.5	32.8	0.2337	ug/L	0.2337 ppb	03:58:04
3	Sc 361.383	794230.1	794230.1	100.43	%		03:59:21
3	Y 371.029	712613.4	712613.4	100.80	%		03:59:21
3	Ag 328.068†	236.7	59.2	0.3036	ug/L	0.3036 ppb	03:59:21
3	As 188.979†	-24.8	3.9	1.7031	ug/L	1.7031 ppb	03:59:41
3	B 249.677†	-428.0	-201.9	-5.0261	ug/L	-5.0261 ppb	03:59:41
3	Ba 233.527†	22.7	26.7	0.3096	ug/L	0.3096 ppb	03:59:41
3	Be 313.107†	-9102.4	269.3	0.1064	ug/L	0.1064 ppb	03:59:21
3	Cd 226.502†	-196.9	-13.4	-0.1862	ug/L	-0.1862 ppb	03:59:41
3	Co 228.616†	-52.6	11.9	0.3538	ug/L	0.3538 ppb	03:59:41
3	Cr 267.716†	71.3	9.8	0.1306	ug/L	0.1306 ppb	03:59:41
3	Cu 324.752†	7697.0	-59.8	-0.2198	ug/L	-0.2198 ppb	03:59:21
3	Mn 257.610†	573.9	141.0	0.2260	ug/L	0.2260 ppb	03:59:41
3	Mo 202.031†	11.0	-1.0	-0.0902	ug/L	-0.0902 ppb	03:59:41
3	Ni 231.604†	104.2	23.3	0.7179	ug/L	0.7179 ppb	03:59:41
3	P 214.914†	207.1	7.4	4.1300	ug/L	4.1300 ppb	03:59:41
3	Pb 220.353†	-72.6	-14.8	-2.3471	ug/L	-2.3471 ppb	03:59:41
3	S 181.975 Axial†	45.1	3.8	4.7678	ug/L	4.7678 ppb	03:59:41
3	Sb 206.836†	36.7	3.6	1.5910	ug/L	1.5910 ppb	03:59:41
3	Se 196.026†	-13.2	5.9	3.5367	ug/L	3.5367 ppb	03:59:41
3	Si 251.611†	852.4	297.6	10.615	ug/L	10.615 ppb	03:59:41
3	Sn 189.927†	62.2	48.9	11.166	ug/L	11.166 ppb	03:59:41
3	Ti 334.940†	-1114.2	225.3	0.4518	ug/L	0.4518 ppb	03:59:21
3	Tl 190.801†	-24.7	11.1	5.0345	ug/L	5.0345 ppb	03:59:41
3	U 409.014†	-2354.7	24.0	0.7933	ug/L	0.7933 ppb	03:59:21
3	V 292.402†	-1679.0	-12.4	-0.1014	ug/L	-0.1014 ppb	03:59:21
3	Zn 213.857†	742.8	-57.7	-0.6276	ug/L	-0.6276 ppb	03:59:41
3	SiO2†	882.6	318.4	24.371	ug/L	24.371 ppb	03:59:57

Mean Data: 1202042566|952949|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	796765.3	100.75	%	0.424				0.42%
Sc Radial	4779.7	101	%	0.7				0.71%
Y 371.029	715809.6	101.25	%	0.677				0.67%
Y RADIAL	5051.6	100.2	%	0.78				0.77%
Ag 328.068†	0.1	0.0057	ug/L	0.26313	0.0057	ppb	0.26313	>999.9%
Al 396.153Radial†	12.8	11.750	ug/L	7.7001	11.750	ppb	7.7001	65.53%
As 188.979†	0.6	0.2828	ug/L	1.23711	0.2828	ppb	1.23711	437.39%
B 249.677†	-203.7	-5.0689	ug/L	0.11406	-5.0689	ppb	0.11406	2.25%
Ba 233.527†	17.0	0.1975	ug/L	0.09797	0.1975	ppb	0.09797	49.62%
Be 313.107†	280.1	0.1105	ug/L	0.01611	0.1105	ppb	0.01611	14.58%
Ca 317.933Radial†	4.0	7.1247	ug/L	3.42936	7.1247	ppb	3.42936	48.13%
Cd 226.502†	-7.1	-0.0996	ug/L	0.08001	-0.0996	ppb	0.08001	80.37%
Co 228.616†	6.7	0.1982	ug/L	0.19876	0.1982	ppb	0.19876	100.27%
Cr 267.716†	1.6	0.0223	ug/L	0.13548	0.0223	ppb	0.13548	608.31%
Cu 324.752†	-56.3	-0.2061	ug/L	0.13410	-0.2061	ppb	0.13410	65.07%
Fe 238.204 Radial†	1.7	17.382	ug/L	12.1520	17.382	ppb	12.1520	69.91%
K 766.490 Radial†	272.6	51.453	ug/L	8.6958	51.453	ppb	8.6958	16.90%

Mg 279.077 IEC†	-0.6	-22.022	ug/L	27.9551	-22.022	ppb	27.9551	126.94%
Mn 257.610†	143.4	0.2279	ug/L	0.02412	0.2279	ppb	0.02412	10.59%
Mo 202.031†	-4.0	-0.3620	ug/L	0.30104	-0.3620	ppb	0.30104	83.17%
Na 589.592 Radial†	229.5	69.836	ug/L	11.9531	69.836	ppb	11.9531	17.12%
Ni 231.604†	13.7	0.4231	ug/L	0.52237	0.4231	ppb	0.52237	123.47%
P 214.914†	8.5	4.7472	ug/L	0.89640	4.7472	ppb	0.89640	18.88%
Pb 220.353†	-8.7	-1.3749	ug/L	1.20203	-1.3749	ppb	1.20203	87.43%
S 181.975 Axial†	3.7	4.5699	ug/L	1.90061	4.5699	ppb	1.90061	41.59%
Sb 206.836†	2.1	1.0052	ug/L	1.82768	1.0052	ppb	1.82768	181.82%
Se 196.026†	3.8	2.2738	ug/L	2.93942	2.2738	ppb	2.93942	129.27%
Si 251.611†	299.6	10.690	ug/L	0.0781	10.690	ppb	0.0781	0.73%
Sn 189.927†	50.0	11.436	ug/L	1.1463	11.436	ppb	1.1463	10.02%
Sr 421.552†	23.7	0.1689	ug/L	0.32825	0.1689	ppb	0.32825	194.38%
Ti 334.940†	196.5	0.3926	ug/L	0.06152	0.3926	ppb	0.06152	15.67%
Tl 190.801†	6.9	3.1337	ug/L	1.76172	3.1337	ppb	1.76172	56.22%
U 409.014†	-36.3	-1.2056	ug/L	2.68451	-1.2056	ppb	2.68451	222.67%
V 292.402†	-29.6	-0.2408	ug/L	0.36996	-0.2408	ppb	0.36996	153.66%
Zn 213.857†	-57.7	-0.6245	ug/L	0.04364	-0.6245	ppb	0.04364	6.99%
SiO2†	314.2	24.056	ug/L	0.3069	24.056	ppb	0.3069	1.28%

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Sequence No.: 84
Sample ID: 1202042567|952949|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/5/2010 04:02:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042567|952949|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4741.3	4741.3	99.9	%			04:04:02
1	Y RADIAL	4984.0	4984.0	98.89	%			04:04:02
1	Al 396.153Radial†	5387.2	5477.2	4991.4	ug/L	4991.4	ppb	04:04:02
1	Ca 317.933Radial†	2812.2	2797.9	5006.9	ug/L	5006.9	ppb	04:04:22
1	Fe 238.204 Radial†	483.0	476.4	4958.8	ug/L	4958.8	ppb	04:04:22
1	K 766.490 Radial†	29395.1	27129.1	5118.6	ug/L	5118.6	ppb	04:04:02
1	Mg 279.077 IEC†	132.3	130.4	5138.9	ug/L	5138.9	ppb	04:04:22
1	Na 589.592 Radial†	14499.2	15256.4	4642.3	ug/L	4642.3	ppb	04:04:02
1	Sr 421.552†	69159.6	69236.5	493.33	ug/L	493.33	ppb	04:04:02
1	Sc 361.383	817324.9	817324.9	103.35	%			04:05:21
1	Y 371.029	724118.2	724118.2	102.42	%			04:05:21
1	Ag 328.068†	97842.3	94492.0	477.72	ug/L	477.72	ppb	04:05:21
1	As 188.979†	1132.1	1124.0	492.92	ug/L	492.92	ppb	04:05:41
1	B 249.677†	19744.3	19328.1	478.46	ug/L	478.46	ppb	04:05:21
1	Ba 233.527†	44585.8	43143.5	501.57	ug/L	501.57	ppb	04:05:21
1	Be 313.107†	1296985.2	1264245.5	495.77	ug/L	495.77	ppb	04:05:21
1	Cd 226.502†	35838.8	34858.9	479.11	ug/L	479.11	ppb	04:05:41
1	Co 228.616†	16886.8	16403.3	488.07	ug/L	488.07	ppb	04:05:41
1	Cr 267.716†	38837.4	37516.3	500.87	ug/L	500.87	ppb	04:05:21
1	Cu 324.752†	149177.2	136614.4	503.88	ug/L	503.88	ppb	04:05:21
1	Mn 257.610†	334080.4	322812.9	507.44	ug/L	507.44	ppb	04:05:21
1	Mo 202.031†	5634.5	5439.8	492.25	ug/L	492.25	ppb	04:05:41
1	Ni 231.604†	16841.6	16214.8	500.30	ug/L	500.30	ppb	04:05:41
1	P 214.914†	1215.5	977.2	431.99	ug/L	431.99	ppb	04:05:41
1	Pb 220.353†	3131.3	3087.2	491.89	ug/L	491.89	ppb	04:05:41
1	S 181.975 Axial†	4165.9	3989.7	4955.1	ug/L	4955.1	ppb	04:05:41
1	Sb 206.836†	1401.1	1322.7	536.35	ug/L	536.35	ppb	04:05:41
1	Se 196.026†	824.8	817.0	498.10	ug/L	498.10	ppb	04:05:41
1	Si 251.611†	142714.3	137533.7	4898.9	ug/L	4898.9	ppb	04:05:21
1	Sn 189.927†	2268.7	2182.1	499.29	ug/L	499.29	ppb	04:05:41
1	Ti 334.940†	262388.3	255211.6	505.46	ug/L	505.46	ppb	04:05:21
1	Tl 190.801†	1095.8	1096.0	500.39	ug/L	500.39	ppb	04:05:41
1	U 409.014†	12971.7	14919.5	493.02	ug/L	493.02	ppb	04:05:21
1	V 292.402†	65256.6	64799.1	509.75	ug/L	509.75	ppb	04:05:21
1	Zn 213.857†	48729.5	46351.5	493.44	ug/L	493.44	ppb	04:05:21
1	SiO2†	142910.9	137714.8	10525	ug/L	10525	ppb	04:06:41
2	Sc Radial	4712.2	4712.2	99.2	%			04:04:27
2	Y RADIAL	4965.1	4965.1	98.51	%			04:04:27
2	Al 396.153Radial†	5355.9	5478.9	4992.8	ug/L	4992.8	ppb	04:04:27
2	Ca 317.933Radial†	2803.5	2806.4	5022.2	ug/L	5022.2	ppb	04:04:47
2	Fe 238.204 Radial†	486.0	482.5	5021.9	ug/L	5021.9	ppb	04:04:47
2	K 766.490 Radial†	29367.7	27283.1	5147.7	ug/L	5147.7	ppb	04:04:27
2	Mg 279.077 IEC†	134.6	133.5	5261.1	ug/L	5261.1	ppb	04:04:47
2	Na 589.592 Radial†	14391.9	15237.9	4636.7	ug/L	4636.7	ppb	04:04:27
2	Sr 421.552†	68866.0	69368.1	494.27	ug/L	494.27	ppb	04:04:27
2	Sc 361.383	814454.6	814454.6	102.99	%			04:05:48
2	Y 371.029	720177.0	720177.0	101.87	%			04:05:48
2	Ag 328.068†	97541.0	94533.0	477.95	ug/L	477.95	ppb	04:05:48
2	As 188.979†	1143.5	1138.9	499.45	ug/L	499.45	ppb	04:06:09
2	B 249.677†	19744.1	19395.2	480.11	ug/L	480.11	ppb	04:05:48
2	Ba 233.527†	44374.8	43090.7	500.96	ug/L	500.96	ppb	04:05:48
2	Be 313.107†	1292298.0	1264116.8	495.72	ug/L	495.72	ppb	04:05:48
2	Cd 226.502†	35880.5	35021.6	481.34	ug/L	481.34	ppb	04:06:09
2	Co 228.616†	16929.0	16502.0	491.00	ug/L	491.00	ppb	04:06:09
2	Cr 267.716†	38687.8	37503.5	500.70	ug/L	500.70	ppb	04:05:48
2	Cu 324.752†	148604.3	136566.8	503.71	ug/L	503.71	ppb	04:05:48
2	Mn 257.610†	333605.9	323491.4	508.51	ug/L	508.51	ppb	04:05:48
2	Mo 202.031†	5647.9	5472.0	495.17	ug/L	495.17	ppb	04:06:09
2	Ni 231.604†	16926.9	16355.0	504.63	ug/L	504.63	ppb	04:06:09

2	P 214.914†	1216.7	982.6	434.91 ug/L	434.91 ppb	04:06:09
2	Pb 220.353†	3160.9	3126.7	498.15 ug/L	498.15 ppb	04:06:09
2	S 181.975 Axial†	4160.3	3998.5	4966.1 ug/L	4966.1 ppb	04:06:09
2	Sb 206.836†	1404.8	1331.2	539.78 ug/L	539.78 ppb	04:06:09
2	Se 196.026†	841.4	836.0	509.53 ug/L	509.53 ppb	04:06:09
2	Si 251.611†	142701.2	138007.6	4915.7 ug/L	4915.7 ppb	04:05:48
2	Sn 189.927†	2277.7	2198.5	503.05 ug/L	503.05 ppb	04:06:09
2	Ti 334.940†	262076.2	255803.2	506.62 ug/L	506.62 ppb	04:05:48
2	Tl 190.801†	1101.8	1105.5	504.73 ug/L	504.73 ppb	04:06:09
2	U 409.014†	12813.2	14809.9	489.38 ug/L	489.38 ppb	04:05:48
2	V 292.402†	65060.5	64831.3	510.03 ug/L	510.03 ppb	04:05:48
2	Zn 213.857†	48591.8	46383.9	493.75 ug/L	493.75 ppb	04:05:48
2	SiO2†	141278.8	136617.3	10441 ug/L	10441 ppb	04:06:46
3	Sc Radial	4859.3	4859.3	102 %		04:04:52
3	Y RADIAL	5108.4	5108.4	101.4 %		04:04:52
3	Al 396.153Radial†	5473.5	5430.5	4948.3 ug/L	4948.3 ppb	04:04:52
3	Ca 317.933Radial†	2827.4	2744.3	4911.1 ug/L	4911.1 ppb	04:05:12
3	Fe 238.204 Radial†	487.5	469.1	4883.0 ug/L	4883.0 ppb	04:05:12
3	K 766.490 Radial†	29692.1	26704.6	5038.4 ug/L	5038.4 ppb	04:04:52
3	Mg 279.077 IEC†	134.7	129.5	5103.4 ug/L	5103.4 ppb	04:05:12
3	Na 589.592 Radial†	14705.1	15105.0	4596.3 ug/L	4596.3 ppb	04:04:52
3	Sr 421.552†	70579.5	68942.2	491.23 ug/L	491.23 ppb	04:04:52
3	Sc 361.383	806951.1	806951.1	102.04 %		04:06:16
3	Y 371.029	713609.5	713609.5	100.94 %		04:06:16
3	Ag 328.068†	96521.0	94414.2	477.30 ug/L	477.30 ppb	04:06:16
3	As 188.979†	1141.5	1147.3	503.03 ug/L	503.03 ppb	04:06:36
3	B 249.677†	19494.2	19328.6	478.46 ug/L	478.46 ppb	04:06:16
3	Ba 233.527†	44000.4	43124.5	501.35 ug/L	501.35 ppb	04:06:16
3	Be 313.107†	1277732.8	1261510.6	494.70 ug/L	494.70 ppb	04:06:16
3	Cd 226.502†	35721.5	35189.7	483.67 ug/L	483.67 ppb	04:06:36
3	Co 228.616†	16907.5	16633.7	494.94 ug/L	494.94 ppb	04:06:36
3	Cr 267.716†	38376.6	37547.8	501.28 ug/L	501.28 ppb	04:06:16
3	Cu 324.752†	146787.5	136128.0	502.08 ug/L	502.08 ppb	04:06:16
3	Mn 257.610†	330284.3	323248.2	508.12 ug/L	508.12 ppb	04:06:16
3	Mo 202.031†	5642.1	5517.3	499.25 ug/L	499.25 ppb	04:06:36
3	Ni 231.604†	16847.2	16429.8	506.94 ug/L	506.94 ppb	04:06:36
3	P 214.914†	1228.0	1004.6	447.31 ug/L	447.31 ppb	04:06:36
3	Pb 220.353†	3121.3	3116.4	496.53 ug/L	496.53 ppb	04:06:36
3	S 181.975 Axial†	4148.2	4024.2	4997.9 ug/L	4997.9 ppb	04:06:36
3	Sb 206.836†	1396.9	1336.1	541.79 ug/L	541.79 ppb	04:06:36
3	Se 196.026†	826.4	828.9	505.01 ug/L	505.01 ppb	04:06:36
3	Si 251.611†	141283.9	137907.1	4912.1 ug/L	4912.1 ppb	04:06:16
3	Sn 189.927†	2260.3	2202.1	503.85 ug/L	503.85 ppb	04:06:36
3	Ti 334.940†	259232.1	255382.2	505.78 ug/L	505.78 ppb	04:06:16
3	Tl 190.801†	1104.6	1118.2	510.44 ug/L	510.44 ppb	04:06:36
3	U 409.014†	12778.9	14892.0	492.11 ug/L	492.11 ppb	04:06:16
3	V 292.402†	64376.9	64748.7	509.46 ug/L	509.46 ppb	04:06:16
3	Zn 213.857†	48147.2	46387.0	493.79 ug/L	493.79 ppb	04:06:16
3	SiO2†	141037.4	137656.3	10520 ug/L	10520 ppb	04:06:52

Mean Data: 1202042567|952949|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	812910.2	102.79	%	0.677				0.66%
Sc Radial	4771.0	100	%	1.6				1.63%
Y 371.029	719301.6	101.74	%	0.751				0.74%
Y RADIAL	5019.2	99.58	%	1.544				1.55%
Ag 328.068†	94479.7	477.66	ug/L	0.326	477.66	ppb	0.326	0.07%
Al 396.153Radial†	5462.2	4977.5	ug/L	25.30	4977.5	ppb	25.30	0.51%
As 188.979†	1136.7	498.47	ug/L	5.122	498.47	ppb	5.122	1.03%
B 249.677†	19350.6	479.01	ug/L	0.952	479.01	ppb	0.952	0.20%
Ba 233.527†	43119.5	501.30	ug/L	0.309	501.30	ppb	0.309	0.06%
Be 313.107†	1263291.0	495.39	ug/L	0.604	495.39	ppb	0.604	0.12%
Ca 317.933Radial†	2782.9	4980.0	ug/L	60.21	4980.0	ppb	60.21	1.21%
Cd 226.502†	35023.4	481.37	ug/L	2.280	481.37	ppb	2.280	0.47%
Co 228.616†	16513.0	491.33	ug/L	3.447	491.33	ppb	3.447	0.70%
Cr 267.716†	37522.6	500.95	ug/L	0.302	500.95	ppb	0.302	0.06%
Cu 324.752†	136436.4	503.22	ug/L	0.992	503.22	ppb	0.992	0.20%
Fe 238.204 Radial†	476.0	4954.6	ug/L	69.55	4954.6	ppb	69.55	1.40%
K 766.490 Radial†	27038.9	5101.6	ug/L	56.56	5101.6	ppb	56.56	1.11%

Mg 279.077 IEC†	131.1	5167.8	ug/L	82.73	5167.8	ppb	82.73	1.60%
Mn 257.610†	323184.2	508.02	ug/L	0.540	508.02	ppb	0.540	0.11%
Mo 202.031†	5476.4	495.56	ug/L	3.516	495.56	ppb	3.516	0.71%
Na 589.592 Radial†	15199.8	4625.1	ug/L	25.12	4625.1	ppb	25.12	0.54%
Ni 231.604†	16333.2	503.96	ug/L	3.368	503.96	ppb	3.368	0.67%
P 214.914†	988.2	438.07	ug/L	8.134	438.07	ppb	8.134	1.86%
Pb 220.353†	3110.1	495.53	ug/L	3.251	495.53	ppb	3.251	0.66%
S 181.975 Axial†	4004.2	4973.0	ug/L	22.23	4973.0	ppb	22.23	0.45%
Sb 206.836†	1330.0	539.31	ug/L	2.750	539.31	ppb	2.750	0.51%
Se 196.026†	827.3	504.21	ug/L	5.754	504.21	ppb	5.754	1.14%
Si 251.611†	137816.1	4908.9	ug/L	8.88	4908.9	ppb	8.88	0.18%
Sn 189.927†	2194.2	502.06	ug/L	2.436	502.06	ppb	2.436	0.49%
Sr 421.552†	69182.3	492.94	ug/L	1.553	492.94	ppb	1.553	0.32%
Ti 334.940†	255465.7	505.95	ug/L	0.601	505.95	ppb	0.601	0.12%
Tl 190.801†	1106.6	505.19	ug/L	5.039	505.19	ppb	5.039	1.00%
U 409.014†	14873.8	491.50	ug/L	1.896	491.50	ppb	1.896	0.39%
V 292.402†	64793.0	509.75	ug/L	0.280	509.75	ppb	0.280	0.05%
Zn 213.857†	46374.1	493.66	ug/L	0.193	493.66	ppb	0.193	0.04%
SiO2†	137329.5	10495	ug/L	47.2	10495	ppb	47.2	0.45%

Sequence No.: 85
Sample ID: 246838001|952949|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 102
Date Collected: 3/5/2010 04:09:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246838001|952949|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4849.8	4849.8	102	%			04:10:57
1	Y RADIAL	5125.5	5125.5	101.7	%			04:10:57
1	Al 396.153Radial†	22.2	104.2	95.406	ug/L	95.406	ppb	04:11:17
1	Ca 317.933Radial†	59.0	39.5	70.671	ug/L	70.671	ppb	04:11:17
1	Fe 238.204 Radial†	14.2	6.6	68.845	ug/L	68.845	ppb	04:11:17
1	K 766.490 Radial†	3755.5	1369.8	258.57	ug/L	258.57	ppb	04:10:57
1	Mg 279.077 IEC†	0.4	-1.7	-66.979	ug/L	-66.979	ppb	04:11:17
1	Na 589.592 Radial†	-142.4	597.6	181.85	ug/L	181.85	ppb	04:10:57
1	Sr 421.552†	118.6	97.1	0.6915	ug/L	0.6915	ppb	04:10:57
1	Sc 361.383	802618.7	802618.7	101.49	%			04:12:14
1	Y 371.029	720157.5	720157.5	101.86	%			04:12:14
1	Ag 328.068†	140.2	-38.3	-0.1737	ug/L	-0.1737	ppb	04:12:14
1	As 188.979†	-35.7	-6.5	-2.8020	ug/L	-2.8020	ppb	04:12:34
1	B 249.677†	751.3	964.5	23.974	ug/L	23.974	ppb	04:12:14
1	Ba 233.527†	70.6	73.6	0.8560	ug/L	0.8560	ppb	04:12:34
1	Be 313.107†	-9234.9	233.5	0.0953	ug/L	0.0953	ppb	04:12:14
1	Cd 226.502†	-180.5	4.7	0.0591	ug/L	0.0591	ppb	04:12:34
1	Co 228.616†	-65.3	-0.0	-0.0059	ug/L	-0.0059	ppb	04:12:34
1	Cr 267.716†	157.1	93.5	1.2479	ug/L	1.2479	ppb	04:12:34
1	Cu 324.752†	8771.1	918.3	3.3895	ug/L	3.3895	ppb	04:12:14
1	Mn 257.610†	1566.8	1113.3	1.7587	ug/L	1.7587	ppb	04:12:34
1	Mo 202.031†	9.8	-2.4	-0.2080	ug/L	-0.2080	ppb	04:12:34
1	Ni 231.604†	120.7	38.4	1.1863	ug/L	1.1863	ppb	04:12:34
1	P 214.914†	228.4	26.2	13.504	ug/L	13.504	ppb	04:12:34
1	Pb 220.353†	-64.5	-6.1	-0.9501	ug/L	-0.9501	ppb	04:12:34
1	S 181.975 Axial†	65.9	23.9	29.709	ug/L	29.709	ppb	04:12:34
1	Sb 206.836†	34.7	1.3	0.4879	ug/L	0.4879	ppb	04:12:34
1	Se 196.026†	-20.6	-1.3	-0.6323	ug/L	-0.6323	ppb	04:12:34
1	Si 251.611†	49784.2	48500.7	1729.7	ug/L	1729.7	ppb	04:12:14
1	Sn 189.927†	6.0	-7.2	-1.6288	ug/L	-1.6288	ppb	04:12:34
1	Ti 334.940†	-461.5	880.0	1.7569	ug/L	1.7569	ppb	04:12:14
1	Tl 190.801†	-41.2	-4.9	-2.1830	ug/L	-2.1830	ppb	04:12:34
1	U 409.014†	-2336.0	66.9	2.2085	ug/L	2.2085	ppb	04:12:14
1	V 292.402†	-1672.2	11.7	0.0783	ug/L	0.0783	ppb	04:12:14
1	Zn 213.857†	1037.9	225.4	2.3993	ug/L	2.3993	ppb	04:12:34
1	SiO2†	50124.3	48826.6	3736.4	ug/L	3736.4	ppb	04:13:31
2	Sc Radial	4868.3	4868.3	103	%			04:11:22
2	Y RADIAL	5179.8	5179.8	102.8	%			04:11:22
2	Al 396.153Radial†	23.4	105.3	96.386	ug/L	96.386	ppb	04:11:42
2	Ca 317.933Radial†	63.3	43.5	77.857	ug/L	77.857	ppb	04:11:42
2	Fe 238.204 Radial†	13.7	6.1	63.611	ug/L	63.611	ppb	04:11:42
2	K 766.490 Radial†	3751.5	1352.0	255.20	ug/L	255.20	ppb	04:11:22
2	Mg 279.077 IEC†	2.4	0.2	9.7674	ug/L	9.7674	ppb	04:11:42
2	Na 589.592 Radial†	-173.0	568.3	172.93	ug/L	172.93	ppb	04:11:22
2	Sr 421.552†	51.2	31.0	0.2200	ug/L	0.2200	ppb	04:11:22
2	Sc 361.383	784334.3	784334.3	99.181	%			04:12:40
2	Y 371.029	700490.3	700490.3	99.081	%			04:12:40
2	Ag 328.068†	277.7	103.5	0.5392	ug/L	0.5392	ppb	04:12:40
2	As 188.979†	-36.2	-7.9	-3.3864	ug/L	-3.3864	ppb	04:13:00
2	B 249.677†	760.8	991.3	24.642	ug/L	24.642	ppb	04:12:40
2	Ba 233.527†	79.2	83.8	0.9745	ug/L	0.9745	ppb	04:13:00
2	Be 313.107†	-9319.1	-63.6	-0.0206	ug/L	-0.0206	ppb	04:12:40
2	Cd 226.502†	-185.1	-4.1	-0.0615	ug/L	-0.0615	ppb	04:13:00
2	Co 228.616†	-55.0	8.9	0.2629	ug/L	0.2629	ppb	04:13:00
2	Cr 267.716†	144.6	84.6	1.1294	ug/L	1.1294	ppb	04:13:00
2	Cu 324.752†	8805.6	1154.6	4.2623	ug/L	4.2623	ppb	04:12:40
2	Mn 257.610†	1537.0	1119.3	1.7643	ug/L	1.7643	ppb	04:13:00
2	Mo 202.031†	19.1	7.3	0.6660	ug/L	0.6660	ppb	04:13:00
2	Ni 231.604†	121.5	42.0	1.2974	ug/L	1.2974	ppb	04:13:00

2	P 214.914†	221.5	24.5	12.417	ug/L	12.417 ppb	04:13:00
2	Pb 220.353†	-74.0	-17.1	-2.7023	ug/L	-2.7023 ppb	04:13:00
2	S 181.975 Axial†	63.8	23.3	28.933	ug/L	28.933 ppb	04:13:00
2	Sb 206.836†	27.3	-5.3	-2.1014	ug/L	-2.1014 ppb	04:13:00
2	Se 196.026†	-12.1	6.8	4.1828	ug/L	4.1828 ppb	04:13:00
2	Si 251.611†	49837.9	49698.3	1772.4	ug/L	1772.4 ppb	04:12:40
2	Sn 189.927†	7.6	-5.4	-1.2172	ug/L	-1.2172 ppb	04:13:00
2	Ti 334.940†	-393.2	938.3	1.8682	ug/L	1.8682 ppb	04:12:40
2	Tl 190.801†	-36.3	-0.9	-0.3971	ug/L	-0.3971 ppb	04:13:00
2	U 409.014†	-2357.1	-8.0	-0.2751	ug/L	-0.2751 ppb	04:12:40
2	V 292.402†	-1625.5	20.4	0.1555	ug/L	0.1555 ppb	04:12:40
2	Zn 213.857†	1039.9	251.2	2.6759	ug/L	2.6759 ppb	04:13:00
2	SiO2†	48679.2	48520.9	3712.9	ug/L	3712.9 ppb	04:13:36
3	Sc Radial	4771.5	4771.5	100	%		04:11:48
3	Y RADIAL	5026.9	5026.9	99.74	%		04:11:48
3	Al 396.153Radial†	13.0	95.4	87.360	ug/L	87.360 ppb	04:12:08
3	Ca 317.933Radial†	55.8	37.3	66.710	ug/L	66.710 ppb	04:12:08
3	Fe 238.204 Radial†	14.1	6.7	69.896	ug/L	69.896 ppb	04:12:08
3	K 766.490 Radial†	3735.3	1410.1	266.18	ug/L	266.18 ppb	04:11:48
3	Mg 279.077 IEC†	0.1	-2.0	-77.668	ug/L	-77.668 ppb	04:12:08
3	Na 589.592 Radial†	-171.1	566.9	172.49	ug/L	172.49 ppb	04:11:48
3	Sr 421.552†	52.0	32.8	0.2331	ug/L	0.2331 ppb	04:11:48
3	Sc 361.383	838114.2	838114.2	105.98	%		04:13:05
3	Y 371.029	761187.2	761187.2	107.67	%		04:13:05
3	Ag 328.068†	252.4	61.7	0.3305	ug/L	0.3305 ppb	04:13:05
3	As 188.979†	-31.3	-0.9	-0.3657	ug/L	-0.3657 ppb	04:13:25
3	B 249.677†	699.7	884.5	21.983	ug/L	21.983 ppb	04:13:05
3	Ba 233.527†	69.9	70.0	0.8139	ug/L	0.8139 ppb	04:13:25
3	Be 313.107†	-9225.2	627.9	0.2498	ug/L	0.2498 ppb	04:13:05
3	Cd 226.502†	-176.5	16.1	0.2142	ug/L	0.2142 ppb	04:13:25
3	Co 228.616†	-58.3	9.4	0.2735	ug/L	0.2735 ppb	04:13:25
3	Cr 267.716†	142.6	73.3	0.9793	ug/L	0.9793 ppb	04:13:25
3	Cu 324.752†	8734.9	518.2	1.9153	ug/L	1.9153 ppb	04:13:05
3	Mn 257.610†	1543.6	1026.0	1.6221	ug/L	1.6221 ppb	04:13:25
3	Mo 202.031†	10.8	-1.8	-0.1535	ug/L	-0.1535 ppb	04:13:25
3	Ni 231.604†	119.4	32.2	0.9931	ug/L	0.9931 ppb	04:13:25
3	P 214.914†	214.4	3.5	1.4690	ug/L	1.4690 ppb	04:13:25
3	Pb 220.353†	-63.9	-2.7	-0.4210	ug/L	-0.4210 ppb	04:13:25
3	S 181.975 Axial†	64.6	19.9	24.758	ug/L	24.758 ppb	04:13:25
3	Sb 206.836†	33.7	-1.1	-0.4330	ug/L	-0.4330 ppb	04:13:25
3	Se 196.026†	-18.2	1.8	1.2086	ug/L	1.2086 ppb	04:13:25
3	Si 251.611†	48282.2	45006.1	1605.1	ug/L	1605.1 ppb	04:13:05
3	Sn 189.927†	13.0	-0.8	-0.1833	ug/L	-0.1833 ppb	04:13:25
3	Ti 334.940†	-432.7	926.5	1.8507	ug/L	1.8507 ppb	04:13:05
3	Tl 190.801†	-28.7	8.6	3.9226	ug/L	3.9226 ppb	04:13:25
3	U 409.014†	-2530.2	-18.8	-0.6329	ug/L	-0.6329 ppb	04:13:05
3	V 292.402†	-1766.6	-7.6	-0.0764	ug/L	-0.0764 ppb	04:13:05
3	Zn 213.857†	1016.7	162.0	1.7213	ug/L	1.7213 ppb	04:13:25
3	SiO2†	49421.3	46071.7	3525.5	ug/L	3525.5 ppb	04:13:41

Mean Data: 246838001|952949|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	808355.8	102.22	%	3.458				3.38%
Sc Radial	4829.9	102	%	1.1				1.06%
Y 371.029	727278.3	102.87	%	4.380				4.26%
Y RADIAL	5110.7	101.4	%	1.54				1.52%
Ag 328.068†	42.3	0.2320	ug/L	0.36651	0.2320	ppb	0.36651	157.96%
Al 396.153Radial†	101.6	93.051	ug/L	4.9529	93.051	ppb	4.9529	5.32%
As 188.979†	-5.1	-2.1847	ug/L	1.60216	-2.1847	ppb	1.60216	73.34%
B 249.677†	946.8	23.533	ug/L	1.3834	23.533	ppb	1.3834	5.88%
Ba 233.527†	75.8	0.8815	ug/L	0.08329	0.8815	ppb	0.08329	9.45%
Be 313.107†	265.9	0.1082	ug/L	0.13570	0.1082	ppb	0.13570	125.46%
Ca 317.933Radial†	40.1	71.746	ug/L	5.6505	71.746	ppb	5.6505	7.88%
Cd 226.502†	5.6	0.0706	ug/L	0.13822	0.0706	ppb	0.13822	195.74%
Co 228.616†	6.1	0.1768	ug/L	0.15836	0.1768	ppb	0.15836	89.56%
Cr 267.716†	83.8	1.1189	ug/L	0.13463	1.1189	ppb	0.13463	12.03%
Cu 324.752†	863.7	3.1890	ug/L	1.18624	3.1890	ppb	1.18624	37.20%
Fe 238.204 Radial†	6.5	67.451	ug/L	3.3667	67.451	ppb	3.3667	4.99%
K 766.490 Radial†	1377.3	259.98	ug/L	5.628	259.98	ppb	5.628	2.16%

Mg 279.077 IEC†	-1.1	-44.960	ug/L	47.6953	-44.960	ppb	47.6953 106.08%
Mn 257.610†	1086.2	1.7150	ug/L	0.08055	1.7150	ppb	0.08055 4.70%
Mo 202.031†	1.1	0.1015	ug/L	0.48962	0.1015	ppb	0.48962 482.35%
Na 589.592 Radial†	577.6	175.76	ug/L	5.281	175.76	ppb	5.281 3.00%
Ni 231.604†	37.5	1.1589	ug/L	0.15397	1.1589	ppb	0.15397 13.29%
P 214.914†	18.1	9.1303	ug/L	6.65712	9.1303	ppb	6.65712 72.91%
Pb 220.353†	-8.7	-1.3578	ug/L	1.19405	-1.3578	ppb	1.19405 87.94%
S 181.975 Axial†	22.4	27.800	ug/L	2.6629	27.800	ppb	2.6629 9.58%
Sb 206.836†	-1.7	-0.6822	ug/L	1.31250	-0.6822	ppb	1.31250 192.39%
Se 196.026†	2.4	1.5864	ug/L	2.42971	1.5864	ppb	2.42971 153.16%
Si 251.611†	47735.0	1702.4	ug/L	86.94	1702.4	ppb	86.94 5.11%
Sn 189.927†	-4.5	-1.0098	ug/L	0.74475	-1.0098	ppb	0.74475 73.75%
Sr 421.552†	53.6	0.3815	ug/L	0.26856	0.3815	ppb	0.26856 70.39%
Ti 334.940†	914.9	1.8253	ug/L	0.05984	1.8253	ppb	0.05984 3.28%
Tl 190.801†	0.9	0.4475	ug/L	3.13921	0.4475	ppb	3.13921 701.51%
U 409.014†	13.4	0.4335	ug/L	1.54758	0.4335	ppb	1.54758 357.00%
V 292.402†	8.2	0.0525	ug/L	0.11811	0.0525	ppb	0.11811 225.07%
Zn 213.857†	212.9	2.2655	ug/L	0.49112	2.2655	ppb	0.49112 21.68%
SiO2†	47806.4	3658.3	ug/L	115.55	3658.3	ppb	115.55 3.16%

Sequence No.: 88
Sample ID: 1202042568|952949|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/5/2010 04:29:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042568|952949|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4866.0	4866.0	102	%			04:31:22
1	Y RADIAL	5160.9	5160.9	102.4	%			04:31:22
1	Al 396.153Radial†	-57.6	26.3	24.043	ug/L	24.043	ppb	04:31:42
1	Ca 317.933Radial†	27.4	8.5	15.164	ug/L	15.164	ppb	04:31:42
1	Fe 238.204 Radial†	12.0	4.5	46.365	ug/L	46.365	ppb	04:31:42
1	K 766.490 Radial†	2460.8	94.4	17.820	ug/L	17.820	ppb	04:31:22
1	Mg 279.077 IEC†	-0.4	-2.5	-99.394	ug/L	-99.394	ppb	04:31:42
1	Na 589.592 Radial†	-819.6	-62.7	-19.069	ug/L	-19.069	ppb	04:31:22
1	Sr 421.552†	89.2	68.1	0.4849	ug/L	0.4849	ppb	04:31:22
1	Sc 361.383	795193.1	795193.1	100.55	%			04:32:39
1	Y 371.029	709672.3	709672.3	100.38	%			04:32:39
1	Ag 328.068†	153.2	-24.1	-0.1044	ug/L	-0.1044	ppb	04:32:39
1	As 188.979†	-40.4	-11.5	-4.9874	ug/L	-4.9874	ppb	04:32:59
1	B 249.677†	-439.4	-212.8	-5.2998	ug/L	-5.2998	ppb	04:32:59
1	Ba 233.527†	36.3	40.1	0.4657	ug/L	0.4657	ppb	04:32:59
1	Be 313.107†	-8996.5	385.6	0.1530	ug/L	0.1530	ppb	04:32:39
1	Cd 226.502†	-189.9	-6.3	-0.0913	ug/L	-0.0913	ppb	04:32:59
1	Co 228.616†	-54.2	10.5	0.3092	ug/L	0.3092	ppb	04:32:59
1	Cr 267.716†	79.9	18.3	0.2461	ug/L	0.2461	ppb	04:32:59
1	Cu 324.752†	7846.2	79.3	0.2973	ug/L	0.2973	ppb	04:32:39
1	Mn 257.610†	757.0	322.3	0.5151	ug/L	0.5151	ppb	04:32:59
1	Mo 202.031†	15.5	3.4	0.3137	ug/L	0.3137	ppb	04:32:59
1	Ni 231.604†	98.5	17.5	0.5396	ug/L	0.5396	ppb	04:32:59
1	P 214.914†	212.3	12.3	6.5964	ug/L	6.5964	ppb	04:32:59
1	Pb 220.353†	-72.7	-14.8	-2.3501	ug/L	-2.3501	ppb	04:32:59
1	S 181.975 Axial†	44.2	2.9	3.5928	ug/L	3.5928	ppb	04:32:59
1	Sb 206.836†	23.6	-9.4	-3.6738	ug/L	-3.6738	ppb	04:32:59
1	Se 196.026†	-23.3	-4.2	-2.3584	ug/L	-2.3584	ppb	04:32:59
1	Si 251.611†	827.8	272.1	9.7009	ug/L	9.7009	ppb	04:32:59
1	Sn 189.927†	12.4	-0.7	-0.1583	ug/L	-0.1583	ppb	04:32:59
1	Ti 334.940†	-872.8	466.7	0.9367	ug/L	0.9367	ppb	04:32:39
1	Tl 190.801†	-34.1	1.8	0.8302	ug/L	0.8302	ppb	04:32:59
1	U 409.014†	-2520.1	-137.6	-4.5697	ug/L	-4.5697	ppb	04:32:39
1	V 292.402†	-1696.4	-27.7	-0.2296	ug/L	-0.2296	ppb	04:32:39
1	Zn 213.857†	739.0	-62.3	-0.6805	ug/L	-0.6805	ppb	04:32:59
1	SiO2†	857.5	292.5	22.371	ug/L	22.371	ppb	04:33:55
2	Sc Radial	4806.8	4806.8	101	%			04:31:47
2	Y RADIAL	5130.7	5130.7	101.8	%			04:31:47
2	Al 396.153Radial†	-62.0	21.2	19.379	ug/L	19.379	ppb	04:32:07
2	Ca 317.933Radial†	23.4	4.9	8.7019	ug/L	8.7019	ppb	04:32:07
2	Fe 238.204 Radial†	11.2	3.8	39.705	ug/L	39.705	ppb	04:32:07
2	K 766.490 Radial†	2547.4	209.4	39.549	ug/L	39.549	ppb	04:31:47
2	Mg 279.077 IEC†	4.4	2.2	88.528	ug/L	88.528	ppb	04:32:07
2	Na 589.592 Radial†	-860.1	-112.5	-34.231	ug/L	-34.231	ppb	04:31:47
2	Sr 421.552†	32.4	13.1	0.0933	ug/L	0.0933	ppb	04:31:47
2	Sc 361.383	796582.4	796582.4	100.73	%			04:33:05
2	Y 371.029	710517.8	710517.8	100.50	%			04:33:05
2	Ag 328.068†	262.1	83.8	0.4362	ug/L	0.4362	ppb	04:33:05
2	As 188.979†	-35.6	-6.7	-2.9158	ug/L	-2.9158	ppb	04:33:25
2	B 249.677†	-448.8	-221.3	-5.5114	ug/L	-5.5114	ppb	04:33:25
2	Ba 233.527†	37.1	40.8	0.4749	ug/L	0.4749	ppb	04:33:25
2	Be 313.107†	-9118.3	280.3	0.1122	ug/L	0.1122	ppb	04:33:05
2	Cd 226.502†	-197.5	-13.4	-0.1889	ug/L	-0.1889	ppb	04:33:25
2	Co 228.616†	-45.6	19.0	0.5652	ug/L	0.5652	ppb	04:33:25
2	Cr 267.716†	78.4	16.6	0.2235	ug/L	0.2235	ppb	04:33:25
2	Cu 324.752†	7849.9	69.3	0.2598	ug/L	0.2598	ppb	04:33:05
2	Mn 257.610†	758.9	322.9	0.5077	ug/L	0.5077	ppb	04:33:25
2	Mo 202.031†	18.6	6.5	0.5935	ug/L	0.5935	ppb	04:33:25
2	Ni 231.604†	104.1	22.9	0.7064	ug/L	0.7064	ppb	04:33:25

2	P 214.914†	221.8	21.4	11.508	ug/L	11.508 ppb	04:33:25
2	Pb 220.353†	-60.7	-2.8	-0.4383	ug/L	-0.4383 ppb	04:33:25
2	S 181.975 Axial†	44.5	3.2	3.9127	ug/L	3.9127 ppb	04:33:25
2	Sb 206.836†	39.6	6.4	2.5115	ug/L	2.5115 ppb	04:33:25
2	Se 196.026†	-28.3	-9.1	-5.3271	ug/L	-5.3271 ppb	04:33:25
2	Si 251.611†	818.4	261.3	9.3129	ug/L	9.3129 ppb	04:33:25
2	Sn 189.927†	11.7	-1.4	-0.3299	ug/L	-0.3299 ppb	04:33:25
2	Ti 334.940†	-776.7	563.6	1.1121	ug/L	1.1121 ppb	04:33:05
2	Tl 190.801†	-38.7	-2.7	-1.2368	ug/L	-1.2368 ppb	04:33:25
2	U 409.014†	-2497.9	-111.2	-3.6928	ug/L	-3.6928 ppb	04:33:05
2	V 292.402†	-1659.1	12.2	0.0909	ug/L	0.0909 ppb	04:33:05
2	Zn 213.857†	757.6	-45.2	-0.4964	ug/L	-0.4964 ppb	04:33:25
2	SiO2†	861.3	294.7	22.536	ug/L	22.536 ppb	04:34:00
3	Sc Radial	4777.8	4777.8	101	%		04:32:12
3	Y RADIAL	5053.0	5053.0	100.3	%		04:32:12
3	Al 396.153Radial†	-52.5	30.3	27.784	ug/L	27.784 ppb	04:32:33
3	Ca 317.933Radial†	21.0	2.6	4.6801	ug/L	4.6801 ppb	04:32:33
3	Fe 238.204 Radial†	11.4	4.1	42.178	ug/L	42.178 ppb	04:32:33
3	K 766.490 Radial†	2523.9	201.4	38.045	ug/L	38.045 ppb	04:32:12
3	Mg 279.077 IEC†	2.1	-0.0	-0.2801	ug/L	-0.2801 ppb	04:32:33
3	Na 589.592 Radial†	-887.7	-145.1	-44.139	ug/L	-44.139 ppb	04:32:12
3	Sr 421.552†	52.5	33.2	0.2365	ug/L	0.2365 ppb	04:32:12
3	Sc 361.383	789767.2	789767.2	99.868	%		04:33:30
3	Y 371.029	704875.8	704875.8	99.701	%		04:33:30
3	Ag 328.068†	197.6	21.4	0.1191	ug/L	0.1191 ppb	04:33:30
3	As 188.979†	-25.8	2.8	1.2448	ug/L	1.2448 ppb	04:33:50
3	B 249.677†	-436.2	-212.5	-5.2932	ug/L	-5.2932 ppb	04:33:50
3	Ba 233.527†	45.0	49.1	0.5702	ug/L	0.5702 ppb	04:33:50
3	Be 313.107†	-9020.7	299.9	0.1193	ug/L	0.1193 ppb	04:33:30
3	Cd 226.502†	-188.0	-5.6	-0.0807	ug/L	-0.0807 ppb	04:33:50
3	Co 228.616†	-56.1	8.2	0.2417	ug/L	0.2417 ppb	04:33:50
3	Cr 267.716†	75.5	14.4	0.1921	ug/L	0.1921 ppb	04:33:50
3	Cu 324.752†	7722.4	8.8	0.0351	ug/L	0.0351 ppb	04:33:30
3	Mn 257.610†	756.8	327.4	0.5185	ug/L	0.5185 ppb	04:33:50
3	Mo 202.031†	10.7	-1.3	-0.1125	ug/L	-0.1125 ppb	04:33:50
3	Ni 231.604†	106.5	26.1	0.8060	ug/L	0.8060 ppb	04:33:50
3	P 214.914†	212.1	13.5	7.3184	ug/L	7.3184 ppb	04:33:50
3	Pb 220.353†	-64.7	-7.2	-1.1475	ug/L	-1.1475 ppb	04:33:50
3	S 181.975 Axial†	40.1	-0.9	-1.1415	ug/L	-1.1415 ppb	04:33:50
3	Sb 206.836†	37.5	4.7	1.8410	ug/L	1.8410 ppb	04:33:50
3	Se 196.026†	-16.2	2.7	1.7228	ug/L	1.7228 ppb	04:33:50
3	Si 251.611†	831.4	281.4	10.036	ug/L	10.036 ppb	04:33:50
3	Sn 189.927†	18.7	5.6	1.2845	ug/L	1.2845 ppb	04:33:50
3	Ti 334.940†	-887.5	446.1	0.8845	ug/L	0.8845 ppb	04:33:30
3	Tl 190.801†	-35.4	0.2	0.1049	ug/L	0.1049 ppb	04:33:50
3	U 409.014†	-2377.3	-11.8	-0.3975	ug/L	-0.3975 ppb	04:33:30
3	V 292.402†	-1700.6	-43.6	-0.3478	ug/L	-0.3478 ppb	04:33:30
3	Zn 213.857†	745.6	-50.7	-0.5565	ug/L	-0.5565 ppb	04:33:50
3	SiO2†	856.0	296.9	22.719	ug/L	22.719 ppb	04:34:05

Mean Data: 1202042568|952949|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	793847.6	100.38	%	0.455				0.45%
Sc Radial	4816.9	101	%	0.9				0.93%
Y 371.029	708355.3	100.19	%	0.430				0.43%
Y RADIAL	5114.9	101.5	%	1.10				1.09%
Ag 328.068†	27.0	0.1503	ug/L	0.27164	0.1503	ppb	0.27164	180.69%
Al 396.153Radial†	25.9	23.735	ug/L	4.2108	23.735	ppb	4.2108	17.74%
As 188.979†	-5.1	-2.2194	ug/L	3.17387	-2.2194	ppb	3.17387	143.00%
B 249.677†	-215.5	-5.3681	ug/L	0.12411	-5.3681	ppb	0.12411	2.31%
Ba 233.527†	43.3	0.5036	ug/L	0.05783	0.5036	ppb	0.05783	11.48%
Be 313.107†	321.9	0.1282	ug/L	0.02177	0.1282	ppb	0.02177	16.98%
Ca 317.933Radial†	5.3	9.5154	ug/L	5.28911	9.5154	ppb	5.28911	55.58%
Cd 226.502†	-8.4	-0.1203	ug/L	0.05963	-0.1203	ppb	0.05963	49.57%
Co 228.616†	12.6	0.3720	ug/L	0.17068	0.3720	ppb	0.17068	45.88%
Cr 267.716†	16.4	0.2206	ug/L	0.02711	0.2206	ppb	0.02711	12.29%
Cu 324.752†	52.5	0.1974	ug/L	0.14182	0.1974	ppb	0.14182	71.84%
Fe 238.204 Radial†	4.1	42.749	ug/L	3.3663	42.749	ppb	3.3663	7.87%
K 766.490 Radial†	168.4	31.804	ug/L	12.1344	31.804	ppb	12.1344	38.15%

Mg 279.077 IEC†	-0.1	-3.7153 ug/L	94.00850	-3.7153 ppb	94.00850	>999.9%
Mn 257.610†	324.2	0.5137 ug/L	0.00553	0.5137 ppb	0.00553	1.08%
Mo 202.031†	2.9	0.2649 ug/L	0.35553	0.2649 ppb	0.35553	134.21%
Na 589.592 Radial†	-106.7	-32.480 ug/L	12.6266	-32.480 ppb	12.6266	38.88%
Ni 231.604†	22.2	0.6840 ug/L	0.13462	0.6840 ppb	0.13462	19.68%
P 214.914†	15.7	8.4744 ug/L	2.65223	8.4744 ppb	2.65223	31.30%
Pb 220.353†	-8.3	-1.3120 ug/L	0.96645	-1.3120 ppb	0.96645	73.66%
S 181.975 Axial†	1.7	2.1214 ug/L	2.83023	2.1214 ppb	2.83023	133.42%
Sb 206.836†	0.6	0.2262 ug/L	3.39414	0.2262 ppb	3.39414	>999.9%
Se 196.026†	-3.5	-1.9876 ug/L	3.53957	-1.9876 ppb	3.53957	178.09%
Si 251.611†	271.6	9.6832 ug/L	0.36179	9.6832 ppb	0.36179	3.74%
Sn 189.927†	1.2	0.2655 ug/L	0.88669	0.2655 ppb	0.88669	334.01%
Sr 421.552†	38.1	0.2716 ug/L	0.19817	0.2716 ppb	0.19817	72.97%
Ti 334.940†	492.2	0.9778 ug/L	0.11921	0.9778 ppb	0.11921	12.19%
Tl 190.801†	-0.2	-0.1006 ug/L	1.04869	-0.1006 ppb	1.04869	>999.9%
U 409.014†	-86.9	-2.8867 ug/L	2.19983	-2.8867 ppb	2.19983	76.21%
V 292.402†	-19.7	-0.1622 ug/L	0.22698	-0.1622 ppb	0.22698	139.98%
Zn 213.857†	-52.8	-0.5778 ug/L	0.09390	-0.5778 ppb	0.09390	16.25%
SiO2†	294.7	22.542 ug/L	0.1739	22.542 ppb	0.1739	0.77%

Sequence No.: 89
Sample ID: 1202042569|952949|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 106
Date Collected: 3/5/2010 04:36:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042569|952949|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4828.4	4828.4	102	%			04:38:10
1	Y RADIAL	5024.0	5024.0	99.68	%			04:38:10
1	Al 396.153Radial†	5510.1	5500.7	5012.5	ug/L	5012.5	ppb	04:38:10
1	Ca 317.933Radial†	2813.1	2747.9	4917.5	ug/L	4917.5	ppb	04:38:30
1	Fe 238.204 Radial†	483.4	468.1	4872.8	ug/L	4872.8	ppb	04:38:30
1	K 766.490 Radial†	29972.2	27165.6	5125.5	ug/L	5125.5	ppb	04:38:10
1	Mg 279.077 IEC†	130.4	126.1	4968.1	ug/L	4968.1	ppb	04:38:30
1	Na 589.592 Radial†	14614.0	15107.4	4597.0	ug/L	4597.0	ppb	04:38:10
1	Sr 421.552†	70528.5	69333.4	494.02	ug/L	494.02	ppb	04:38:10
1	Sc 361.383	813767.3	813767.3	102.90	%			04:39:29
1	Y 371.029	721175.3	721175.3	102.01	%			04:39:29
1	Ag 328.068†	97716.9	94784.0	479.17	ug/L	479.17	ppb	04:39:29
1	As 188.979†	1140.1	1136.5	498.38	ug/L	498.38	ppb	04:39:49
1	B 249.677†	19724.1	19392.0	480.04	ug/L	480.04	ppb	04:39:29
1	Ba 233.527†	44594.7	43340.8	503.87	ug/L	503.87	ppb	04:39:29
1	Be 313.107†	1300854.1	1273491.3	499.39	ug/L	499.39	ppb	04:39:29
1	Cd 226.502†	36048.2	35214.0	484.01	ug/L	484.01	ppb	04:39:49
1	Co 228.616†	17111.1	16692.8	496.69	ug/L	496.69	ppb	04:39:49
1	Cr 267.716†	38912.4	37753.5	504.03	ug/L	504.03	ppb	04:39:29
1	Cu 324.752†	149928.1	137975.1	508.89	ug/L	508.89	ppb	04:39:29
1	Mn 257.610†	334906.9	325029.2	510.92	ug/L	510.92	ppb	04:39:29
1	Mo 202.031†	5713.2	5540.0	501.31	ug/L	501.31	ppb	04:39:49
1	Ni 231.604†	17053.4	16491.9	508.85	ug/L	508.85	ppb	04:39:49
1	P 214.914†	1229.7	996.2	441.41	ug/L	441.41	ppb	04:39:49
1	Pb 220.353†	3175.4	3143.4	500.83	ug/L	500.83	ppb	04:39:49
1	S 181.975 Axial†	4165.0	4006.5	4976.0	ug/L	4976.0	ppb	04:39:49
1	Sb 206.836†	1407.6	1335.0	541.47	ug/L	541.47	ppb	04:39:49
1	Se 196.026†	835.2	830.7	506.07	ug/L	506.07	ppb	04:39:49
1	Si 251.611†	141815.8	137264.2	4889.2	ug/L	4889.2	ppb	04:39:29
1	Sn 189.927†	2291.7	2214.0	506.58	ug/L	506.58	ppb	04:39:49
1	Ti 334.940†	263148.2	257059.9	509.12	ug/L	509.12	ppb	04:39:29
1	Tl 190.801†	1103.7	1108.3	505.98	ug/L	505.98	ppb	04:39:49
1	U 409.014†	13004.6	15006.4	495.90	ug/L	495.90	ppb	04:39:29
1	V 292.402†	65528.2	65339.1	514.08	ug/L	514.08	ppb	04:39:29
1	Zn 213.857†	48574.6	46407.1	493.99	ug/L	493.99	ppb	04:39:29
1	SiO2†	144678.1	140036.6	10702	ug/L	10702	ppb	04:40:50
2	Sc Radial	4878.2	4878.2	103	%			04:38:36
2	Y RADIAL	5107.7	5107.7	101.3	%			04:38:36
2	Al 396.153Radial†	5542.8	5477.3	4991.0	ug/L	4991.0	ppb	04:38:36
2	Ca 317.933Radial†	2797.2	2704.2	4839.3	ug/L	4839.3	ppb	04:38:56
2	Fe 238.204 Radial†	477.3	457.3	4761.4	ug/L	4761.4	ppb	04:38:56
2	K 766.490 Radial†	30139.2	27027.7	5099.5	ug/L	5099.5	ppb	04:38:36
2	Mg 279.077 IEC†	131.2	125.6	4947.9	ug/L	4947.9	ppb	04:38:56
2	Na 589.592 Radial†	14514.4	14863.9	4522.9	ug/L	4522.9	ppb	04:38:36
2	Sr 421.552†	70838.7	68928.3	491.14	ug/L	491.14	ppb	04:38:36
2	Sc 361.383	812320.6	812320.6	102.72	%			04:39:57
2	Y 371.029	717636.3	717636.3	101.51	%			04:39:57
2	Ag 328.068†	97373.8	94619.1	478.31	ug/L	478.31	ppb	04:39:57
2	As 188.979†	1145.8	1144.1	501.63	ug/L	501.63	ppb	04:40:17
2	B 249.677†	19644.2	19348.3	478.97	ug/L	478.97	ppb	04:39:57
2	Ba 233.527†	44486.1	43312.2	503.53	ug/L	503.53	ppb	04:39:57
2	Be 313.107†	1294783.4	1269832.9	497.96	ug/L	497.96	ppb	04:39:57
2	Cd 226.502†	36042.5	35270.8	484.80	ug/L	484.80	ppb	04:40:17
2	Co 228.616†	17133.3	16744.0	498.22	ug/L	498.22	ppb	04:40:17
2	Cr 267.716†	38924.7	37832.8	505.08	ug/L	505.08	ppb	04:39:57
2	Cu 324.752†	149835.1	138144.1	509.51	ug/L	509.51	ppb	04:39:57
2	Mn 257.610†	334857.9	325561.1	511.74	ug/L	511.74	ppb	04:39:57
2	Mo 202.031†	5727.2	5563.6	503.42	ug/L	503.42	ppb	04:40:17
2	Ni 231.604†	17053.7	16521.7	509.77	ug/L	509.77	ppb	04:40:17

2	P 214.914†	1231.8	1000.3	443.62 ug/L	443.62 ppb	04:40:17
2	Pb 220.353†	3167.9	3141.5	500.54 ug/L	500.54 ppb	04:40:17
2	S 181.975 Axial†	4191.4	4039.3	5016.7 ug/L	5016.7 ppb	04:40:17
2	Sb 206.836†	1422.7	1352.1	548.22 ug/L	548.22 ppb	04:40:17
2	Se 196.026†	835.8	832.6	506.98 ug/L	506.98 ppb	04:40:17
2	Si 251.611†	141725.0	137421.2	4894.7 ug/L	4894.7 ppb	04:39:57
2	Sn 189.927†	2286.5	2212.9	506.31 ug/L	506.31 ppb	04:40:17
2	Ti 334.940†	262631.2	257012.0	509.01 ug/L	509.01 ppb	04:39:57
2	Tl 190.801†	1104.1	1110.6	507.01 ug/L	507.01 ppb	04:40:17
2	U 409.014†	13016.4	15040.3	497.04 ug/L	497.04 ppb	04:39:57
2	V 292.402†	65309.6	65239.7	513.36 ug/L	513.36 ppb	04:39:57
2	Zn 213.857†	48496.9	46415.5	494.09 ug/L	494.09 ppb	04:39:57
2	SiO2†	141786.5	137472.0	10506 ug/L	10506 ppb	04:40:55
3	Sc Radial	4819.6	4819.6	102 %		04:39:01
3	Y RADIAL	5078.2	5078.2	100.8 %		04:39:01
3	Al 396.153Radial†	5522.9	5523.2	5033.4 ug/L	5033.4 ppb	04:39:01
3	Ca 317.933Radial†	2827.9	2767.5	4952.6 ug/L	4952.6 ppb	04:39:21
3	Fe 238.204 Radial†	481.2	466.8	4859.4 ug/L	4859.4 ppb	04:39:21
3	K 766.490 Radial†	29899.7	27147.9	5122.2 ug/L	5122.2 ppb	04:39:01
3	Mg 279.077 IEC†	132.1	128.0	5044.0 ug/L	5044.0 ppb	04:39:21
3	Na 589.592 Radial†	14337.0	14860.7	4521.9 ug/L	4521.9 ppb	04:39:01
3	Sr 421.552†	70168.3	69104.9	492.39 ug/L	492.39 ppb	04:39:01
3	Sc 361.383	823525.5	823525.5	104.14 %		04:40:24
3	Y 371.029	728354.1	728354.1	103.02 %		04:40:24
3	Ag 328.068†	98726.7	94628.5	478.38 ug/L	478.38 ppb	04:40:24
3	As 188.979†	1135.6	1119.1	490.82 ug/L	490.82 ppb	04:40:44
3	B 249.677†	20070.8	19497.7	482.70 ug/L	482.70 ppb	04:40:24
3	Ba 233.527†	45028.4	43243.7	502.74 ug/L	502.74 ppb	04:40:24
3	Be 313.107†	1310294.7	1267577.5	497.08 ug/L	497.08 ppb	04:40:24
3	Cd 226.502†	35800.6	34561.1	475.03 ug/L	475.03 ppb	04:40:44
3	Co 228.616†	16990.6	16380.0	487.37 ug/L	487.37 ppb	04:40:44
3	Cr 267.716†	39271.6	37650.4	502.65 ug/L	502.65 ppb	04:40:24
3	Cu 324.752†	152115.7	138349.4	510.27 ug/L	510.27 ppb	04:40:24
3	Mn 257.610†	338206.9	324341.7	509.83 ug/L	509.83 ppb	04:40:24
3	Mo 202.031†	5702.5	5464.0	494.44 ug/L	494.44 ppb	04:40:44
3	Ni 231.604†	16980.0	16225.0	500.62 ug/L	500.62 ppb	04:40:44
3	P 214.914†	1213.3	966.2	424.83 ug/L	424.83 ppb	04:40:44
3	Pb 220.353†	3150.1	3082.5	491.16 ug/L	491.16 ppb	04:40:44
3	S 181.975 Axial†	4162.4	3956.0	4913.2 ug/L	4913.2 ppb	04:40:44
3	Sb 206.836†	1406.1	1317.4	534.25 ug/L	534.25 ppb	04:40:44
3	Se 196.026†	816.3	802.8	489.48 ug/L	489.48 ppb	04:40:44
3	Si 251.611†	143596.9	137341.5	4892.0 ug/L	4892.0 ppb	04:40:24
3	Sn 189.927†	2277.1	2173.6	497.35 ug/L	497.35 ppb	04:40:44
3	Ti 334.940†	266298.6	257055.0	509.11 ug/L	509.11 ppb	04:40:24
3	Tl 190.801†	1106.1	1097.9	501.29 ug/L	501.29 ppb	04:40:44
3	U 409.014†	13281.5	15122.5	499.76 ug/L	499.76 ppb	04:40:24
3	V 292.402†	66100.9	65134.5	512.41 ug/L	512.41 ppb	04:40:24
3	Zn 213.857†	49014.3	46270.0	492.57 ug/L	492.57 ppb	04:40:24
3	SiO2†	140533.9	134391.0	10271 ug/L	10271 ppb	04:41:00

Mean Data: 1202042569|952949|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	816537.8	103.25	%	0.771				0.75%
Sc Radial	4842.1	102	%	0.7				0.65%
Y 371.029	722388.6	102.18	%	0.772				0.76%
Y RADIAL	5070.0	100.6	%	0.84				0.84%
Ag 328.068†	94677.2	478.62	ug/L	0.481	478.62	ppb	0.481	0.10%
Al 396.153Radial†	5500.4	5012.3	ug/L	21.24	5012.3	ppb	21.24	0.42%
As 188.979†	1133.2	496.94	ug/L	5.545	496.94	ppb	5.545	1.12%
B 249.677†	19412.7	480.57	ug/L	1.920	480.57	ppb	1.920	0.40%
Ba 233.527†	43298.9	503.38	ug/L	0.580	503.38	ppb	0.580	0.12%
Be 313.107†	1270300.5	498.14	ug/L	1.168	498.14	ppb	1.168	0.23%
Ca 317.933Radial†	2739.9	4903.1	ug/L	57.99	4903.1	ppb	57.99	1.18%
Cd 226.502†	35015.3	481.28	ug/L	5.427	481.28	ppb	5.427	1.13%
Co 228.616†	16605.6	494.09	ug/L	5.874	494.09	ppb	5.874	1.19%
Cr 267.716†	37745.6	503.92	ug/L	1.220	503.92	ppb	1.220	0.24%
Cu 324.752†	138156.2	509.56	ug/L	0.690	509.56	ppb	0.690	0.14%
Fe 238.204 Radial†	464.1	4831.2	ug/L	60.82	4831.2	ppb	60.82	1.26%
K 766.490 Radial†	27113.7	5115.7	ug/L	14.14	5115.7	ppb	14.14	0.28%

Mg 279.077 IEC†	126.5	4986.7 ug/L	50.67	4986.7 ppb	50.67	1.02%
Mn 257.610†	324977.3	510.83 ug/L	0.958	510.83 ppb	0.958	0.19%
Mo 202.031†	5522.5	499.72 ug/L	4.699	499.72 ppb	4.699	0.94%
Na 589.592 Radial†	14944.0	4547.3 ug/L	43.06	4547.3 ppb	43.06	0.95%
Ni 231.604†	16412.9	506.42 ug/L	5.040	506.42 ppb	5.040	1.00%
P 214.914†	987.6	436.62 ug/L	10.272	436.62 ppb	10.272	2.35%
Pb 220.353†	3122.5	497.51 ug/L	5.504	497.51 ppb	5.504	1.11%
S 181.975 Axial†	4000.6	4968.6 ug/L	52.16	4968.6 ppb	52.16	1.05%
Sb 206.836†	1334.8	541.31 ug/L	6.985	541.31 ppb	6.985	1.29%
Se 196.026†	822.0	500.84 ug/L	9.852	500.84 ppb	9.852	1.97%
Si 251.611†	137342.3	4892.0 ug/L	2.79	4892.0 ppb	2.79	0.06%
Sn 189.927†	2200.2	503.41 ug/L	5.249	503.41 ppb	5.249	1.04%
Sr 421.552†	69122.2	492.52 ug/L	1.447	492.52 ppb	1.447	0.29%
Ti 334.940†	257042.3	509.08 ug/L	0.057	509.08 ppb	0.057	0.01%
Tl 190.801†	1105.6	504.76 ug/L	3.049	504.76 ppb	3.049	0.60%
U 409.014†	15056.4	497.57 ug/L	1.981	497.57 ppb	1.981	0.40%
V 292.402†	65237.7	513.28 ug/L	0.840	513.28 ppb	0.840	0.16%
Zn 213.857†	46364.2	493.55 ug/L	0.850	493.55 ppb	0.850	0.17%
SiO2†	137299.9	10493 ug/L	216.2	10493 ppb	216.2	2.06%

Sequence No.: 90
Sample ID: 1202042570|952949|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 107
Date Collected: 3/5/2010 04:43:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042570|952949|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4481.1	4481.1	94.4	%			04:45:25
1	Y RADIAL	4998.8	4998.8	99.18	%			04:45:05
1	Al 396.153Radial†	-72.0	6.2	5.6853	ug/L	5.6853	ppb	04:45:25
1	Ca 317.933Radial†	18.7	1.5	2.7726	ug/L	2.7726	ppb	04:45:25
1	Fe 238.204 Radial†	7.4	0.5	5.6974	ug/L	5.6974	ppb	04:45:25
1	K 766.490 Radial†	2589.6	437.0	82.550	ug/L	82.550	ppb	04:45:05
1	Mg 279.077 IEC†	0.3	-1.8	-70.339	ug/L	-70.339	ppb	04:45:25
1	Na 589.592 Radial†	-884.8	-200.4	-60.991	ug/L	-60.991	ppb	04:45:05
1	Sr 421.552†	25.5	8.1	0.0578	ug/L	0.0578	ppb	04:45:05
1	Sc 361.383	796478.6	796478.6	100.72	%			04:46:22
1	Y 371.029	715953.1	715953.1	101.27	%			04:46:22
1	Ag 328.068†	173.0	-4.7	-0.0240	ug/L	-0.0240	ppb	04:46:22
1	As 188.979†	-30.9	-2.1	-0.8910	ug/L	-0.8910	ppb	04:46:42
1	B 249.677†	-339.5	-112.8	-2.8071	ug/L	-2.8071	ppb	04:46:42
1	Ba 233.527†	21.5	25.3	0.2925	ug/L	0.2925	ppb	04:46:42
1	Be 313.107†	-9140.7	256.9	0.1011	ug/L	0.1011	ppb	04:46:22
1	Cd 226.502†	-189.5	-5.6	-0.0772	ug/L	-0.0772	ppb	04:46:42
1	Co 228.616†	-55.2	9.6	0.2841	ug/L	0.2841	ppb	04:46:42
1	Cr 267.716†	69.2	7.5	0.0998	ug/L	0.0998	ppb	04:46:42
1	Cu 324.752†	7746.4	-32.5	-0.1188	ug/L	-0.1188	ppb	04:46:22
1	Mn 257.610†	524.6	90.4	0.1455	ug/L	0.1455	ppb	04:46:42
1	Mo 202.031†	13.2	1.1	0.0985	ug/L	0.0985	ppb	04:46:42
1	Ni 231.604†	86.5	5.4	0.1670	ug/L	0.1670	ppb	04:46:42
1	P 214.914†	210.3	10.0	5.4478	ug/L	5.4478	ppb	04:46:42
1	Pb 220.353†	-56.6	1.3	0.2082	ug/L	0.2082	ppb	04:46:42
1	S 181.975 Axial†	46.0	4.6	5.7585	ug/L	5.7585	ppb	04:46:42
1	Sb 206.836†	24.6	-8.4	-3.3022	ug/L	-3.3022	ppb	04:46:42
1	Se 196.026†	-19.0	0.1	0.0767	ug/L	0.0767	ppb	04:46:42
1	Si 251.611†	648.8	93.0	3.3149	ug/L	3.3149	ppb	04:46:42
1	Sn 189.927†	13.9	0.8	0.1756	ug/L	0.1756	ppb	04:46:42
1	Ti 334.940†	-1217.9	125.5	0.2552	ug/L	0.2552	ppb	04:46:22
1	Tl 190.801†	-35.8	0.2	0.0719	ug/L	0.0719	ppb	04:46:42
1	U 409.014†	-2419.8	-34.0	-1.1270	ug/L	-1.1270	ppb	04:46:22
1	V 292.402†	-1762.5	-90.6	-0.7071	ug/L	-0.7071	ppb	04:46:22
1	Zn 213.857†	715.3	-87.1	-0.9373	ug/L	-0.9373	ppb	04:46:42
1	SiO2†	601.9	37.3	2.8525	ug/L	2.8525	ppb	04:47:38
2	Sc Radial	4488.2	4488.2	94.5	%			04:45:50
2	Y RADIAL	5049.4	5049.4	100.2	%			04:45:30
2	Al 396.153Radial†	-69.8	8.7	7.9338	ug/L	7.9338	ppb	04:45:50
2	Ca 317.933Radial†	17.8	0.5	0.9808	ug/L	0.9808	ppb	04:45:50
2	Fe 238.204 Radial†	7.6	0.8	8.0023	ug/L	8.0023	ppb	04:45:50
2	K 766.490 Radial†	2537.5	377.6	71.318	ug/L	71.318	ppb	04:45:30
2	Mg 279.077 IEC†	1.5	-0.6	-21.917	ug/L	-21.917	ppb	04:45:50
2	Na 589.592 Radial†	-821.2	-131.7	-40.062	ug/L	-40.062	ppb	04:45:30
2	Sr 421.552†	34.9	18.0	0.1283	ug/L	0.1283	ppb	04:45:30
2	Sc 361.383	795441.3	795441.3	100.59	%			04:46:47
2	Y 371.029	713106.0	713106.0	100.87	%			04:46:47
2	Ag 328.068†	243.3	65.4	0.3350	ug/L	0.3350	ppb	04:46:47
2	As 188.979†	-33.7	-4.9	-2.1206	ug/L	-2.1206	ppb	04:47:07
2	B 249.677†	-337.9	-111.7	-2.7770	ug/L	-2.7770	ppb	04:47:07
2	Ba 233.527†	11.7	15.6	0.1813	ug/L	0.1813	ppb	04:47:07
2	Be 313.107†	-9159.1	226.7	0.0893	ug/L	0.0893	ppb	04:46:47
2	Cd 226.502†	-183.0	0.7	0.0074	ug/L	0.0074	ppb	04:47:07
2	Co 228.616†	-82.2	-17.4	-0.5168	ug/L	-0.5168	ppb	04:47:07
2	Cr 267.716†	80.0	18.3	0.2466	ug/L	0.2466	ppb	04:47:07
2	Cu 324.752†	7730.7	-38.0	-0.1367	ug/L	-0.1367	ppb	04:46:47
2	Mn 257.610†	503.0	69.6	0.1111	ug/L	0.1111	ppb	04:47:07
2	Mo 202.031†	16.4	4.3	0.3923	ug/L	0.3923	ppb	04:47:07
2	Ni 231.604†	77.0	-4.0	-0.1221	ug/L	-0.1221	ppb	04:47:07

2	P 214.914†	203.1	3.1	1.6625	ug/L	1.6625 ppb	04:47:07
2	Pb 220.353†	-54.6	3.2	0.5153	ug/L	0.5153 ppb	04:47:07
2	S 181.975 Axial†	42.4	1.1	1.3844	ug/L	1.3844 ppb	04:47:07
2	Sb 206.836†	30.9	-2.1	-0.8641	ug/L	-0.8641 ppb	04:47:07
2	Se 196.026†	-20.3	-1.2	-0.7025	ug/L	-0.7025 ppb	04:47:07
2	Si 251.611†	621.5	66.7	2.3748	ug/L	2.3748 ppb	04:47:07
2	Sn 189.927†	4.2	-8.9	-2.0332	ug/L	-2.0332 ppb	04:47:07
2	Ti 334.940†	-1205.5	136.3	0.2743	ug/L	0.2743 ppb	04:46:47
2	Tl 190.801†	-29.9	5.9	2.6987	ug/L	2.6987 ppb	04:47:07
2	U 409.014†	-2551.8	-168.3	-5.5816	ug/L	-5.5816 ppb	04:46:47
2	V 292.402†	-1681.7	-12.6	-0.1049	ug/L	-0.1049 ppb	04:46:47
2	Zn 213.857†	693.6	-107.7	-1.1576	ug/L	-1.1576 ppb	04:47:07
2	SiO2†	676.4	112.2	8.5725	ug/L	8.5725 ppb	04:47:43
3	Sc Radial	4492.0	4492.0	94.6	%		04:46:15
3	Y RADIAL	5090.6	5090.6	101.0	%		04:45:55
3	Al 396.153Radial†	-85.1	-7.5	-6.8605	ug/L	-6.8605 ppb	04:46:15
3	Ca 317.933Radial†	18.6	1.4	2.5622	ug/L	2.5622 ppb	04:46:15
3	Fe 238.204 Radial†	8.3	1.5	15.971	ug/L	15.971 ppb	04:46:15
3	K 766.490 Radial†	2492.9	328.2	61.999	ug/L	61.999 ppb	04:45:55
3	Mg 279.077 IEC†	0.4	-1.6	-64.753	ug/L	-64.753 ppb	04:46:15
3	Na 589.592 Radial†	-829.0	-139.1	-42.336	ug/L	-42.336 ppb	04:45:55
3	Sr 421.552†	17.9	-0.0	-0.0003	ug/L	-0.0003 ppb	04:45:55
3	Sc 361.383	792704.0	792704.0	100.24	%		04:47:12
3	Y 371.029	711663.3	711663.3	100.66	%		04:47:12
3	Ag 328.068†	226.9	49.9	0.2557	ug/L	0.2557 ppb	04:47:12
3	As 188.979†	-30.9	-2.2	-0.9347	ug/L	-0.9347 ppb	04:47:32
3	B 249.677†	-348.3	-123.2	-3.0667	ug/L	-3.0667 ppb	04:47:32
3	Ba 233.527†	3.9	7.9	0.0919	ug/L	0.0919 ppb	04:47:32
3	Be 313.107†	-9119.6	234.6	0.0927	ug/L	0.0927 ppb	04:47:12
3	Cd 226.502†	-186.8	-3.7	-0.0531	ug/L	-0.0531 ppb	04:47:32
3	Co 228.616†	-60.0	4.5	0.1315	ug/L	0.1315 ppb	04:47:32
3	Cr 267.716†	74.3	12.9	0.1728	ug/L	0.1728 ppb	04:47:32
3	Cu 324.752†	7741.6	-0.7	-0.0007	ug/L	-0.0007 ppb	04:47:12
3	Mn 257.610†	511.8	80.2	0.1302	ug/L	0.1302 ppb	04:47:32
3	Mo 202.031†	8.9	-3.1	-0.2827	ug/L	-0.2827 ppb	04:47:32
3	Ni 231.604†	92.8	12.0	0.3717	ug/L	0.3717 ppb	04:47:32
3	P 214.914†	218.7	19.3	10.474	ug/L	10.474 ppb	04:47:32
3	Pb 220.353†	-65.0	-7.4	-1.1737	ug/L	-1.1737 ppb	04:47:32
3	S 181.975 Axial†	42.8	1.7	2.0574	ug/L	2.0574 ppb	04:47:32
3	Sb 206.836†	28.0	-4.9	-1.9225	ug/L	-1.9225 ppb	04:47:32
3	Se 196.026†	-29.6	-10.6	-6.2423	ug/L	-6.2423 ppb	04:47:32
3	Si 251.611†	628.1	75.4	2.6936	ug/L	2.6936 ppb	04:47:32
3	Sn 189.927†	15.2	2.1	0.4781	ug/L	0.4781 ppb	04:47:32
3	Ti 334.940†	-1136.5	200.9	0.4043	ug/L	0.4043 ppb	04:47:12
3	Tl 190.801†	-40.6	-4.8	-2.1811	ug/L	-2.1811 ppb	04:47:32
3	U 409.014†	-2419.4	-45.1	-1.4962	ug/L	-1.4962 ppb	04:47:12
3	V 292.402†	-1696.4	-33.1	-0.2678	ug/L	-0.2678 ppb	04:47:12
3	Zn 213.857†	684.0	-114.9	-1.2394	ug/L	-1.2394 ppb	04:47:32
3	SiO2†	624.4	62.6	4.7997	ug/L	4.7997 ppb	04:47:48

Mean Data: 1202042570|952949|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	794874.6	100.51	%	0.247				0.25%
Sc Radial	4487.1	94.5	%	0.12				0.12%
Y 371.029	713574.2	100.93	%	0.309				0.31%
Y RADIAL	5046.3	100.1	%	0.91				0.91%
Ag 328.068†	36.8	0.1889	ug/L	0.18858	0.1889	ppb	0.18858	99.82%
Al 396.153Radial†	2.5	2.2529	ug/L	7.97209	2.2529	ppb	7.97209	353.86%
As 188.979†	-3.0	-1.3154	ug/L	0.69766	-1.3154	ppb	0.69766	53.04%
B 249.677†	-115.9	-2.8836	ug/L	0.15929	-2.8836	ppb	0.15929	5.52%
Ba 233.527†	16.3	0.1886	ug/L	0.10046	0.1886	ppb	0.10046	53.28%
Be 313.107†	239.4	0.0944	ug/L	0.00605	0.0944	ppb	0.00605	6.41%
Ca 317.933Radial†	1.2	2.1052	ug/L	0.97941	2.1052	ppb	0.97941	46.52%
Cd 226.502†	-2.9	-0.0410	ug/L	0.04359	-0.0410	ppb	0.04359	106.42%
Co 228.616†	-1.1	-0.0337	ug/L	0.42524	-0.0337	ppb	0.42524	>999.9%
Cr 267.716†	12.9	0.1731	ug/L	0.07341	0.1731	ppb	0.07341	42.42%
Cu 324.752†	-23.7	-0.0854	ug/L	0.07388	-0.0854	ppb	0.07388	86.50%
Fe 238.204 Radial†	1.0	9.8901	ug/L	5.39048	9.8901	ppb	5.39048	54.50%
K 766.490 Radial†	381.0	71.956	ug/L	10.2903	71.956	ppb	10.2903	14.30%

Mg 279.077 IEC†	-1.3	-52.336	ug/L	26.4918	-52.336	ppb	26.4918 50.62%
Mn 257.610†	80.1	0.1289	ug/L	0.01725	0.1289	ppb	0.01725 13.38%
Mo 202.031†	0.8	0.0694	ug/L	0.33842	0.0694	ppb	0.33842 487.77%
Na 589.592 Radial†	-157.1	-47.796	ug/L	11.4832	-47.796	ppb	11.4832 24.03%
Ni 231.604†	4.5	0.1389	ug/L	0.24809	0.1389	ppb	0.24809 178.62%
P 214.914†	10.8	5.8614	ug/L	4.42018	5.8614	ppb	4.42018 75.41%
Pb 220.353†	-0.9	-0.1501	ug/L	0.89966	-0.1501	ppb	0.89966 599.48%
S 181.975 Axial†	2.5	3.0668	ug/L	2.35524	3.0668	ppb	2.35524 76.80%
Sb 206.836†	-5.2	-2.0296	ug/L	1.22259	-2.0296	ppb	1.22259 60.24%
Se 196.026†	-3.9	-2.2894	ug/L	3.44544	-2.2894	ppb	3.44544 150.50%
Si 251.611†	78.4	2.7944	ug/L	0.47809	2.7944	ppb	0.47809 17.11%
Sn 189.927†	-2.0	-0.4599	ug/L	1.37095	-0.4599	ppb	1.37095 298.13%
Sr 421.552†	8.7	0.0619	ug/L	0.06438	0.0619	ppb	0.06438 103.95%
Ti 334.940†	154.2	0.3113	ug/L	0.08117	0.3113	ppb	0.08117 26.08%
Tl 190.801†	0.4	0.1965	ug/L	2.44231	0.1965	ppb	2.44231 >999.9%
U 409.014†	-82.4	-2.7349	ug/L	2.47218	-2.7349	ppb	2.47218 90.39%
V 292.402†	-45.4	-0.3599	ug/L	0.31147	-0.3599	ppb	0.31147 86.54%
Zn 213.857†	-103.2	-1.1115	ug/L	0.15623	-1.1115	ppb	0.15623 14.06%
SiO2†	70.7	5.4082	ug/L	2.90817	5.4082	ppb	2.90817 53.77%

Sequence No.: 91
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/5/2010 04:49:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4582.2	4582.2	96.5	%			04:51:51
1	Y RADIAL	4846.1	4846.1	96.15	%			04:51:51
1	Al 396.153Radial†	5312.2	5586.8	5091.6	ug/L	5091.6	ppb	04:51:51
1	Ca 317.933Radial†	2824.7	2908.6	5205.0	ug/L	5205.0	ppb	04:52:11
1	Fe 238.204 Radial†	484.2	494.4	5146.5	ug/L	5146.5	ppb	04:52:11
1	K 766.490 Radial†	29014.2	27756.8	5235.4	ug/L	5235.4	ppb	04:51:51
1	Mg 279.077 IEC†	132.1	134.8	5310.5	ug/L	5310.5	ppb	04:52:11
1	Na 589.592 Radial†	27610.2	29345.9	8929.6	ug/L	8929.6	ppb	04:51:51
1	Sr 421.552†	66632.4	69023.5	491.81	ug/L	491.81	ppb	04:51:51
1	Sc 361.383	812865.0	812865.0	102.79	%			04:53:08
1	Y 371.029	719429.6	719429.6	101.76	%			04:53:08
1	Ag 328.068†	101893.4	98952.6	500.17	ug/L	500.17	ppb	04:53:13
1	As 188.979†	1157.8	1155.0	506.37	ug/L	506.37	ppb	04:53:33
1	B 249.677†	20019.3	19700.4	487.63	ug/L	487.63	ppb	04:53:13
1	Ba 233.527†	44172.0	42977.6	499.65	ug/L	499.65	ppb	04:53:13
1	Be 313.107†	1325267.1	1298645.3	509.20	ug/L	509.20	ppb	04:53:08
1	Cd 226.502†	37154.1	36328.8	499.30	ug/L	499.30	ppb	04:53:13
1	Co 228.616†	17492.9	17082.6	508.30	ug/L	508.30	ppb	04:53:13
1	Cr 267.716†	38635.4	37526.0	500.99	ug/L	500.99	ppb	04:53:13
1	Cu 324.752†	145688.1	134011.9	494.29	ug/L	494.29	ppb	04:53:13
1	Mn 257.610†	326435.9	317149.3	498.55	ug/L	498.55	ppb	04:53:13
1	Mo 202.031†	5643.1	5478.1	495.73	ug/L	495.73	ppb	04:53:33
1	Ni 231.604†	16791.7	16255.6	501.55	ug/L	501.55	ppb	04:53:13
1	P 214.914†	4895.3	4563.7	2379.3	ug/L	2379.3	ppb	04:53:33
1	Pb 220.353†	3159.8	3131.6	498.95	ug/L	498.95	ppb	04:53:33
1	S 181.975 Axial†	857.3	793.0	984.17	ug/L	984.17	ppb	04:53:33
1	Sb 206.836†	1309.8	1241.4	504.44	ug/L	504.44	ppb	04:53:33
1	Se 196.026†	831.8	828.2	505.20	ug/L	505.20	ppb	04:53:33
1	Si 251.611†	71886.7	69385.3	2468.4	ug/L	2468.4	ppb	04:53:13
1	Sn 189.927†	2226.4	2153.0	492.66	ug/L	492.66	ppb	04:53:33
1	Ti 334.940†	255403.8	249809.5	494.77	ug/L	494.77	ppb	04:53:13
1	Tl 190.801†	1087.9	1094.1	499.34	ug/L	499.34	ppb	04:53:33
1	U 409.014†	12712.5	14736.2	486.92	ug/L	486.92	ppb	04:53:13
1	V 292.402†	64361.5	64274.7	505.70	ug/L	505.70	ppb	04:53:13
1	Zn 213.857†	48848.3	46725.8	497.44	ug/L	497.44	ppb	04:53:13
1	SiO2†	71629.7	69126.1	5276.2	ug/L	5276.2	ppb	04:54:40
2	Sc Radial	4660.8	4660.8	98.2	%			04:52:16
2	Y RADIAL	4919.6	4919.6	97.61	%			04:52:16
2	Al 396.153Radial†	5417.1	5600.8	5103.9	ug/L	5103.9	ppb	04:52:16
2	Ca 317.933Radial†	2821.6	2856.1	5111.0	ug/L	5111.0	ppb	04:52:36
2	Fe 238.204 Radial†	475.2	476.8	4964.3	ug/L	4964.3	ppb	04:52:36
2	K 766.490 Radial†	29342.2	27583.8	5202.7	ug/L	5202.7	ppb	04:52:16
2	Mg 279.077 IEC†	129.7	130.0	5123.8	ug/L	5123.8	ppb	04:52:36
2	Na 589.592 Radial†	27858.8	29116.5	8859.8	ug/L	8859.8	ppb	04:52:16
2	Sr 421.552†	67615.2	68859.8	490.65	ug/L	490.65	ppb	04:52:16
2	Sc 361.383	798282.3	798282.3	100.94	%			04:53:39
2	Y 371.029	705290.9	705290.9	99.760	%			04:53:39
2	Ag 328.068†	101369.0	100244.0	506.62	ug/L	506.62	ppb	04:53:44
2	As 188.979†	1145.3	1163.2	509.91	ug/L	509.91	ppb	04:54:04
2	B 249.677†	19872.7	19910.9	492.87	ug/L	492.87	ppb	04:53:44
2	Ba 233.527†	44127.1	43718.2	508.24	ug/L	508.24	ppb	04:53:44
2	Be 313.107†	1299592.0	1296763.1	508.48	ug/L	508.48	ppb	04:53:39
2	Cd 226.502†	37150.0	36985.0	508.34	ug/L	508.34	ppb	04:53:44
2	Co 228.616†	17446.2	17347.3	516.19	ug/L	516.19	ppb	04:53:44
2	Cr 267.716†	38534.2	38112.3	508.82	ug/L	508.82	ppb	04:53:44
2	Cu 324.752†	144896.4	135816.8	500.94	ug/L	500.94	ppb	04:53:44
2	Mn 257.610†	325663.2	322185.2	506.45	ug/L	506.45	ppb	04:53:44
2	Mo 202.031†	5657.5	5592.6	506.06	ug/L	506.06	ppb	04:54:04
2	Ni 231.604†	16696.1	16459.4	507.84	ug/L	507.84	ppb	04:53:44

2	P 214.914†	4897.3	4652.6	2426.5 ug/L	2426.5 ppb	04:54:04
2	Pb 220.353†	3159.5	3187.5	507.87 ug/L	507.87 ppb	04:54:04
2	S 181.975 Axial†	862.2	813.1	1009.0 ug/L	1009.0 ppb	04:54:04
2	Sb 206.836†	1305.0	1259.9	512.07 ug/L	512.07 ppb	04:54:04
2	Se 196.026†	833.8	844.9	514.77 ug/L	514.77 ppb	04:54:04
2	Si 251.611†	71659.5	70437.8	2505.8 ug/L	2505.8 ppb	04:53:44
2	Sn 189.927†	2231.3	2197.3	502.79 ug/L	502.79 ppb	04:54:04
2	Ti 334.940†	254731.2	253682.3	502.44 ug/L	502.44 ppb	04:53:44
2	Tl 190.801†	1093.1	1118.6	510.48 ug/L	510.48 ppb	04:54:04
2	U 409.014†	12616.4	14866.9	491.26 ug/L	491.26 ppb	04:53:44
2	V 292.402†	63987.7	65048.2	511.87 ug/L	511.87 ppb	04:53:44
2	Zn 213.857†	48650.3	47397.8	504.64 ug/L	504.64 ppb	04:53:44
2	SiO2†	70895.8	69672.0	5317.7 ug/L	5317.7 ppb	04:54:45
3	Sc Radial	4669.0	4669.0	98.3 %		04:52:41
3	Y RADIAL	4945.9	4945.9	98.13 %		04:52:41
3	Al 396.153Radial†	5433.5	5607.8	5110.7 ug/L	5110.7 ppb	04:52:41
3	Ca 317.933Radial†	2828.0	2857.5	5113.6 ug/L	5113.6 ppb	04:53:01
3	Fe 238.204 Radial†	482.0	482.8	5026.4 ug/L	5026.4 ppb	04:53:01
3	K 766.490 Radial†	29446.3	27637.0	5212.8 ug/L	5212.8 ppb	04:52:41
3	Mg 279.077 IEC†	134.7	134.8	5312.9 ug/L	5312.9 ppb	04:53:01
3	Na 589.592 Radial†	27966.0	29175.6	8877.8 ug/L	8877.8 ppb	04:52:41
3	Sr 421.552†	67796.5	68922.9	491.10 ug/L	491.10 ppb	04:52:41
3	Sc 361.383	810790.4	810790.4	102.53 %		04:54:10
3	Y 371.029	717239.5	717239.5	101.45 %		04:54:10
3	Ag 328.068†	102306.1	99608.7	503.44 ug/L	503.44 ppb	04:54:15
3	As 188.979†	1149.4	1149.7	504.06 ug/L	504.06 ppb	04:54:35
3	B 249.677†	20072.1	19801.8	490.16 ug/L	490.16 ppb	04:54:15
3	Ba 233.527†	44390.3	43300.5	503.39 ug/L	503.39 ppb	04:54:15
3	Be 313.107†	1319364.6	1296187.3	508.25 ug/L	508.25 ppb	04:54:10
3	Cd 226.502†	37279.4	36543.4	502.26 ug/L	502.26 ppb	04:54:15
3	Co 228.616†	17581.9	17213.0	512.18 ug/L	512.18 ppb	04:54:15
3	Cr 267.716†	38737.3	37721.6	503.60 ug/L	503.60 ppb	04:54:15
3	Cu 324.752†	146400.8	135069.7	498.19 ug/L	498.19 ppb	04:54:15
3	Mn 257.610†	327422.1	318923.8	501.33 ug/L	501.33 ppb	04:54:15
3	Mo 202.031†	5642.3	5491.2	496.91 ug/L	496.91 ppb	04:54:35
3	Ni 231.604†	16859.2	16363.3	504.87 ug/L	504.87 ppb	04:54:15
3	P 214.914†	4873.2	4554.3	2373.5 ug/L	2373.5 ppb	04:54:35
3	Pb 220.353†	3148.3	3128.2	498.44 ug/L	498.44 ppb	04:54:35
3	S 181.975 Axial†	855.2	793.1	984.22 ug/L	984.22 ppb	04:54:35
3	Sb 206.836†	1300.3	1235.4	502.08 ug/L	502.08 ppb	04:54:35
3	Se 196.026†	833.0	831.4	506.86 ug/L	506.86 ppb	04:54:35
3	Si 251.611†	72166.2	69836.8	2484.5 ug/L	2484.5 ppb	04:54:15
3	Sn 189.927†	2212.9	2145.3	490.91 ug/L	490.91 ppb	04:54:35
3	Ti 334.940†	256473.5	251488.6	498.08 ug/L	498.08 ppb	04:54:15
3	Tl 190.801†	1094.6	1103.4	503.54 ug/L	503.54 ppb	04:54:35
3	U 409.014†	12778.2	14831.9	490.10 ug/L	490.10 ppb	04:54:15
3	V 292.402†	64591.9	64659.6	508.73 ug/L	508.73 ppb	04:54:15
3	Zn 213.857†	48949.8	46946.3	499.80 ug/L	499.80 ppb	04:54:15
3	SiO2†	71458.4	69137.3	5277.1 ug/L	5277.1 ppb	04:54:51

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	807312.5	102.09	%	0.998				0.98%
Sc Radial	4637.3	97.7	%	1.01				1.03%
Y 371.029	713986.7	100.99	%	1.076				1.07%
Y RADIAL	4903.9	97.30	%	1.027				1.06%
Ag 328.068†	99601.8	503.41	ug/L	3.227	503.41	ppb	3.227	0.64%
QC value within limits for Ag 328.068 Recovery = 100.68%								
Al 396.153Radial†	5598.5	5102.1	ug/L	9.70	5102.1	ppb	9.70	0.19%
QC value within limits for Al 396.153Radial Recovery = 102.04%								
As 188.979†	1156.0	506.78	ug/L	2.946	506.78	ppb	2.946	0.58%
QC value within limits for As 188.979 Recovery = 101.36%								
B 249.677†	19804.4	490.22	ug/L	2.622	490.22	ppb	2.622	0.53%
QC value within limits for B 249.677 Recovery = 98.04%								
Ba 233.527†	43332.1	503.76	ug/L	4.310	503.76	ppb	4.310	0.86%
QC value within limits for Ba 233.527 Recovery = 100.75%								
Be 313.107†	1297198.6	508.64	ug/L	0.497	508.64	ppb	0.497	0.10%
QC value within limits for Be 313.107 Recovery = 101.73%								
Ca 317.933Radial†	2874.0	5143.2	ug/L	53.55	5143.2	ppb	53.55	1.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.86%
Cd 226.502†            36619.0      503.30 ug/L         4.611      503.30 ppb          4.611   0.92%
   QC value within limits for Cd 226.502  Recovery = 100.66%
Co 228.616†            17214.3      512.22 ug/L         3.943      512.22 ppb          3.943   0.77%
   QC value within limits for Co 228.616  Recovery = 102.44%
Cr 267.716†            37786.6      504.47 ug/L         3.983      504.47 ppb          3.983   0.79%
   QC value within limits for Cr 267.716  Recovery = 100.89%
Cu 324.752†           134966.1      497.81 ug/L         3.339      497.81 ppb          3.339   0.67%
   QC value within limits for Cu 324.752  Recovery = 99.56%
Fe 238.204 Radial†       484.7      5045.8 ug/L        92.63      5045.8 ppb         92.63   1.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.92%
K 766.490 Radial†      27659.2      5217.0 ug/L        16.70      5217.0 ppb         16.70   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 104.34%
Mg 279.077 IEC†          133.2      5249.0 ug/L       108.47      5249.0 ppb        108.47   2.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.98%
Mn 257.610†           319419.4      502.11 ug/L         4.008      502.11 ppb          4.008   0.80%
   QC value within limits for Mn 257.610  Recovery = 100.42%
Mo 202.031†             5520.6      499.57 ug/L         5.657      499.57 ppb          5.657   1.13%
   QC value within limits for Mo 202.031  Recovery = 99.91%
Na 589.592 Radial†     29212.7      8889.1 ug/L        36.24      8889.1 ppb         36.24   0.41%
   QC value less than the lower limit for Na 589.592 Radial  Recovery = 88.89%
Ni 231.604†            16359.4      504.75 ug/L         3.145      504.75 ppb          3.145   0.62%
   QC value within limits for Ni 231.604  Recovery = 100.95%
P 214.914†              4590.2      2393.1 ug/L        29.06      2393.1 ppb         29.06   1.21%
   QC value within limits for P 214.914  Recovery = 95.72%
Pb 220.353†             3149.1      501.75 ug/L         5.302      501.75 ppb          5.302   1.06%
   QC value within limits for Pb 220.353  Recovery = 100.35%
S 181.975 Axial†         799.7      992.48 ug/L        14.347      992.48 ppb         14.347   1.45%
   QC value within limits for S 181.975 Axial  Recovery = 99.25%
Sb 206.836†             1245.5      506.20 ug/L         5.218      506.20 ppb          5.218   1.03%
   QC value within limits for Sb 206.836  Recovery = 101.24%
Se 196.026†              834.8      508.94 ug/L         5.111      508.94 ppb          5.111   1.00%
   QC value within limits for Se 196.026  Recovery = 101.79%
Si 251.611†            69886.6      2486.3 ug/L        18.77      2486.3 ppb         18.77   0.75%
   QC value within limits for Si 251.611  Recovery = 99.45%
Sn 189.927†             2165.2      495.45 ug/L         6.417      495.45 ppb          6.417   1.30%
   QC value within limits for Sn 189.927  Recovery = 99.09%
Sr 421.552†            68935.4      491.18 ug/L         0.588      491.18 ppb          0.588   0.12%
   QC value within limits for Sr 421.552  Recovery = 98.24%
Ti 334.940†           251660.1      498.43 ug/L         3.847      498.43 ppb          3.847   0.77%
   QC value within limits for Ti 334.940  Recovery = 99.69%
Tl 190.801†             1105.4      504.45 ug/L         5.629      504.45 ppb          5.629   1.12%
   QC value within limits for Tl 190.801  Recovery = 100.89%
U 409.014†             14811.7      489.43 ug/L         2.245      489.43 ppb          2.245   0.46%
   QC value within limits for U 409.014  Recovery = 97.89%
V 292.402†             64660.8      508.77 ug/L         3.087      508.77 ppb          3.087   0.61%
   QC value within limits for V 292.402  Recovery = 101.75%
Zn 213.857†            47023.3      500.63 ug/L         3.670      500.63 ppb          3.670   0.73%
   QC value within limits for Zn 213.857  Recovery = 100.13%
SiO2†                  69311.8      5290.3 ug/L        23.72      5290.3 ppb         23.72   0.45%
   QC value within limits for SiO2  Recovery = 98.93%
QC Failed.  Continue with analysis.
```

Sequence No.: 92
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/5/2010 04:57:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4736.4	4736.4	99.8	%			04:58:53
1	Y RADIAL	5016.8	5016.8	99.54	%			04:58:53
1	Al 396.153Radial†	-52.8	29.6	27.076	ug/L	27.076	ppb	04:59:13
1	Ca 317.933Radial†	22.5	4.3	7.7380	ug/L	7.7380	ppb	04:59:13
1	Fe 238.204 Radial†	8.4	1.1	11.712	ug/L	11.712	ppb	04:59:13
1	K 766.490 Radial†	2542.5	241.9	45.690	ug/L	45.690	ppb	04:58:53
1	Mg 279.077 IEC†	1.3	-0.8	-30.397	ug/L	-30.397	ppb	04:59:13
1	Na 589.592 Radial†	-850.2	-115.2	-35.039	ug/L	-35.039	ppb	04:58:53
1	Sr 421.552†	41.8	23.0	0.1636	ug/L	0.1636	ppb	04:58:53
1	Sc 361.383	798362.4	798362.4	100.95	%			05:00:10
1	Y 371.029	713180.9	713180.9	100.88	%			05:00:10
1	Ag 328.068†	168.0	-10.0	-0.0498	ug/L	-0.0498	ppb	05:00:10
1	As 188.979†	-37.5	-8.5	-3.6899	ug/L	-3.6899	ppb	05:00:30
1	B 249.677†	-279.6	-52.7	-1.3118	ug/L	-1.3118	ppb	05:00:30
1	Ba 233.527†	12.8	16.7	0.1927	ug/L	0.1927	ppb	05:00:30
1	Be 313.107†	-9076.6	341.8	0.1339	ug/L	0.1339	ppb	05:00:10
1	Cd 226.502†	-187.1	-2.7	-0.0382	ug/L	-0.0382	ppb	05:00:30
1	Co 228.616†	-69.0	-4.0	-0.1171	ug/L	-0.1171	ppb	05:00:30
1	Cr 267.716†	64.8	3.0	0.0388	ug/L	0.0388	ppb	05:00:30
1	Cu 324.752†	7714.1	-82.6	-0.3046	ug/L	-0.3046	ppb	05:00:10
1	Mn 257.610†	459.5	24.7	0.0413	ug/L	0.0413	ppb	05:00:30
1	Mo 202.031†	16.0	3.8	0.3465	ug/L	0.3465	ppb	05:00:30
1	Ni 231.604†	81.4	0.1	0.0033	ug/L	0.0033	ppb	05:00:30
1	P 214.914†	194.1	-6.6	-3.5006	ug/L	-3.5006	ppb	05:00:30
1	Pb 220.353†	-64.4	-6.2	-0.9842	ug/L	-0.9842	ppb	05:00:30
1	S 181.975 Axial†	41.9	0.5	0.5864	ug/L	0.5864	ppb	05:00:30
1	Sb 206.836†	23.4	-9.7	-3.7647	ug/L	-3.7647	ppb	05:00:30
1	Se 196.026†	-26.2	-7.0	-4.0991	ug/L	-4.0991	ppb	05:00:30
1	Si 251.611†	620.8	63.8	2.2695	ug/L	2.2695	ppb	05:00:30
1	Sn 189.927†	19.6	6.3	1.4443	ug/L	1.4443	ppb	05:00:30
1	Ti 334.940†	-1305.9	41.2	0.0847	ug/L	0.0847	ppb	05:00:10
1	Tl 190.801†	-37.7	-1.7	-0.7505	ug/L	-0.7505	ppb	05:00:30
1	U 409.014†	-2360.8	30.1	0.9971	ug/L	0.9971	ppb	05:00:10
1	V 292.402†	-1740.8	-65.0	-0.5003	ug/L	-0.5003	ppb	05:00:10
1	Zn 213.857†	763.1	-41.4	-0.4467	ug/L	-0.4467	ppb	05:00:30
1	SiO2†	626.7	60.4	4.6153	ug/L	4.6153	ppb	05:01:26
2	Sc Radial	4730.2	4730.2	99.6	%			04:59:18
2	Y RADIAL	5015.4	5015.4	99.51	%			04:59:18
2	Al 396.153Radial†	-69.1	13.1	12.005	ug/L	12.005	ppb	04:59:38
2	Ca 317.933Radial†	23.3	5.2	9.2251	ug/L	9.2251	ppb	04:59:38
2	Fe 238.204 Radial†	7.5	0.2	2.1678	ug/L	2.1678	ppb	04:59:38
2	K 766.490 Radial†	2549.5	252.3	47.652	ug/L	47.652	ppb	04:59:18
2	Mg 279.077 IEC†	1.3	-0.8	-33.076	ug/L	-33.076	ppb	04:59:38
2	Na 589.592 Radial†	-868.0	-134.1	-40.817	ug/L	-40.817	ppb	04:59:18
2	Sr 421.552†	30.7	11.9	0.0847	ug/L	0.0847	ppb	04:59:18
2	Sc 361.383	804327.1	804327.1	101.71	%			05:00:36
2	Y 371.029	717633.4	717633.4	101.51	%			05:00:36
2	Ag 328.068†	258.9	78.0	0.3880	ug/L	0.3880	ppb	05:00:36
2	As 188.979†	-25.6	3.5	1.5130	ug/L	1.5130	ppb	05:00:56
2	B 249.677†	-274.0	-45.2	-1.1248	ug/L	-1.1248	ppb	05:00:56
2	Ba 233.527†	3.3	7.3	0.0836	ug/L	0.0836	ppb	05:00:56
2	Be 313.107†	-9252.9	235.1	0.0927	ug/L	0.0927	ppb	05:00:36
2	Cd 226.502†	-188.6	-2.8	-0.0374	ug/L	-0.0374	ppb	05:00:56
2	Co 228.616†	-54.5	10.7	0.3184	ug/L	0.3184	ppb	05:00:56
2	Cr 267.716†	53.6	-8.5	-0.1152	ug/L	-0.1152	ppb	05:00:56
2	Cu 324.752†	7783.4	-71.1	-0.2639	ug/L	-0.2639	ppb	05:00:36
2	Mn 257.610†	462.5	24.3	0.0397	ug/L	0.0397	ppb	05:00:56
2	Mo 202.031†	9.6	-2.5	-0.2255	ug/L	-0.2255	ppb	05:00:56
2	Ni 231.604†	95.5	13.4	0.4140	ug/L	0.4140	ppb	05:00:56

2	P 214.914†	185.2	-16.7	-9.0261 ug/L	-9.0261 ppb	05:00:56
2	Pb 220.353†	-59.2	-0.7	-0.1056 ug/L	-0.1056 ppb	05:00:56
2	S 181.975 Axial†	44.6	2.8	3.5153 ug/L	3.5153 ppb	05:00:56
2	Sb 206.836†	37.0	3.5	1.3597 ug/L	1.3597 ppb	05:00:56
2	Se 196.026†	-33.8	-14.3	-8.4821 ug/L	-8.4821 ppb	05:00:56
2	Si 251.611†	614.2	52.8	1.8846 ug/L	1.8846 ppb	05:00:56
2	Sn 189.927†	7.8	-5.4	-1.2262 ug/L	-1.2262 ppb	05:00:56
2	Ti 334.940†	-1202.0	152.9	0.3056 ug/L	0.3056 ppb	05:00:36
2	Tl 190.801†	-24.3	11.8	5.3585 ug/L	5.3585 ppb	05:00:56
2	U 409.014†	-2318.6	89.0	2.9497 ug/L	2.9497 ppb	05:00:36
2	V 292.402†	-1757.7	-68.8	-0.5332 ug/L	-0.5332 ppb	05:00:36
2	Zn 213.857†	759.1	-51.0	-0.5501 ug/L	-0.5501 ppb	05:00:56
2	SiO2†	650.7	79.4	6.0821 ug/L	6.0821 ppb	05:01:31
3	Sc Radial	4692.4	4692.4	98.8 %		04:59:44
3	Y RADIAL	4979.4	4979.4	98.80 %		04:59:44
3	Al 396.153Radial†	-61.7	20.0	18.320 ug/L	18.320 ppb	05:00:04
3	Ca 317.933Radial†	22.5	4.5	8.0252 ug/L	8.0252 ppb	05:00:04
3	Fe 238.204 Radial†	6.7	-0.5	-5.4677 ug/L	-5.4677 ppb	05:00:04
3	K 766.490 Radial†	2491.0	213.8	40.390 ug/L	40.390 ppb	04:59:44
3	Mg 279.077 IEC†	0.4	-1.8	-68.975 ug/L	-68.975 ppb	05:00:04
3	Na 589.592 Radial†	-961.0	-235.4	-71.614 ug/L	-71.614 ppb	04:59:44
3	Sr 421.552†	15.7	-3.0	-0.0217 ug/L	-0.0217 ppb	04:59:44
3	Sc 361.383	808024.6	808024.6	102.18 %		05:01:01
3	Y 371.029	721100.5	721100.5	102.00 %		05:01:01
3	Ag 328.068†	200.3	19.6	0.0967 ug/L	0.0967 ppb	05:01:01
3	As 188.979†	-32.6	-3.3	-1.4457 ug/L	-1.4457 ppb	05:01:21
3	B 249.677†	-267.5	-37.6	-0.9353 ug/L	-0.9353 ppb	05:01:21
3	Ba 233.527†	12.7	16.4	0.1903 ug/L	0.1903 ppb	05:01:21
3	Be 313.107†	-9226.2	302.8	0.1187 ug/L	0.1187 ppb	05:01:01
3	Cd 226.502†	-196.0	-9.2	-0.1256 ug/L	-0.1256 ppb	05:01:21
3	Co 228.616†	-52.5	13.0	0.3877 ug/L	0.3877 ppb	05:01:21
3	Cr 267.716†	72.1	9.3	0.1243 ug/L	0.1243 ppb	05:01:21
3	Cu 324.752†	7870.6	-20.8	-0.0768 ug/L	-0.0768 ppb	05:01:01
3	Mn 257.610†	463.5	23.2	0.0387 ug/L	0.0387 ppb	05:01:21
3	Mo 202.031†	15.5	3.2	0.2881 ug/L	0.2881 ppb	05:01:21
3	Ni 231.604†	81.3	-1.0	-0.0300 ug/L	-0.0300 ppb	05:01:21
3	P 214.914†	194.8	-8.1	-4.4030 ug/L	-4.4030 ppb	05:01:21
3	Pb 220.353†	-66.2	-7.3	-1.1495 ug/L	-1.1495 ppb	05:01:21
3	S 181.975 Axial†	47.0	5.0	6.1908 ug/L	6.1908 ppb	05:01:21
3	Sb 206.836†	35.4	1.7	0.6761 ug/L	0.6761 ppb	05:01:21
3	Se 196.026†	-21.7	-2.3	-1.3469 ug/L	-1.3469 ppb	05:01:21
3	Si 251.611†	605.0	41.0	1.4570 ug/L	1.4570 ppb	05:01:21
3	Sn 189.927†	9.7	-3.6	-0.8222 ug/L	-0.8222 ppb	05:01:21
3	Ti 334.940†	-1309.7	52.9	0.1116 ug/L	0.1116 ppb	05:01:01
3	Tl 190.801†	-24.6	11.7	5.2834 ug/L	5.2834 ppb	05:01:21
3	U 409.014†	-2426.0	-5.7	-0.1899 ug/L	-0.1899 ppb	05:01:01
3	V 292.402†	-1693.4	2.0	0.0183 ug/L	0.0183 ppb	05:01:01
3	Zn 213.857†	772.9	-40.9	-0.4381 ug/L	-0.4381 ppb	05:01:21
3	SiO2†	634.5	60.6	4.6306 ug/L	4.6306 ppb	05:01:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	803571.4	101.61	%	0.616				0.61%
Sc Radial	4719.7	99.4	%	0.50				0.51%
Y 371.029	717305.0	101.46	%	0.562				0.55%
Y RADIAL	5003.9	99.28	%	0.420				0.42%
Ag 328.068†	29.2	0.1450	ug/L	0.22285	0.1450	ppb	0.22285	153.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.9	19.134	ug/L	7.5682	19.134	ppb	7.5682	39.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-1.2075	ug/L	2.60961	-1.2075	ppb	2.60961	216.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.2	-1.1240	ug/L	0.18821	-1.1240	ppb	0.18821	16.75%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.5	0.1555	ug/L	0.06235	0.1555	ppb	0.06235	40.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	293.2	0.1151	ug/L	0.02085	0.1151	ppb	0.02085	18.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.7	8.3294	ug/L	0.78885	8.3294	ppb	0.78885	9.47%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -4.9     -0.0670 ug/L       0.05068     -0.0670 ppb        0.05068  75.58%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.6      0.1963 ug/L       0.27366      0.1963 ppb        0.27366 139.40%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.3      0.0160 ug/L       0.12137      0.0160 ppb        0.12137 759.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -58.2     -0.2151 ug/L       0.12147     -0.2151 ppb        0.12147  56.47%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.3      2.8041 ug/L       8.60758      2.8041 ppb        8.60758 306.97%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         236.0      44.577 ug/L        3.7568      44.577 ppb         3.7568   8.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -44.150 ug/L       21.5412     -44.150 ppb        21.5412  48.79%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                24.1      0.0399 ug/L       0.00127      0.0399 ppb        0.00127   3.19%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.5      0.1364 ug/L       0.31473      0.1364 ppb        0.31473 230.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -161.5     -49.157 ug/L       19.6622     -49.157 ppb        19.6622  40.00%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 4.2      0.1291 ug/L       0.24728      0.1291 ppb        0.24728 191.57%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.5     -5.6432 ug/L       2.96419     -5.6432 ppb        2.96419  52.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.7     -0.7464 ug/L       0.56114     -0.7464 ppb        0.56114  75.18%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.8      3.4308 ug/L       2.80317      3.4308 ppb        2.80317  81.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.5     -0.5763 ug/L       2.78229     -0.5763 ppb        2.78229 482.79%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -7.8     -4.6427 ug/L       3.59848     -4.6427 ppb        3.59848  77.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                52.5      1.8703 ug/L       0.40643      1.8703 ppb        0.40643  21.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.9     -0.2013 ug/L       1.43944     -0.2013 ppb        1.43944 714.91%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.6      0.0755 ug/L       0.09298      0.0755 ppb        0.09298 123.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                82.4      0.1673 ug/L       0.12054      0.1673 ppb        0.12054  72.04%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.3      3.2971 ug/L       3.50558      3.2971 ppb        3.50558 106.32%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 37.8      1.2523 ug/L       1.58531      1.2523 ppb        1.58531 126.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -43.9     -0.3384 ug/L       0.30938     -0.3384 ppb        0.30938  91.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -44.4     -0.4783 ug/L       0.06234     -0.4783 ppb        0.06234  13.03%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      66.8      5.1093 ug/L       0.84248      5.1093 ppb        0.84248  16.49%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 3/9/2010 14:20:18 **Plasma On Time: 3/8/2010 08:27:38**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\030910.sif
Batch ID:
Results Data Set: 030910
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/9/2010 14:20:19**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3337.3	3337.3	0.000	%	14:22:32
1	Y RADIAL	2736.9	2736.9	0.000	%	14:22:32
1	Al 396.153Radial†	-56.1	-56.3	[0.00]	ug/L	14:22:32
1	Ca 317.933Radial†	11.3	11.4	[0.00]	ug/L	14:22:32
1	Fe 238.204 Radial†	7.6	7.6	[0.00]	ug/L	14:22:32
1	K 766.490 Radial†	2170.6	2179.1	[0.00]	ug/L	14:22:12
1	Mg 279.077 IEC†	1.3	1.3	[0.00]	ug/L	14:22:32
1	Na 589.592 Radial†	-782.6	-785.7	[0.00]	ug/L	14:22:12
1	Sr 421.552†	27.6	27.7	[0.00]	ug/L	14:22:12
1	Sc 361.383	840233.2	840233.2	0.0000	%	14:23:28
1	Y 371.029	720681.8	720681.8	0.0000	%	14:23:28
1	Ag 328.068†	125.9	125.1	[0.00]	ug/L	14:23:33
1	As 188.979†	-14.5	-14.4	[0.00]	ug/L	14:23:53
1	B 249.677†	-82.9	-82.4	[0.00]	ug/L	14:23:33
1	Ba 233.527†	-3.3	-3.3	[0.00]	ug/L	14:23:53
1	Be 313.107†	-3606.6	-3583.0	[0.00]	ug/L	14:23:33
1	Cd 226.502†	-145.9	-144.9	[0.00]	ug/L	14:23:53
1	Co 228.616†	-46.5	-46.2	[0.00]	ug/L	14:23:53
1	Cr 267.716†	53.4	53.1	[0.00]	ug/L	14:23:33
1	Cu 324.752†	6055.5	6016.0	[0.00]	ug/L	14:23:33
1	Mn 257.610†	396.9	394.3	[0.00]	ug/L	14:23:33
1	Mo 202.031†	18.2	18.0	[0.00]	ug/L	14:23:53
1	Ni 231.604†	53.1	52.8	[0.00]	ug/L	14:23:53
1	P 214.914†	179.2	178.0	[0.00]	ug/L	14:23:53
1	Pb 220.353†	-42.5	-42.2	[0.00]	ug/L	14:23:53
1	S 181.975 Axial†	30.7	30.5	[0.00]	ug/L	14:23:53
1	Sb 206.836†	32.2	32.0	[0.00]	ug/L	14:23:53
1	Se 196.026†	-21.4	-21.3	[0.00]	ug/L	14:23:53
1	Si 251.611†	468.5	465.4	[0.00]	ug/L	14:23:53
1	Sn 189.927†	6.1	6.1	[0.00]	ug/L	14:23:53
1	Ti 334.940†	-1041.2	-1034.4	[0.00]	ug/L	14:23:33
1	Tl 190.801†	-30.8	-30.6	[0.00]	ug/L	14:23:53
1	U 409.014†	-2092.4	-2078.7	[0.00]	ug/L	14:23:28
1	V 292.402†	-1310.6	-1302.1	[0.00]	ug/L	14:23:33
1	Zn 213.857†	509.0	505.7	[0.00]	ug/L	14:23:53
1	SiO2†	478.2	475.1	[0.00]	ug/L	14:25:14
2	Sc Radial	3401.0	3401.0	0.000	%	14:22:57
2	Y RADIAL	2775.6	2775.6	0.000	%	14:22:57
2	Al 396.153Radial†	-53.7	-52.9	[0.00]	ug/L	14:22:57
2	Ca 317.933Radial†	8.2	8.1	[0.00]	ug/L	14:22:57
2	Fe 238.204 Radial†	8.8	8.6	[0.00]	ug/L	14:22:57
2	K 766.490 Radial†	2119.4	2087.9	[0.00]	ug/L	14:22:37
2	Mg 279.077 IEC†	0.4	0.4	[0.00]	ug/L	14:22:57
2	Na 589.592 Radial†	-761.4	-750.0	[0.00]	ug/L	14:22:37
2	Sr 421.552†	23.0	22.7	[0.00]	ug/L	14:22:37
2	Sc 361.383	829615.0	829615.0	0.0000	%	14:23:59
2	Y 371.029	710875.7	710875.7	0.0000	%	14:23:59

2	Ag 328.068†	159.0	160.0	[0.00]	ug/L	14:24:04
2	As 188.979†	-21.2	-21.4	[0.00]	ug/L	14:24:24
2	B 249.677†	-66.7	-67.1	[0.00]	ug/L	14:24:04
2	Ba 233.527†	-5.8	-5.8	[0.00]	ug/L	14:24:24
2	Be 313.107†	-3630.4	-3652.9	[0.00]	ug/L	14:24:04
2	Cd 226.502†	-136.1	-136.9	[0.00]	ug/L	14:24:24
2	Co 228.616†	-42.9	-43.2	[0.00]	ug/L	14:24:24
2	Cr 267.716†	91.5	92.1	[0.00]	ug/L	14:24:04
2	Cu 324.752†	6092.0	6129.7	[0.00]	ug/L	14:24:04
2	Mn 257.610†	396.2	398.6	[0.00]	ug/L	14:24:04
2	Mo 202.031†	10.4	10.4	[0.00]	ug/L	14:24:24
2	Ni 231.604†	50.8	51.1	[0.00]	ug/L	14:24:24
2	P 214.914†	176.1	177.2	[0.00]	ug/L	14:24:24
2	Pb 220.353†	-46.8	-47.0	[0.00]	ug/L	14:24:24
2	S 181.975 Axial†	36.2	36.4	[0.00]	ug/L	14:24:24
2	Sb 206.836†	26.9	27.1	[0.00]	ug/L	14:24:24
2	Se 196.026†	-19.1	-19.2	[0.00]	ug/L	14:24:24
2	Si 251.611†	436.2	438.9	[0.00]	ug/L	14:24:24
2	Sn 189.927†	6.2	6.3	[0.00]	ug/L	14:24:24
2	Ti 334.940†	-931.6	-937.4	[0.00]	ug/L	14:24:04
2	Tl 190.801†	-25.2	-25.4	[0.00]	ug/L	14:24:24
2	U 409.014†	-1971.2	-1983.4	[0.00]	ug/L	14:23:59
2	V 292.402†	-1218.9	-1226.4	[0.00]	ug/L	14:24:04
2	Zn 213.857†	500.0	503.1	[0.00]	ug/L	14:24:24
2	SiO2†	482.6	485.6	[0.00]	ug/L	14:25:34
3	Sc Radial	3312.9	3312.9	0.000	%	14:23:22
3	Y RADIAL	2717.2	2717.2	0.000	%	14:23:22
3	Al 396.153Radial†	-70.1	-70.9	[0.00]	ug/L	14:23:22
3	Ca 317.933Radial†	11.0	11.2	[0.00]	ug/L	14:23:22
3	Fe 238.204 Radial†	9.5	9.6	[0.00]	ug/L	14:23:22
3	K 766.490 Radial†	2053.1	2076.3	[0.00]	ug/L	14:23:02
3	Mg 279.077 IEC†	-0.3	-0.3	[0.00]	ug/L	14:23:22
3	Na 589.592 Radial†	-803.0	-812.1	[0.00]	ug/L	14:23:02
3	Sr 421.552†	56.0	56.7	[0.00]	ug/L	14:23:02
3	Sc 361.383	834386.6	834386.6	0.0000	%	14:24:29
3	Y 371.029	715436.0	715436.0	0.0000	%	14:24:29
3	Ag 328.068†	192.1	192.2	[0.00]	ug/L	14:24:34
3	As 188.979†	-12.1	-12.1	[0.00]	ug/L	14:24:54
3	B 249.677†	-121.1	-121.2	[0.00]	ug/L	14:24:34
3	Ba 233.527†	-12.4	-12.4	[0.00]	ug/L	14:24:54
3	Be 313.107†	-3600.2	-3601.7	[0.00]	ug/L	14:24:34
3	Cd 226.502†	-142.8	-142.8	[0.00]	ug/L	14:24:54
3	Co 228.616†	-41.3	-41.3	[0.00]	ug/L	14:24:54
3	Cr 267.716†	52.0	52.0	[0.00]	ug/L	14:24:34
3	Cu 324.752†	6063.1	6065.7	[0.00]	ug/L	14:24:34
3	Mn 257.610†	376.0	376.2	[0.00]	ug/L	14:24:34
3	Mo 202.031†	12.8	12.8	[0.00]	ug/L	14:24:54
3	Ni 231.604†	55.1	55.1	[0.00]	ug/L	14:24:54
3	P 214.914†	170.9	171.0	[0.00]	ug/L	14:24:54
3	Pb 220.353†	-42.5	-42.5	[0.00]	ug/L	14:24:54
3	S 181.975 Axial†	25.6	25.6	[0.00]	ug/L	14:24:54
3	Sb 206.836†	26.4	26.4	[0.00]	ug/L	14:24:54
3	Se 196.026†	-17.2	-17.2	[0.00]	ug/L	14:24:54
3	Si 251.611†	452.7	452.9	[0.00]	ug/L	14:24:54
3	Sn 189.927†	11.1	11.1	[0.00]	ug/L	14:24:54
3	Ti 334.940†	-908.6	-909.0	[0.00]	ug/L	14:24:34
3	Tl 190.801†	-37.3	-37.3	[0.00]	ug/L	14:24:54
3	U 409.014†	-1946.5	-1947.4	[0.00]	ug/L	14:24:29
3	V 292.402†	-1211.3	-1211.8	[0.00]	ug/L	14:24:34
3	Zn 213.857†	498.4	498.6	[0.00]	ug/L	14:24:54
3	SiO2†	474.6	474.8	[0.00]	ug/L	14:25:54

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	834744.9	5318.13	0.64%	0.0000	%
Sc Radial	3350.4	45.52	1.36%	0.000	%
Y 371.029	715664.5	4907.05	0.69%	0.0000	%
Y RADIAL	2743.3	29.69	1.08%	0.000	%
Ag 328.068†	159.1	33.55	21.09%	[0.00]	ug/L

Al 396.153Radial†	-60.0	9.57	15.94%	[0.00]	ug/L
As 188.979†	-16.0	4.82	30.19%	[0.00]	ug/L
B 249.677†	-90.2	27.88	30.91%	[0.00]	ug/L
Ba 233.527†	-7.2	4.73	65.86%	[0.00]	ug/L
Be 313.107†	-3612.5	36.17	1.00%	[0.00]	ug/L
Ca 317.933Radial†	10.2	1.84	18.05%	[0.00]	ug/L
Cd 226.502†	-141.6	4.13	2.92%	[0.00]	ug/L
Co 228.616†	-43.6	2.50	5.75%	[0.00]	ug/L
Cr 267.716†	65.7	22.80	34.68%	[0.00]	ug/L
Cu 324.752†	6070.4	57.02	0.94%	[0.00]	ug/L
Fe 238.204 Radial†	8.6	0.99	11.48%	[0.00]	ug/L
K 766.490 Radial†	2114.4	56.29	2.66%	[0.00]	ug/L
Mg 279.077 IEC†	0.4	0.80	178.90%	[0.00]	ug/L
Mn 257.610†	389.7	11.91	3.06%	[0.00]	ug/L
Mo 202.031†	13.8	3.88	28.18%	[0.00]	ug/L
Na 589.592 Radial†	-782.6	31.16	3.98%	[0.00]	ug/L
Ni 231.604†	53.0	2.01	3.79%	[0.00]	ug/L
P 214.914†	175.4	3.85	2.19%	[0.00]	ug/L
Pb 220.353†	-43.9	2.71	6.16%	[0.00]	ug/L
S 181.975 Axial†	30.9	5.41	17.53%	[0.00]	ug/L
Sb 206.836†	28.5	3.07	10.77%	[0.00]	ug/L
Se 196.026†	-19.2	2.04	10.63%	[0.00]	ug/L
Si 251.611†	452.4	13.30	2.94%	[0.00]	ug/L
Sn 189.927†	7.8	2.87	36.73%	[0.00]	ug/L
Sr 421.552†	35.7	18.34	51.40%	[0.00]	ug/L
Ti 334.940†	-960.3	65.75	6.85%	[0.00]	ug/L
Tl 190.801†	-31.1	5.96	19.19%	[0.00]	ug/L
U 409.014†	-2003.2	67.88	3.39%	[0.00]	ug/L
V 292.402†	-1246.8	48.46	3.89%	[0.00]	ug/L
Zn 213.857†	502.5	3.57	0.71%	[0.00]	ug/L
SiO2†	478.5	6.14	1.28%	[0.00]	ug/L

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

Autosampler Location: 2
Date Collected: 3/9/2010 14:28:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3448.9	3448.9	103	%	14:30:17
1	Y RADIAL	2822.3	2822.3	102.9	%	14:30:17
1	K 766.490 Radial†	4334.9	2096.7	[1000]	ug/L	14:29:57
1	Sr 421.552†	10280.5	9951.3	[100]	ug/L	14:30:17
1	Sc 361.383	838300.2	838300.2	100.43	%	14:31:14
1	Y 371.029	716959.5	716959.5	100.18	%	14:31:14
1	Ag 328.068†	20515.0	20268.9	[100]	ug/L	14:31:14
1	As 188.979†	167.2	182.4	[100]	ug/L	14:31:34
1	B 249.677†	3318.8	3394.9	[100]	ug/L	14:31:14
1	Ba 233.527†	10949.4	10910.2	[100]	ug/L	14:31:14
1	Be 313.107†	231754.3	234384.0	[100]	ug/L	14:31:14
1	Cd 226.502†	6767.0	6879.9	[100]	ug/L	14:31:34
1	Co 228.616†	3949.2	3976.0	[100]	ug/L	14:31:34
1	Cr 267.716†	7910.7	7811.4	[100]	ug/L	14:31:14
1	Cu 324.752†	37983.1	31751.6	[100]	ug/L	14:31:14
1	Mn 257.610†	79417.0	78690.5	[100]	ug/L	14:31:14
1	Mo 202.031†	1197.0	1178.1	[100]	ug/L	14:31:34
1	Ni 231.604†	3347.5	3280.3	[100]	ug/L	14:31:34
1	P 214.914†	829.1	650.2	[500]	ug/L	14:31:34
1	Pb 220.353†	613.0	654.3	[100]	ug/L	14:31:34
1	S 181.975 Axial†	144.6	113.1	[200]	ug/L	14:31:34
1	Sb 206.836†	278.2	248.5	[100]	ug/L	14:31:34
1	Se 196.026†	110.4	129.2	[100]	ug/L	14:31:34
1	Si 251.611†	14083.8	13571.7	[500]	ug/L	14:31:14
1	Sn 189.927†	447.5	437.8	[100]	ug/L	14:31:34
1	Ti 334.940†	58889.4	59599.9	[100]	ug/L	14:31:14
1	Tl 190.801†	246.0	276.1	[100]	ug/L	14:31:34
1	U 409.014†	1453.4	3450.4	[100]	ug/L	14:31:14
1	V 292.402†	11753.6	12950.5	[100]	ug/L	14:31:14
1	Zn 213.857†	9095.6	8554.6	[100]	ug/L	14:31:14
1	SiO2†	14135.4	13597.0	[1069.5]	ug/L	14:32:30
2	Sc Radial	3447.4	3447.4	103	%	14:30:42
2	Y RADIAL	2818.5	2818.5	102.7	%	14:30:42
2	K 766.490 Radial†	4373.3	2135.8	[1000]	ug/L	14:30:22
2	Sr 421.552†	10349.9	10023.0	[100]	ug/L	14:30:42
2	Sc 361.383	834166.4	834166.4	99.931	%	14:31:40
2	Y 371.029	714364.4	714364.4	99.818	%	14:31:40
2	Ag 328.068†	20510.6	20365.8	[100]	ug/L	14:31:40
2	As 188.979†	166.4	182.5	[100]	ug/L	14:32:00
2	B 249.677†	3245.0	3337.5	[100]	ug/L	14:31:40
2	Ba 233.527†	10994.3	11009.1	[100]	ug/L	14:31:40
2	Be 313.107†	232290.3	236063.9	[100]	ug/L	14:31:40
2	Cd 226.502†	6781.8	6928.1	[100]	ug/L	14:32:00
2	Co 228.616†	3940.0	3986.3	[100]	ug/L	14:32:00
2	Cr 267.716†	7924.5	7864.3	[100]	ug/L	14:31:40
2	Cu 324.752†	37878.5	31834.3	[100]	ug/L	14:31:40
2	Mn 257.610†	79483.6	79149.1	[100]	ug/L	14:31:40
2	Mo 202.031†	1199.2	1186.3	[100]	ug/L	14:32:00
2	Ni 231.604†	3354.7	3304.0	[100]	ug/L	14:32:00
2	P 214.914†	830.7	655.9	[500]	ug/L	14:32:00
2	Pb 220.353†	619.5	663.9	[100]	ug/L	14:32:00
2	S 181.975 Axial†	145.8	115.0	[200]	ug/L	14:32:00
2	Sb 206.836†	266.9	238.6	[100]	ug/L	14:32:00
2	Se 196.026†	107.0	126.3	[100]	ug/L	14:32:00
2	Si 251.611†	14038.5	13595.8	[500]	ug/L	14:31:40
2	Sn 189.927†	455.7	448.2	[100]	ug/L	14:32:00
2	Ti 334.940†	58767.4	59768.4	[100]	ug/L	14:31:40
2	Tl 190.801†	238.4	269.7	[100]	ug/L	14:32:00
2	U 409.014†	1570.0	3574.3	[100]	ug/L	14:31:40

2	V 292.402†	11687.0	12941.8	[100]	ug/L	14:31:40
2	Zn 213.857†	9111.6	8615.4	[100]	ug/L	14:31:40
2	SiO2†	14082.2	13613.5	[1069.5]	ug/L	14:32:35
3	Sc Radial	3397.5	3397.5	101	%	14:31:07
3	Y RADIAL	2774.8	2774.8	101.2	%	14:31:07
3	K 766.490 Radial†	4324.0	2149.7	[1000]	ug/L	14:30:47
3	Sr 421.552†	10206.4	10029.3	[100]	ug/L	14:31:07
3	Sc 361.383	832531.5	832531.5	99.735	%	14:32:05
3	Y 371.029	712648.1	712648.1	99.579	%	14:32:05
3	Ag 328.068†	20394.2	20289.3	[100]	ug/L	14:32:05
3	As 188.979†	169.3	185.7	[100]	ug/L	14:32:25
3	B 249.677†	3216.6	3315.4	[100]	ug/L	14:32:05
3	Ba 233.527†	11003.4	11039.8	[100]	ug/L	14:32:05
3	Be 313.107†	232295.6	236525.8	[100]	ug/L	14:32:05
3	Cd 226.502†	6813.0	6972.7	[100]	ug/L	14:32:25
3	Co 228.616†	3970.5	4024.6	[100]	ug/L	14:32:25
3	Cr 267.716†	7955.2	7910.6	[100]	ug/L	14:32:05
3	Cu 324.752†	37790.0	31820.0	[100]	ug/L	14:32:05
3	Mn 257.610†	79487.1	79308.7	[100]	ug/L	14:32:05
3	Mo 202.031†	1187.6	1177.0	[100]	ug/L	14:32:25
3	Ni 231.604†	3355.9	3311.8	[100]	ug/L	14:32:25
3	P 214.914†	842.7	669.6	[500]	ug/L	14:32:25
3	Pb 220.353†	643.3	688.9	[100]	ug/L	14:32:25
3	S 181.975 Axial†	138.6	108.2	[200]	ug/L	14:32:25
3	Sb 206.836†	265.5	237.7	[100]	ug/L	14:32:25
3	Se 196.026†	109.6	129.2	[100]	ug/L	14:32:25
3	Si 251.611†	14083.5	13668.5	[500]	ug/L	14:32:05
3	Sn 189.927†	454.8	448.2	[100]	ug/L	14:32:25
3	Ti 334.940†	58886.2	60003.1	[100]	ug/L	14:32:05
3	Tl 190.801†	238.6	270.3	[100]	ug/L	14:32:25
3	U 409.014†	1543.6	3550.8	[100]	ug/L	14:32:05
3	V 292.402†	11702.6	12980.5	[100]	ug/L	14:32:05
3	Zn 213.857†	9103.0	8624.7	[100]	ug/L	14:32:05
3	SiO2†	14209.1	13768.4	[1069.5]	ug/L	14:32:41

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	834999.4	2973.19	0.36%	100.03	%
Sc Radial	3431.3	29.26	0.85%	102	%
Y 371.029	714657.3	2170.58	0.30%	99.859	%
Y RADIAL	2805.2	26.41	0.94%	102.3	%
Ag 328.068†	20308.0	51.08	0.25%	[100]	ug/L
As 188.979†	183.5	1.87	1.02%	[100]	ug/L
B 249.677†	3349.2	41.04	1.23%	[100]	ug/L
Ba 233.527†	10986.4	67.76	0.62%	[100]	ug/L
Be 313.107†	235657.9	1127.14	0.48%	[100]	ug/L
Cd 226.502†	6926.9	46.40	0.67%	[100]	ug/L
Co 228.616†	3995.6	25.63	0.64%	[100]	ug/L
Cr 267.716†	7862.1	49.66	0.63%	[100]	ug/L
Cu 324.752†	31802.0	44.22	0.14%	[100]	ug/L
K 766.490 Radial†	2127.4	27.49	1.29%	[1000]	ug/L
Mn 257.610†	79049.4	320.95	0.41%	[100]	ug/L
Mo 202.031†	1180.5	5.09	0.43%	[100]	ug/L
Ni 231.604†	3298.7	16.43	0.50%	[100]	ug/L
P 214.914†	658.5	9.94	1.51%	[500]	ug/L
Pb 220.353†	669.0	17.88	2.67%	[100]	ug/L
S 181.975 Axial†	112.1	3.53	3.15%	[200]	ug/L
Sb 206.836†	241.6	6.03	2.49%	[100]	ug/L
Se 196.026†	128.2	1.68	1.31%	[100]	ug/L
Si 251.611†	13612.0	50.42	0.37%	[500]	ug/L
Sn 189.927†	444.7	6.02	1.35%	[100]	ug/L
Sr 421.552†	10001.2	43.33	0.43%	[100]	ug/L
Ti 334.940†	59790.5	202.46	0.34%	[100]	ug/L
Tl 190.801†	272.0	3.53	1.30%	[100]	ug/L
U 409.014†	3525.2	65.80	1.87%	[100]	ug/L
V 292.402†	12957.6	20.29	0.16%	[100]	ug/L
Zn 213.857†	8598.2	38.10	0.44%	[100]	ug/L
SiO2†	13659.7	94.58	0.69%	[1069.5]	ug/L

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

Autosampler Location: 3
Date Collected: 3/9/2010 14:34:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3338.0	3338.0	99.6	%	14:37:04
1	Y RADIAL	2720.9	2720.9	99.18	%	14:37:04
1	Al 396.153Radial†	2147.7	2215.7	[5000]	ug/L	14:36:44
1	Ca 317.933Radial†	1274.3	1268.8	[5000]	ug/L	14:37:04
1	K 766.490 Radial†	12758.2	10691.0	[5000]	ug/L	14:36:44
1	Mg 279.077 IEC†	54.8	54.5	[5000]	ug/L	14:37:04
1	Sr 421.552†	47615.8	47756.7	[500]	ug/L	14:36:44
1	Sc 361.383	845007.7	845007.7	101.23	%	14:38:01
1	Y 371.029	713842.2	713842.2	99.745	%	14:38:01
1	Ag 328.068†	99484.5	98117.2	[500]	ug/L	14:38:06
1	As 188.979†	881.6	886.9	[500]	ug/L	14:38:26
1	B 249.677†	17470.3	17348.3	[500]	ug/L	14:38:06
1	Ba 233.527†	53814.0	53167.5	[500]	ug/L	14:38:06
1	Be 313.107†	1170811.1	1160203.9	[500]	ug/L	14:38:01
1	Cd 226.502†	34689.7	34409.9	[500]	ug/L	14:38:06
1	Co 228.616†	19706.3	19510.5	[500]	ug/L	14:38:06
1	Cr 267.716†	38608.3	38073.7	[500]	ug/L	14:38:06
1	Cu 324.752†	161082.9	153056.1	[500]	ug/L	14:38:06
1	Mn 257.610†	386147.0	381067.5	[500]	ug/L	14:38:01
1	Mo 202.031†	5783.6	5699.6	[500]	ug/L	14:38:26
1	Ni 231.604†	16291.7	16040.8	[500]	ug/L	14:38:06
1	P 214.914†	3444.6	3227.4	[2500]	ug/L	14:38:26
1	Pb 220.353†	3191.0	3196.1	[500]	ug/L	14:38:26
1	S 181.975 Axial†	587.9	549.9	[1000]	ug/L	14:38:26
1	Sb 206.836†	1229.4	1186.0	[500]	ug/L	14:38:26
1	Se 196.026†	597.9	609.9	[500]	ug/L	14:38:26
1	Si 251.611†	68084.2	66804.9	[2500]	ug/L	14:38:06
1	Sn 189.927†	2183.6	2149.3	[500]	ug/L	14:38:26
1	Ti 334.940†	288616.9	286071.9	[500]	ug/L	14:38:06
1	Tl 190.801†	1252.4	1268.3	[500]	ug/L	14:38:26
1	U 409.014†	15548.2	17362.5	[500]	ug/L	14:38:06
1	V 292.402†	63011.6	63493.0	[500]	ug/L	14:38:06
1	Zn 213.857†	41994.9	40982.4	[500]	ug/L	14:38:06
1	SiO2†	68440.6	67130.9	[5347.5]	ug/L	14:39:34
2	Sc Radial	3317.2	3317.2	99.0	%	14:37:29
2	Y RADIAL	2683.1	2683.1	97.81	%	14:37:29
2	Al 396.153Radial†	2188.8	2270.7	[5000]	ug/L	14:37:09
2	Ca 317.933Radial†	1296.5	1299.3	[5000]	ug/L	14:37:29
2	K 766.490 Radial†	12817.9	10831.7	[5000]	ug/L	14:37:09
2	Mg 279.077 IEC†	55.7	55.8	[5000]	ug/L	14:37:29
2	Sr 421.552†	48691.3	49142.6	[500]	ug/L	14:37:09
2	Sc 361.383	837494.8	837494.8	100.33	%	14:38:32
2	Y 371.029	708576.4	708576.4	99.010	%	14:38:32
2	Ag 328.068†	99691.9	99205.5	[500]	ug/L	14:38:37
2	As 188.979†	883.9	897.0	[500]	ug/L	14:38:57
2	B 249.677†	17623.6	17655.9	[500]	ug/L	14:38:37
2	Ba 233.527†	53569.7	53400.9	[500]	ug/L	14:38:37
2	Be 313.107†	1161872.2	1161669.8	[500]	ug/L	14:38:32
2	Cd 226.502†	34524.6	34552.8	[500]	ug/L	14:38:37
2	Co 228.616†	19638.2	19617.3	[500]	ug/L	14:38:37
2	Cr 267.716†	38484.6	38292.5	[500]	ug/L	14:38:37
2	Cu 324.752†	161766.0	155164.4	[500]	ug/L	14:38:37
2	Mn 257.610†	382727.2	381080.9	[500]	ug/L	14:38:32
2	Mo 202.031†	5812.2	5779.4	[500]	ug/L	14:38:57
2	Ni 231.604†	16153.9	16047.8	[500]	ug/L	14:38:37
2	P 214.914†	3461.1	3274.3	[2500]	ug/L	14:38:57
2	Pb 220.353†	3202.2	3235.6	[500]	ug/L	14:38:57
2	S 181.975 Axial†	595.4	562.6	[1000]	ug/L	14:38:57
2	Sb 206.836†	1226.2	1193.7	[500]	ug/L	14:38:57

2	Se 196.026†	607.4	624.6	[500]	ug/L	14:38:57
2	Si 251.611†	68011.4	67335.7	[2500]	ug/L	14:38:37
2	Sn 189.927†	2197.8	2182.8	[500]	ug/L	14:38:57
2	Ti 334.940†	288564.3	288577.1	[500]	ug/L	14:38:37
2	Tl 190.801†	1279.4	1306.3	[500]	ug/L	14:38:57
2	U 409.014†	15649.1	17600.9	[500]	ug/L	14:38:37
2	V 292.402†	62933.0	63973.1	[500]	ug/L	14:38:37
2	Zn 213.857†	41883.8	41243.8	[500]	ug/L	14:38:37
2	SiO2†	69235.8	68530.0	[5347.5]	ug/L	14:39:39
3	Sc Radial	3330.0	3330.0	99.4	%	14:37:54
3	Y RADIAL	2696.5	2696.5	98.30	%	14:37:54
3	Al 396.153Radial†	2169.6	2242.9	[5000]	ug/L	14:37:34
3	Ca 317.933Radial†	1293.5	1291.2	[5000]	ug/L	14:37:54
3	K 766.490 Radial†	12874.7	10839.2	[5000]	ug/L	14:37:34
3	Mg 279.077 IEC†	56.6	56.5	[5000]	ug/L	14:37:54
3	Sr 421.552†	48496.2	48757.8	[500]	ug/L	14:37:34
3	Sc 361.383	847611.1	847611.1	101.54	%	14:39:03
3	Y 371.029	716801.6	716801.6	100.16	%	14:39:03
3	Ag 328.068†	100910.7	99219.9	[500]	ug/L	14:39:08
3	As 188.979†	886.6	889.1	[500]	ug/L	14:39:28
3	B 249.677†	17928.7	17746.8	[500]	ug/L	14:39:08
3	Ba 233.527†	54419.0	53600.2	[500]	ug/L	14:39:08
3	Be 313.107†	1177853.3	1163586.9	[500]	ug/L	14:39:03
3	Cd 226.502†	35027.6	34637.5	[500]	ug/L	14:39:08
3	Co 228.616†	19954.5	19695.2	[500]	ug/L	14:39:08
3	Cr 267.716†	39111.8	38452.4	[500]	ug/L	14:39:08
3	Cu 324.752†	163815.1	155258.1	[500]	ug/L	14:39:08
3	Mn 257.610†	387816.6	381540.1	[500]	ug/L	14:39:03
3	Mo 202.031†	5832.1	5729.8	[500]	ug/L	14:39:28
3	Ni 231.604†	16403.5	16101.5	[500]	ug/L	14:39:08
3	P 214.914†	3479.7	3251.5	[2500]	ug/L	14:39:28
3	Pb 220.353†	3224.0	3219.0	[500]	ug/L	14:39:28
3	S 181.975 Axial†	593.8	554.0	[1000]	ug/L	14:39:28
3	Sb 206.836†	1236.7	1189.4	[500]	ug/L	14:39:28
3	Se 196.026†	591.6	601.9	[500]	ug/L	14:39:28
3	Si 251.611†	69108.1	67606.7	[2500]	ug/L	14:39:08
3	Sn 189.927†	2215.2	2173.8	[500]	ug/L	14:39:28
3	Ti 334.940†	292365.7	288888.0	[500]	ug/L	14:39:08
3	Tl 190.801†	1273.9	1285.6	[500]	ug/L	14:39:28
3	U 409.014†	15827.1	17590.0	[500]	ug/L	14:39:08
3	V 292.402†	63769.2	64047.9	[500]	ug/L	14:39:08
3	Zn 213.857†	42622.3	41472.8	[500]	ug/L	14:39:08
3	SiO2†	68763.2	67241.0	[5347.5]	ug/L	14:39:44

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	843371.2	5252.94	0.62%	101.03	%
Sc Radial	3328.4	10.49	0.32%	99.3	%
Y 371.029	713073.4	4166.13	0.58%	99.638	%
Y RADIAL	2700.1	19.17	0.71%	98.43	%
Ag 328.068†	98847.5	632.54	0.64%	[500]	ug/L
Al 396.153Radial†	2243.1	27.49	1.23%	[5000]	ug/L
As 188.979†	891.0	5.30	0.59%	[500]	ug/L
B 249.677†	17583.7	208.83	1.19%	[500]	ug/L
Ba 233.527†	53389.5	216.53	0.41%	[500]	ug/L
Be 313.107†	1161820.2	1696.50	0.15%	[500]	ug/L
Ca 317.933Radial†	1286.4	15.82	1.23%	[5000]	ug/L
Cd 226.502†	34533.4	114.99	0.33%	[500]	ug/L
Co 228.616†	19607.6	92.72	0.47%	[500]	ug/L
Cr 267.716†	38272.9	190.11	0.50%	[500]	ug/L
Cu 324.752†	154492.8	1245.14	0.81%	[500]	ug/L
K 766.490 Radial†	10787.3	83.46	0.77%	[5000]	ug/L
Mg 279.077 IEC†	55.6	0.99	1.79%	[5000]	ug/L
Mn 257.610†	381229.5	269.09	0.07%	[500]	ug/L
Mo 202.031†	5736.3	40.30	0.70%	[500]	ug/L
Ni 231.604†	16063.4	33.20	0.21%	[500]	ug/L
P 214.914†	3251.1	23.46	0.72%	[2500]	ug/L
Pb 220.353†	3216.9	19.81	0.62%	[500]	ug/L
S 181.975 Axial†	555.5	6.49	1.17%	[1000]	ug/L

Sb 206.836†	1189.7	3.83	0.32%	[500]	ug/L
Se 196.026†	612.1	11.55	1.89%	[500]	ug/L
Si 251.611†	67249.1	407.85	0.61%	[2500]	ug/L
Sn 189.927†	2168.6	17.33	0.80%	[500]	ug/L
Sr 421.552†	48552.4	715.45	1.47%	[500]	ug/L
Ti 334.940†	287845.7	1544.00	0.54%	[500]	ug/L
Tl 190.801†	1286.7	19.02	1.48%	[500]	ug/L
U 409.014†	17517.8	134.59	0.77%	[500]	ug/L
V 292.402†	63838.0	301.09	0.47%	[500]	ug/L
Zn 213.857†	41233.0	245.39	0.60%	[500]	ug/L
SiO2†	67633.9	777.94	1.15%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/9/2010 14:41:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3298.5	3298.5	98.5	%	14:44:08
1	Y RADIAL	2689.1	2689.1	98.03	%	14:44:08
1	Al 396.153Radial†	4477.7	4608.2	[10000]	ug/L	14:43:47
1	Ca 317.933Radial†	2533.3	2563.0	[10000]	ug/L	14:44:08
1	Fe 238.204 Radial†	367.8	364.9	[10000]	ug/L	14:44:08
1	K 766.490 Radial†	23678.0	21936.2	[10000]	ug/L	14:43:47
1	Mg 279.077 IEC†	107.3	108.6	[10000]	ug/L	14:44:08
1	Na 589.592 Radial†	27843.4	29064.1	[10000]	ug/L	14:43:47
1	Sr 421.552†	100196.8	101737.8	[1000]	ug/L	14:43:47
1	Sc 361.383	837990.3	837990.3	100.39	%	14:45:07
1	Y 371.029	706847.7	706847.7	98.768	%	14:45:07
1	Ag 328.068†	198780.6	197851.7	[1000]	ug/L	14:45:07
1	As 188.979†	1796.5	1805.5	[1000]	ug/L	14:45:27
1	B 249.677†	35795.5	35747.1	[1000]	ug/L	14:45:07
1	Ba 233.527†	107592.5	107183.0	[1000]	ug/L	14:45:07
1	Be 313.107†	2317440.4	2312078.1	[1000]	ug/L	14:45:07
1	Cd 226.502†	69404.1	69276.9	[1000]	ug/L	14:45:07
1	Co 228.616†	38416.5	38311.3	[1000]	ug/L	14:45:27
1	Cr 267.716†	77007.9	76643.9	[1000]	ug/L	14:45:07
1	Cu 324.752†	318097.8	310795.5	[1000]	ug/L	14:45:07
1	Mn 257.610†	766441.8	763083.9	[1000]	ug/L	14:45:07
1	Mo 202.031†	11660.5	11601.6	[1000]	ug/L	14:45:27
1	Ni 231.604†	31747.5	31571.6	[1000]	ug/L	14:45:27
1	P 214.914†	6812.2	6610.4	[5000]	ug/L	14:45:27
1	Pb 220.353†	6428.4	6447.4	[1000]	ug/L	14:45:27
1	S 181.975 Axial†	1159.7	1124.3	[2000]	ug/L	14:45:27
1	Sb 206.836†	2452.1	2414.1	[1000]	ug/L	14:45:27
1	Se 196.026†	1216.1	1230.6	[1000]	ug/L	14:45:27
1	Si 251.611†	135814.3	134836.0	[5000]	ug/L	14:45:07
1	Sn 189.927†	4433.1	4408.1	[1000]	ug/L	14:45:27
1	Ti 334.940†	592515.3	591180.9	[1000]	ug/L	14:45:07
1	Tl 190.801†	2551.9	2573.1	[1000]	ug/L	14:45:27
1	U 409.014†	32203.4	34081.8	[1000]	ug/L	14:45:07
1	V 292.402†	127340.9	128094.5	[1000]	ug/L	14:45:07
1	Zn 213.857†	83236.9	82412.1	[1000]	ug/L	14:45:07
1	SiO2†	136909.5	135900.8	[10695]	ug/L	14:46:27
2	Sc Radial	3335.8	3335.8	99.6	%	14:44:33
2	Y RADIAL	2714.1	2714.1	98.94	%	14:44:33
2	Al 396.153Radial†	4480.7	4560.3	[10000]	ug/L	14:44:13
2	Ca 317.933Radial†	2565.7	2566.7	[10000]	ug/L	14:44:33
2	Fe 238.204 Radial†	375.2	368.2	[10000]	ug/L	14:44:33
2	K 766.490 Radial†	23670.1	21659.0	[10000]	ug/L	14:44:13
2	Mg 279.077 IEC†	106.3	106.3	[10000]	ug/L	14:44:33
2	Na 589.592 Radial†	27869.7	28774.0	[10000]	ug/L	14:44:13
2	Sr 421.552†	99696.7	100096.3	[1000]	ug/L	14:44:13
2	Sc 361.383	839401.6	839401.6	100.56	%	14:45:34
2	Y 371.029	709109.7	709109.7	99.084	%	14:45:34
2	Ag 328.068†	199023.2	197760.0	[1000]	ug/L	14:45:34
2	As 188.979†	1786.9	1793.0	[1000]	ug/L	14:45:54
2	B 249.677†	35891.0	35782.1	[1000]	ug/L	14:45:34
2	Ba 233.527†	107626.6	107036.7	[1000]	ug/L	14:45:34
2	Be 313.107†	2326074.6	2316783.1	[1000]	ug/L	14:45:34
2	Cd 226.502†	69402.2	69158.8	[1000]	ug/L	14:45:34
2	Co 228.616†	38543.8	38373.5	[1000]	ug/L	14:45:54
2	Cr 267.716†	77127.0	76633.4	[1000]	ug/L	14:45:34
2	Cu 324.752†	319060.2	311219.7	[1000]	ug/L	14:45:34
2	Mn 257.610†	767374.3	762727.6	[1000]	ug/L	14:45:34
2	Mo 202.031†	11689.2	11610.6	[1000]	ug/L	14:45:54
2	Ni 231.604†	31831.4	31601.8	[1000]	ug/L	14:45:54

2	P 214.914†	6812.1	6598.9	[5000]	ug/L	14:45:54
2	Pb 220.353†	6460.8	6468.9	[1000]	ug/L	14:45:54
2	S 181.975 Axial†	1156.9	1119.7	[2000]	ug/L	14:45:54
2	Sb 206.836†	2470.2	2428.0	[1000]	ug/L	14:45:54
2	Se 196.026†	1216.3	1228.7	[1000]	ug/L	14:45:54
2	Si 251.611†	136012.1	134805.1	[5000]	ug/L	14:45:34
2	Sn 189.927†	4465.0	4432.4	[1000]	ug/L	14:45:54
2	Ti 334.940†	593948.8	591614.1	[1000]	ug/L	14:45:34
2	Tl 190.801†	2566.2	2583.0	[1000]	ug/L	14:45:54
2	U 409.014†	32161.4	33986.2	[1000]	ug/L	14:45:34
2	V 292.402†	127588.9	128127.8	[1000]	ug/L	14:45:34
2	Zn 213.857†	83210.7	82246.6	[1000]	ug/L	14:45:34
2	SiO2†	137060.9	135822.1	[10695]	ug/L	14:46:32
3	Sc Radial	3301.8	3301.8	98.5	%	14:44:58
3	Y RADIAL	2675.8	2675.8	97.54	%	14:44:58
3	Al 396.153Radial†	4529.2	4655.9	[10000]	ug/L	14:44:38
3	Ca 317.933Radial†	2546.6	2573.9	[10000]	ug/L	14:44:58
3	Fe 238.204 Radial†	368.2	365.0	[10000]	ug/L	14:44:58
3	K 766.490 Radial†	23922.0	22159.6	[10000]	ug/L	14:44:38
3	Mg 279.077 IEC†	107.1	108.2	[10000]	ug/L	14:44:58
3	Na 589.592 Radial†	28581.2	29784.5	[10000]	ug/L	14:44:38
3	Sr 421.552†	102070.5	103537.1	[1000]	ug/L	14:44:38
3	Sc 361.383	837014.3	837014.3	100.27	%	14:46:02
3	Y 371.029	706995.2	706995.2	98.789	%	14:46:02
3	Ag 328.068†	198889.2	198190.8	[1000]	ug/L	14:46:02
3	As 188.979†	1798.4	1809.5	[1000]	ug/L	14:46:22
3	B 249.677†	35942.1	35934.8	[1000]	ug/L	14:46:02
3	Ba 233.527†	107420.0	107136.0	[1000]	ug/L	14:46:02
3	Be 313.107†	2319177.5	2316502.0	[1000]	ug/L	14:46:02
3	Cd 226.502†	69226.8	69180.7	[1000]	ug/L	14:46:02
3	Co 228.616†	38519.4	38458.5	[1000]	ug/L	14:46:22
3	Cr 267.716†	77024.0	76749.4	[1000]	ug/L	14:46:02
3	Cu 324.752†	318215.7	311282.4	[1000]	ug/L	14:46:02
3	Mn 257.610†	765669.9	763204.2	[1000]	ug/L	14:46:02
3	Mo 202.031†	11668.6	11623.2	[1000]	ug/L	14:46:22
3	Ni 231.604†	31808.8	31669.5	[1000]	ug/L	14:46:22
3	P 214.914†	6794.5	6600.7	[5000]	ug/L	14:46:22
3	Pb 220.353†	6442.7	6469.1	[1000]	ug/L	14:46:22
3	S 181.975 Axial†	1161.7	1127.7	[2000]	ug/L	14:46:22
3	Sb 206.836†	2458.5	2423.4	[1000]	ug/L	14:46:22
3	Se 196.026†	1214.0	1229.9	[1000]	ug/L	14:46:22
3	Si 251.611†	135954.4	135133.4	[5000]	ug/L	14:46:02
3	Sn 189.927†	4427.9	4408.1	[1000]	ug/L	14:46:22
3	Ti 334.940†	592178.4	591533.1	[1000]	ug/L	14:46:02
3	Tl 190.801†	2553.1	2577.2	[1000]	ug/L	14:46:22
3	U 409.014†	32123.1	34039.1	[1000]	ug/L	14:46:02
3	V 292.402†	127460.8	128362.0	[1000]	ug/L	14:46:02
3	Zn 213.857†	83175.6	82447.6	[1000]	ug/L	14:46:02
3	SiO2†	138222.9	137369.6	[10695]	ug/L	14:46:37

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	838135.4	1200.21	0.14%	100.41	%
Sc Radial	3312.1	20.67	0.62%	98.9	%
Y 371.029	707650.8	1265.54	0.18%	98.880	%
Y RADIAL	2693.0	19.45	0.72%	98.17	%
Ag 328.068†	197934.2	226.93	0.11%	[1000]	ug/L
Al 396.153Radial†	4608.1	47.82	1.04%	[10000]	ug/L
As 188.979†	1802.7	8.64	0.48%	[1000]	ug/L
B 249.677†	35821.3	99.83	0.28%	[1000]	ug/L
Ba 233.527†	107118.6	74.67	0.07%	[1000]	ug/L
Be 313.107†	2315121.1	2639.06	0.11%	[1000]	ug/L
Ca 317.933Radial†	2567.9	5.54	0.22%	[10000]	ug/L
Cd 226.502†	69205.5	62.86	0.09%	[1000]	ug/L
Co 228.616†	38381.1	73.90	0.19%	[1000]	ug/L
Cr 267.716†	76675.6	64.18	0.08%	[1000]	ug/L
Cu 324.752†	311099.2	264.92	0.09%	[1000]	ug/L
Fe 238.204 Radial†	366.0	1.85	0.51%	[10000]	ug/L
K 766.490 Radial†	21918.3	250.78	1.14%	[10000]	ug/L

Mg 279.077 IEC†	107.7	1.21	1.12%	[10000]	ug/L
Mn 257.610†	763005.2	247.86	0.03%	[1000]	ug/L
Mo 202.031†	11611.8	10.83	0.09%	[1000]	ug/L
Na 589.592 Radial†	29207.5	520.28	1.78%	[10000]	ug/L
Ni 231.604†	31614.3	50.17	0.16%	[1000]	ug/L
P 214.914†	6603.3	6.17	0.09%	[5000]	ug/L
Pb 220.353†	6461.8	12.47	0.19%	[1000]	ug/L
S 181.975 Axial†	1123.9	4.05	0.36%	[2000]	ug/L
Sb 206.836†	2421.8	7.06	0.29%	[1000]	ug/L
Se 196.026†	1229.8	0.95	0.08%	[1000]	ug/L
Si 251.611†	134924.8	181.29	0.13%	[5000]	ug/L
Sn 189.927†	4416.2	14.06	0.32%	[1000]	ug/L
Sr 421.552†	101790.4	1721.01	1.69%	[1000]	ug/L
Ti 334.940†	591442.7	230.33	0.04%	[1000]	ug/L
Tl 190.801†	2577.8	5.00	0.19%	[1000]	ug/L
U 409.014†	34035.7	47.93	0.14%	[1000]	ug/L
V 292.402†	128194.8	145.78	0.11%	[1000]	ug/L
Zn 213.857†	82368.8	107.26	0.13%	[1000]	ug/L
SiO2†	136364.2	871.63	0.64%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/9/2010 14:48:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3304.6	3304.6	98.6	%	14:51:02
1	Y RADIAL	2710.8	2710.8	98.82	%	14:51:02
1	Al 396.153Radial†	22875.4	23252.3	[50000]	ug/L	14:50:42
1	Ca 317.933Radial†	12439.9	12602.0	[50000]	ug/L	14:50:42
1	Fe 238.204 Radial†	718.5	719.8	[20000]	ug/L	14:51:02
1	Mg 279.077 IEC†	508.1	514.7	[50000]	ug/L	14:51:02
1	Na 589.592 Radial†	58715.9	60311.7	[20000]	ug/L	14:50:42
1	Sc 361.383	820342.6	820342.6	98.275	%	14:51:59
1	Y 371.029	689086.4	689086.4	96.286	%	14:51:59
2	Sc Radial	3300.5	3300.5	98.5	%	14:51:27
2	Y RADIAL	2685.3	2685.3	97.89	%	14:51:27
2	Al 396.153Radial†	22769.6	23173.8	[50000]	ug/L	14:51:07
2	Ca 317.933Radial†	12325.8	12501.9	[50000]	ug/L	14:51:07
2	Fe 238.204 Radial†	714.2	716.4	[20000]	ug/L	14:51:27
2	Mg 279.077 IEC†	509.8	517.1	[50000]	ug/L	14:51:27
2	Na 589.592 Radial†	58199.2	59861.6	[20000]	ug/L	14:51:07
2	Sc 361.383	815736.9	815736.9	97.723	%	14:52:04
2	Y 371.029	684616.4	684616.4	95.662	%	14:52:04
3	Sc Radial	3301.3	3301.3	98.5	%	14:51:52
3	Y RADIAL	2685.6	2685.6	97.90	%	14:51:52
3	Al 396.153Radial†	23018.1	23420.7	[50000]	ug/L	14:51:32
3	Ca 317.933Radial†	12480.6	12656.2	[50000]	ug/L	14:51:32
3	Fe 238.204 Radial†	711.2	713.1	[20000]	ug/L	14:51:52
3	Mg 279.077 IEC†	502.8	509.9	[50000]	ug/L	14:51:52
3	Na 589.592 Radial†	58936.0	60595.7	[20000]	ug/L	14:51:32
3	Sc 361.383	817894.9	817894.9	97.981	%	14:52:10
3	Y 371.029	686927.3	686927.3	95.985	%	14:52:10

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	817991.5	2304.39	0.28%	97.993	%
Sc Radial	3302.1	2.20	0.07%	98.6	%
Y 371.029	686876.7	2235.44	0.33%	95.977	%
Y RADIAL	2693.9	14.63	0.54%	98.20	%
Al 396.153Radial†	23282.3	126.13	0.54%	[50000]	ug/L
Ca 317.933Radial†	12586.7	78.28	0.62%	[50000]	ug/L
Fe 238.204 Radial†	716.4	3.35	0.47%	[20000]	ug/L
Mg 279.077 IEC†	513.9	3.68	0.72%	[50000]	ug/L
Na 589.592 Radial†	60256.3	370.19	0.61%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	197.9	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	0.4653	0.00000	0.999992	
As 188.979	3	Lin Thru 0	0.0	1.799	0.00000	0.999988	
B 249.677	3	Lin Thru 0	0.0	35.67	0.00000	0.999958	
Ba 233.527	3	Lin Thru 0	0.0	107.1	0.00000	0.999996	
Be 313.107	3	Lin Thru 0	0.0	2317	0.00000	0.999998	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.2520	0.00000	0.999991	
Cd 226.502	3	Lin Thru 0	0.0	69.18	0.00000	1.000000	
Co 228.616	3	Lin Thru 0	0.0	38.56	0.00000	0.999958	
Cr 267.716	3	Lin Thru 0	0.0	76.67	0.00000	0.999997	
Cu 324.752	3	Lin Thru 0	0.0	310.7	0.00000	0.999994	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0360	0.00000	0.999962	
K 766.490 Radial	3	Lin Thru 0	0.0	2.184	0.00000	0.999978	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0103	0.00000	0.999928
Mn 257.610	3	Lin Thru 0	0.0	763.1	0.00000	0.999995
Mo 202.031	3	Lin Thru 0	0.0	11.59	0.00000	0.999987
Na 589.592 Radia	2	Lin Thru 0	0.0	2.994	0.00000	0.999924
Ni 231.604	3	Lin Thru 0	0.0	31.73	0.00000	0.999973
P 214.914	3	Lin Thru 0	0.0	1.317	0.00000	0.999981
Pb 220.353	3	Lin Thru 0	0.0	6.458	0.00000	0.999993
S 181.975 Axial	3	Lin Thru 0	0.0	0.5607	0.00000	0.999990
Sb 206.836	3	Lin Thru 0	0.0	2.413	0.00000	0.999975
Se 196.026	3	Lin Thru 0	0.0	1.229	0.00000	0.999991
Si 251.611	3	Lin Thru 0	0.0	26.97	0.00000	0.999999
Sn 189.927	3	Lin Thru 0	0.0	4.401	0.00000	0.999974
Sr 421.552	3	Lin Thru 0	0.0	100.8	0.00000	0.999828
Ti 334.940	3	Lin Thru 0	0.0	588.4	0.00000	0.999942
Tl 190.801	3	Lin Thru 0	0.0	2.578	0.00000	0.999988
U 409.014	3	Lin Thru 0	0.0	34.24	0.00000	0.999929
V 292.402	3	Lin Thru 0	0.0	128.1	0.00000	0.999998
Zn 213.857	3	Lin Thru 0	0.0	82.42	0.00000	0.999992
SiO2	3	Lin Thru 0	0.0	12.73	0.00000	0.999995

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/9/2010 14:54:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3321.1	3321.1	99.1	%			14:56:34
1	Y RADIAL	2724.7	2724.7	99.32	%			14:56:34
1	Al 396.153Radial†	2392.0	2473.2	5289.0	ug/L	5289.0	ppb	14:56:14
1	Ca 317.933Radial†	1320.8	1322.2	5247.3	ug/L	5247.3	ppb	14:56:34
1	Fe 238.204 Radial†	197.9	191.0	5323.9	ug/L	5323.9	ppb	14:56:34
1	K 766.490 Radial†	7880.4	5835.5	2667.7	ug/L	2667.7	ppb	14:56:14
1	Mg 279.077 IEC†	55.9	55.9	5429.7	ug/L	5429.7	ppb	14:56:34
1	Na 589.592 Radial†	6880.5	7723.8	2579.4	ug/L	2579.4	ppb	14:56:14
1	Sr 421.552†	57034.1	57501.4	570.15	ug/L	570.15	ppb	14:56:14
1	Sc 361.383	851286.8	851286.8	101.98	%			14:57:32
1	Y 371.029	722540.0	722540.0	100.96	%			14:57:32
1	Ag 328.068†	53230.1	52036.6	266.16	ug/L	266.16	ppb	14:57:32
1	As 188.979†	857.3	856.6	480.55	ug/L	480.55	ppb	14:57:52
1	B 249.677†	19204.5	18921.5	528.04	ug/L	528.04	ppb	14:57:32
1	Ba 233.527†	56914.2	55815.5	522.59	ug/L	522.59	ppb	14:57:32
1	Be 313.107†	624853.4	616324.1	267.13	ug/L	267.13	ppb	14:57:32
1	Cd 226.502†	35906.1	35350.0	510.88	ug/L	510.88	ppb	14:57:32
1	Co 228.616†	20783.3	20423.0	529.81	ug/L	529.81	ppb	14:57:32
1	Cr 267.716†	39223.5	38395.6	501.57	ug/L	501.57	ppb	14:57:32
1	Cu 324.752†	171185.1	161788.3	520.67	ug/L	520.67	ppb	14:57:32
1	Mn 257.610†	407635.7	399325.0	523.59	ug/L	523.59	ppb	14:57:32
1	Mo 202.031†	6400.7	6262.6	541.02	ug/L	541.02	ppb	14:57:52
1	Ni 231.604†	16917.7	16535.9	520.88	ug/L	520.88	ppb	14:57:32
1	P 214.914†	3631.7	3385.7	2470.3	ug/L	2470.3	ppb	14:57:52
1	Pb 220.353†	3320.8	3300.2	512.56	ug/L	512.56	ppb	14:57:52
1	S 181.975 Axial†	1474.7	1415.1	2523.1	ug/L	2523.1	ppb	14:57:52
1	Sb 206.836†	1280.5	1227.2	528.04	ug/L	528.04	ppb	14:57:52
1	Se 196.026†	3269.4	3225.1	2641.8	ug/L	2641.8	ppb	14:57:52
1	Si 251.611†	133419.5	130374.5	4827.4	ug/L	4827.4	ppb	14:57:32
1	Sn 189.927†	2454.0	2398.4	545.63	ug/L	545.63	ppb	14:57:52
1	Ti 334.940†	302501.6	297583.7	505.64	ug/L	505.64	ppb	14:57:32
1	Tl 190.801†	1394.9	1398.8	546.00	ug/L	546.00	ppb	14:57:52
1	U 409.014†	15515.2	17216.9	501.05	ug/L	501.05	ppb	14:57:32
1	V 292.402†	66425.8	66381.7	525.40	ug/L	525.40	ppb	14:57:32
1	Zn 213.857†	44341.6	42977.5	516.65	ug/L	516.65	ppb	14:57:32
1	SiO2†	133604.8	130530.2	10239	ug/L	10239	ppb	14:58:50
2	Sc Radial	3379.9	3379.9	101	%			14:57:00
2	Y RADIAL	2764.6	2764.6	100.8	%			14:57:00
2	Al 396.153Radial†	2318.2	2358.0	5041.2	ug/L	5041.2	ppb	14:56:40
2	Ca 317.933Radial†	1333.0	1311.1	5203.4	ug/L	5203.4	ppb	14:57:00
2	Fe 238.204 Radial†	199.3	188.9	5267.6	ug/L	5267.6	ppb	14:57:00
2	K 766.490 Radial†	7647.9	5466.8	2499.0	ug/L	2499.0	ppb	14:56:40
2	Mg 279.077 IEC†	57.9	56.9	5524.3	ug/L	5524.3	ppb	14:57:00
2	Na 589.592 Radial†	6487.2	7213.2	2408.9	ug/L	2408.9	ppb	14:56:40
2	Sr 421.552†	54695.9	54183.3	537.25	ug/L	537.25	ppb	14:56:40
2	Sc 361.383	844560.3	844560.3	101.18	%			14:57:58
2	Y 371.029	717635.1	717635.1	100.28	%			14:57:58
2	Ag 328.068†	52708.4	51936.8	265.64	ug/L	265.64	ppb	14:57:58
2	As 188.979†	876.4	882.2	494.72	ug/L	494.72	ppb	14:58:18
2	B 249.677†	18899.6	18770.2	523.81	ug/L	523.81	ppb	14:57:58
2	Ba 233.527†	56569.4	55919.1	523.55	ug/L	523.55	ppb	14:57:58
2	Be 313.107†	621203.5	617596.4	267.68	ug/L	267.68	ppb	14:57:58
2	Cd 226.502†	35559.2	35287.5	509.98	ug/L	509.98	ppb	14:57:58
2	Co 228.616†	20535.1	20340.0	527.67	ug/L	527.67	ppb	14:57:58
2	Cr 267.716†	38849.7	38332.5	500.75	ug/L	500.75	ppb	14:57:58
2	Cu 324.752†	169491.5	161451.3	519.58	ug/L	519.58	ppb	14:57:58
2	Mn 257.610†	404642.3	399549.9	523.87	ug/L	523.87	ppb	14:57:58
2	Mo 202.031†	6434.7	6346.2	548.23	ug/L	548.23	ppb	14:58:18
2	Ni 231.604†	16813.4	16564.9	521.79	ug/L	521.79	ppb	14:57:58

2	P 214.914†	3638.2	3420.5	2497.0	ug/L	2497.0 ppb	14:58:18
2	Pb 220.353†	3327.3	3332.5	517.54	ug/L	517.54 ppb	14:58:18
2	S 181.975 Axial†	1483.0	1434.9	2558.4	ug/L	2558.4 ppb	14:58:18
2	Sb 206.836†	1285.4	1242.0	534.40	ug/L	534.40 ppb	14:58:18
2	Se 196.026†	3287.8	3268.8	2677.2	ug/L	2677.2 ppb	14:58:18
2	Si 251.611†	132164.0	130175.6	4820.0	ug/L	4820.0 ppb	14:57:58
2	Sn 189.927†	2455.4	2419.0	550.31	ug/L	550.31 ppb	14:58:18
2	Ti 334.940†	300049.9	297523.0	505.52	ug/L	505.52 ppb	14:57:58
2	Tl 190.801†	1385.3	1400.3	546.56	ug/L	546.56 ppb	14:58:18
2	U 409.014†	15342.5	17167.4	499.61	ug/L	499.61 ppb	14:57:58
2	V 292.402†	65883.7	66364.8	525.38	ug/L	525.38 ppb	14:57:58
2	Zn 213.857†	43925.3	42912.4	515.86	ug/L	515.86 ppb	14:57:58
2	SiO2†	133296.0	131268.4	10297	ug/L	10297 ppb	14:58:55
3	Sc Radial	3346.6	3346.6	99.9	%		14:57:25
3	Y RADIAL	2727.9	2727.9	99.44	%		14:57:25
3	Al 396.153Radial†	2286.7	2349.4	5022.9	ug/L	5022.9 ppb	14:57:05
3	Ca 317.933Radial†	1325.7	1317.0	5226.8	ug/L	5226.8 ppb	14:57:25
3	Fe 238.204 Radial†	196.3	187.9	5238.1	ug/L	5238.1 ppb	14:57:25
3	K 766.490 Radial†	7689.5	5583.9	2552.6	ug/L	2552.6 ppb	14:57:05
3	Mg 279.077 IEC†	56.2	55.9	5420.6	ug/L	5420.6 ppb	14:57:25
3	Na 589.592 Radial†	6531.4	7321.5	2445.1	ug/L	2445.1 ppb	14:57:05
3	Sr 421.552†	53950.3	53976.0	535.19	ug/L	535.19 ppb	14:57:05
3	Sc 361.383	852018.2	852018.2	102.07	%		14:58:24
3	Y 371.029	723327.0	723327.0	101.07	%		14:58:24
3	Ag 328.068†	53165.5	51928.6	265.59	ug/L	265.59 ppb	14:58:24
3	As 188.979†	870.9	869.2	487.52	ug/L	487.52 ppb	14:58:44
3	B 249.677†	19087.7	18791.0	524.39	ug/L	524.39 ppb	14:58:24
3	Ba 233.527†	57064.8	55915.1	523.51	ug/L	523.51 ppb	14:58:24
3	Be 313.107†	626244.4	617160.8	267.49	ug/L	267.49 ppb	14:58:24
3	Cd 226.502†	35955.5	35368.1	511.15	ug/L	511.15 ppb	14:58:24
3	Co 228.616†	20799.7	20421.6	529.78	ug/L	529.78 ppb	14:58:24
3	Cr 267.716†	39195.5	38335.1	500.78	ug/L	500.78 ppb	14:58:24
3	Cu 324.752†	170775.4	161242.8	518.91	ug/L	518.91 ppb	14:58:24
3	Mn 257.610†	408391.4	399722.2	524.10	ug/L	524.10 ppb	14:58:24
3	Mo 202.031†	6416.6	6272.7	541.89	ug/L	541.89 ppb	14:58:44
3	Ni 231.604†	16939.6	16543.1	521.10	ug/L	521.10 ppb	14:58:24
3	P 214.914†	3629.0	3380.0	2466.3	ug/L	2466.3 ppb	14:58:44
3	Pb 220.353†	3329.6	3306.1	513.42	ug/L	513.42 ppb	14:58:44
3	S 181.975 Axial†	1482.2	1421.2	2534.0	ug/L	2534.0 ppb	14:58:44
3	Sb 206.836†	1285.6	1231.1	529.71	ug/L	529.71 ppb	14:58:44
3	Se 196.026†	3274.9	3227.7	2643.6	ug/L	2643.6 ppb	14:58:44
3	Si 251.611†	133359.6	130203.6	4821.1	ug/L	4821.1 ppb	14:58:24
3	Sn 189.927†	2460.5	2402.8	546.62	ug/L	546.62 ppb	14:58:44
3	Ti 334.940†	302488.7	297316.5	505.18	ug/L	505.18 ppb	14:58:24
3	Tl 190.801†	1400.9	1403.5	547.81	ug/L	547.81 ppb	14:58:44
3	U 409.014†	15353.6	17045.5	496.06	ug/L	496.06 ppb	14:58:24
3	V 292.402†	66450.5	66350.1	525.17	ug/L	525.17 ppb	14:58:24
3	Zn 213.857†	44441.9	43038.4	517.40	ug/L	517.40 ppb	14:58:24
3	SiO2†	133864.4	130672.1	10250	ug/L	10250 ppb	14:59:00

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849288.5	101.74	%	0.492				0.48%
Sc Radial	3349.2	100.0	%	0.88				0.88%
Y 371.029	721167.3	100.77	%	0.431				0.43%
Y RADIAL	2739.1	99.85	%	0.808				0.81%
Ag 328.068†	51967.3	265.80	ug/L	0.316	265.80	ppb	0.316	0.12%
QC value within limits for Ag 328.068 Recovery = 106.32%								
Al 396.153Radial†	2393.5	5117.7	ug/L	148.62	5117.7	ppb	148.62	2.90%
QC value within limits for Al 396.153Radial Recovery = 102.35%								
As 188.979†	869.4	487.60	ug/L	7.089	487.60	ppb	7.089	1.45%
QC value within limits for As 188.979 Recovery = 97.52%								
B 249.677†	18827.5	525.42	ug/L	2.292	525.42	ppb	2.292	0.44%
QC value within limits for B 249.677 Recovery = 105.08%								
Ba 233.527†	55883.2	523.22	ug/L	0.547	523.22	ppb	0.547	0.10%
QC value within limits for Ba 233.527 Recovery = 104.64%								
Be 313.107†	617027.1	267.44	ug/L	0.279	267.44	ppb	0.279	0.10%
QC value within limits for Be 313.107 Recovery = 106.97%								
Ca 317.933Radial†	1316.8	5225.8	ug/L	21.96	5225.8	ppb	21.96	0.42%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.52%
Cd 226.502†            35335.2      510.67 ug/L         0.611      510.67 ppb          0.611   0.12%
   QC value within limits for Cd 226.502  Recovery = 102.13%
Co 228.616†            20394.9      529.08 ug/L         1.223      529.08 ppb          1.223   0.23%
   QC value within limits for Co 228.616  Recovery = 105.82%
Cr 267.716†            38354.4      501.03 ug/L         0.467      501.03 ppb          0.467   0.09%
   QC value within limits for Cr 267.716  Recovery = 100.21%
Cu 324.752†           161494.1      519.72 ug/L         0.887      519.72 ppb          0.887   0.17%
   QC value within limits for Cu 324.752  Recovery = 103.94%
Fe 238.204 Radial†       189.3      5276.5 ug/L         43.59      5276.5 ppb          43.59   0.83%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.53%
K 766.490 Radial†       5628.7      2573.1 ug/L         86.20      2573.1 ppb          86.20   3.35%
   QC value within limits for K 766.490 Radial  Recovery = 102.92%
Mg 279.077 IEC†           56.2      5458.2 ug/L         57.41      5458.2 ppb          57.41   1.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.16%
Mn 257.610†           399532.4      523.85 ug/L         0.257      523.85 ppb          0.257   0.05%
   QC value within limits for Mn 257.610  Recovery = 104.77%
Mo 202.031†             6293.8      543.71 ug/L         3.936      543.71 ppb          3.936   0.72%
   QC value within limits for Mo 202.031  Recovery = 108.74%
Na 589.592 Radial†      7419.5      2477.8 ug/L         89.85      2477.8 ppb          89.85   3.63%
   QC value within limits for Na 589.592 Radial  Recovery = 99.11%
Ni 231.604†            16548.0      521.26 ug/L         0.477      521.26 ppb          0.477   0.09%
   QC value within limits for Ni 231.604  Recovery = 104.25%
P 214.914†              3395.4      2477.8 ug/L         16.68      2477.8 ppb          16.68   0.67%
   QC value within limits for P 214.914  Recovery = 99.11%
Pb 220.353†             3312.9      514.51 ug/L         2.660      514.51 ppb          2.660   0.52%
   QC value within limits for Pb 220.353  Recovery = 102.90%
S 181.975 Axial†        1423.8      2538.5 ug/L         18.10      2538.5 ppb          18.10   0.71%
   QC value within limits for S 181.975 Axial  Recovery = 101.54%
Sb 206.836†             1233.4      530.72 ug/L         3.298      530.72 ppb          3.298   0.62%
   QC value within limits for Sb 206.836  Recovery = 106.14%
Se 196.026†             3240.5      2654.2 ug/L         19.90      2654.2 ppb          19.90   0.75%
   QC value within limits for Se 196.026  Recovery = 106.17%
Si 251.611†           130251.2      4822.8 ug/L          4.03      4822.8 ppb           4.03   0.08%
   QC value within limits for Si 251.611  Recovery = 96.46%
Sn 189.927†             2406.8      547.52 ug/L         2.464      547.52 ppb          2.464   0.45%
   QC value within limits for Sn 189.927  Recovery = 109.50%
Sr 421.552†            55220.2      547.53 ug/L        19.616      547.53 ppb         19.616   3.58%
   QC value within limits for Sr 421.552  Recovery = 109.51%
Ti 334.940†           297474.4      505.45 ug/L         0.236      505.45 ppb          0.236   0.05%
   QC value within limits for Ti 334.940  Recovery = 101.09%
Tl 190.801†             1400.9      546.79 ug/L         0.930      546.79 ppb          0.930   0.17%
   QC value within limits for Tl 190.801  Recovery = 109.36%
U 409.014†             17143.3      498.90 ug/L         2.570      498.90 ppb          2.570   0.52%
   QC value within limits for U 409.014  Recovery = 99.78%
V 292.402†             66365.5      525.32 ug/L         0.127      525.32 ppb          0.127   0.02%
   QC value within limits for V 292.402  Recovery = 105.06%
Zn 213.857†            42976.1      516.64 ug/L         0.770      516.64 ppb          0.770   0.15%
   QC value within limits for Zn 213.857  Recovery = 103.33%
SiO2†                 130823.6       10262 ug/L          30.7       10262 ppb           30.7   0.30%
   QC value within limits for SiO2  Recovery = 95.95%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/9/2010 15:01:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3319.7	3319.7	99.1	%			15:03:24
1	Y RADIAL	2736.8	2736.8	99.77	%			15:03:24
1	Al 396.153Radial†	-64.9	-5.5	-11.746	ug/L	-11.746	ppb	15:03:24
1	Ca 317.933Radial†	9.8	-0.3	-1.1659	ug/L	-1.1659	ppb	15:03:24
1	Fe 238.204 Radial†	7.7	-0.8	-22.872	ug/L	-22.872	ppb	15:03:24
1	K 766.490 Radial†	2060.2	-35.2	-16.097	ug/L	-16.097	ppb	15:03:04
1	Mg 279.077 IEC†	2.6	2.1	206.35	ug/L	206.35	ppb	15:03:24
1	Na 589.592 Radial†	-800.2	-25.0	-8.3412	ug/L	-8.3412	ppb	15:03:04
1	Sr 421.552†	39.7	4.4	0.0439	ug/L	0.0439	ppb	15:03:04
1	Sc 361.383	840081.1	840081.1	100.64	%			15:04:21
1	Y 371.029	719941.1	719941.1	100.60	%			15:04:21
1	Ag 328.068†	153.0	-7.0	-0.0440	ug/L	-0.0440	ppb	15:04:21
1	As 188.979†	-20.8	-4.7	-2.5948	ug/L	-2.5948	ppb	15:04:41
1	B 249.677†	-50.9	39.6	1.1141	ug/L	1.1141	ppb	15:04:41
1	Ba 233.527†	-1.8	5.4	0.0499	ug/L	0.0499	ppb	15:04:41
1	Be 313.107†	-3591.6	43.8	0.0189	ug/L	0.0189	ppb	15:04:21
1	Cd 226.502†	-147.5	-5.0	-0.0691	ug/L	-0.0691	ppb	15:04:41
1	Co 228.616†	-49.1	-5.3	-0.1372	ug/L	-0.1372	ppb	15:04:41
1	Cr 267.716†	74.8	8.6	0.1107	ug/L	0.1107	ppb	15:04:41
1	Cu 324.752†	6189.9	80.1	0.2558	ug/L	0.2558	ppb	15:04:21
1	Mn 257.610†	397.1	4.8	-0.0043	ug/L	-0.0043	ppb	15:04:41
1	Mo 202.031†	8.9	-5.0	-0.4314	ug/L	-0.4314	ppb	15:04:41
1	Ni 231.604†	71.6	18.1	0.5717	ug/L	0.5717	ppb	15:04:41
1	P 214.914†	175.9	-0.6	-0.5076	ug/L	-0.5076	ppb	15:04:41
1	Pb 220.353†	-41.8	2.4	0.3637	ug/L	0.3637	ppb	15:04:41
1	S 181.975 Axial†	29.6	-1.5	-2.6428	ug/L	-2.6428	ppb	15:04:41
1	Sb 206.836†	25.5	-3.1	-1.2750	ug/L	-1.2750	ppb	15:04:41
1	Se 196.026†	-12.7	6.6	5.3014	ug/L	5.3014	ppb	15:04:41
1	Si 251.611†	503.1	47.5	1.7665	ug/L	1.7665	ppb	15:04:41
1	Sn 189.927†	15.1	7.1	1.6226	ug/L	1.6226	ppb	15:04:41
1	Ti 334.940†	-957.7	8.7	-0.0029	ug/L	-0.0029	ppb	15:04:21
1	Tl 190.801†	-27.4	3.8	1.4744	ug/L	1.4744	ppb	15:04:41
1	U 409.014†	-1968.6	47.1	1.3771	ug/L	1.3771	ppb	15:04:21
1	V 292.402†	-1263.4	-8.7	-0.0638	ug/L	-0.0638	ppb	15:04:21
1	Zn 213.857†	577.3	71.2	0.8635	ug/L	0.8635	ppb	15:04:41
1	SiO2†	495.5	13.9	1.1030	ug/L	1.1030	ppb	15:05:52
2	Sc Radial	3379.6	3379.6	101	%			15:03:49
2	Y RADIAL	2775.7	2775.7	101.2	%			15:03:49
2	Al 396.153Radial†	-52.2	8.2	17.746	ug/L	17.746	ppb	15:03:49
2	Ca 317.933Radial†	11.2	0.9	3.6154	ug/L	3.6154	ppb	15:03:49
2	Fe 238.204 Radial†	8.6	-0.1	-1.6727	ug/L	-1.6727	ppb	15:03:49
2	K 766.490 Radial†	2052.5	-79.6	-36.445	ug/L	-36.445	ppb	15:03:29
2	Mg 279.077 IEC†	1.9	1.4	137.33	ug/L	137.33	ppb	15:03:49
2	Na 589.592 Radial†	-763.7	25.5	8.5317	ug/L	8.5317	ppb	15:03:29
2	Sr 421.552†	2.8	-32.9	-0.3263	ug/L	-0.3263	ppb	15:03:29
2	Sc 361.383	855550.6	855550.6	102.49	%			15:04:46
2	Y 371.029	734338.9	734338.9	102.61	%			15:04:46
2	Ag 328.068†	178.6	15.2	0.0757	ug/L	0.0757	ppb	15:04:46
2	As 188.979†	-17.7	-1.4	-0.7498	ug/L	-0.7498	ppb	15:05:06
2	B 249.677†	-82.5	9.7	0.2724	ug/L	0.2724	ppb	15:05:06
2	Ba 233.527†	-2.2	5.0	0.0488	ug/L	0.0488	ppb	15:05:06
2	Be 313.107†	-3635.1	65.8	0.0286	ug/L	0.0286	ppb	15:04:46
2	Cd 226.502†	-145.0	0.1	0.0030	ug/L	0.0030	ppb	15:05:06
2	Co 228.616†	-44.8	-0.2	-0.0067	ug/L	-0.0067	ppb	15:05:06
2	Cr 267.716†	73.7	6.2	0.0801	ug/L	0.0801	ppb	15:05:06
2	Cu 324.752†	6230.6	8.7	0.0253	ug/L	0.0253	ppb	15:04:46
2	Mn 257.610†	405.4	5.9	0.0019	ug/L	0.0019	ppb	15:05:06
2	Mo 202.031†	5.9	-8.0	-0.6909	ug/L	-0.6909	ppb	15:05:06
2	Ni 231.604†	49.4	-4.8	-0.1520	ug/L	-0.1520	ppb	15:05:06

2	P 214.914†	172.8	-6.8	-5.1790	ug/L	-5.1790 ppb	15:05:06
2	Pb 220.353†	-58.6	-13.2	-2.0450	ug/L	-2.0450 ppb	15:05:06
2	S 181.975 Axial†	24.3	-7.1	-12.714	ug/L	-12.714 ppb	15:05:06
2	Sb 206.836†	29.6	0.4	0.1583	ug/L	0.1583 ppb	15:05:06
2	Se 196.026†	-16.6	3.0	2.4244	ug/L	2.4244 ppb	15:05:06
2	Si 251.611†	503.5	38.9	1.4493	ug/L	1.4493 ppb	15:05:06
2	Sn 189.927†	6.4	-1.6	-0.3543	ug/L	-0.3543 ppb	15:05:06
2	Ti 334.940†	-940.2	42.9	0.0602	ug/L	0.0602 ppb	15:04:46
2	Tl 190.801†	-20.7	10.9	4.2146	ug/L	4.2146 ppb	15:05:06
2	U 409.014†	-1894.9	154.3	4.5062	ug/L	4.5062 ppb	15:04:46
2	V 292.402†	-1172.0	103.3	0.8078	ug/L	0.8078 ppb	15:04:46
2	Zn 213.857†	574.9	58.5	0.7107	ug/L	0.7107 ppb	15:05:06
2	SiO2†	492.0	1.6	0.1450	ug/L	0.1450 ppb	15:06:12
3	Sc Radial	3351.8	3351.8	100	%		15:04:14
3	Y RADIAL	2759.6	2759.6	100.6	%		15:04:14
3	Al 396.153Radial†	-67.9	-7.9	-16.875	ug/L	-16.875 ppb	15:04:14
3	Ca 317.933Radial†	11.7	1.5	5.8697	ug/L	5.8697 ppb	15:04:14
3	Fe 238.204 Radial†	7.1	-1.5	-41.776	ug/L	-41.776 ppb	15:04:14
3	K 766.490 Radial†	2127.5	12.2	5.5950	ug/L	5.5950 ppb	15:03:54
3	Mg 279.077 IEC†	3.1	2.7	257.65	ug/L	257.65 ppb	15:04:14
3	Na 589.592 Radial†	-722.8	60.1	20.057	ug/L	20.057 ppb	15:03:54
3	Sr 421.552†	34.0	-1.7	-0.0167	ug/L	-0.0167 ppb	15:03:54
3	Sc 361.383	839421.3	839421.3	100.56	%		15:05:12
3	Y 371.029	720451.4	720451.4	100.67	%		15:05:12
3	Ag 328.068†	142.9	-16.9	-0.0999	ug/L	-0.0999 ppb	15:05:12
3	As 188.979†	-13.5	2.5	1.4042	ug/L	1.4042 ppb	15:05:32
3	B 249.677†	-104.7	-14.0	-0.3845	ug/L	-0.3845 ppb	15:05:32
3	Ba 233.527†	17.9	25.0	0.2313	ug/L	0.2313 ppb	15:05:32
3	Be 313.107†	-3540.5	91.8	0.0398	ug/L	0.0398 ppb	15:05:12
3	Cd 226.502†	-145.1	-2.7	-0.0345	ug/L	-0.0345 ppb	15:05:32
3	Co 228.616†	-43.2	0.6	0.0153	ug/L	0.0153 ppb	15:05:32
3	Cr 267.716†	72.2	6.1	0.0772	ug/L	0.0772 ppb	15:05:32
3	Cu 324.752†	6159.5	54.8	0.1740	ug/L	0.1740 ppb	15:05:12
3	Mn 257.610†	442.9	50.7	0.0518	ug/L	0.0518 ppb	15:05:32
3	Mo 202.031†	9.1	-4.7	-0.4101	ug/L	-0.4101 ppb	15:05:32
3	Ni 231.604†	72.3	18.8	0.5932	ug/L	0.5932 ppb	15:05:32
3	P 214.914†	185.1	8.7	6.6092	ug/L	6.6092 ppb	15:05:32
3	Pb 220.353†	-38.1	6.0	0.9305	ug/L	0.9305 ppb	15:05:32
3	S 181.975 Axial†	31.9	0.8	1.4624	ug/L	1.4624 ppb	15:05:32
3	Sb 206.836†	28.9	0.3	0.1477	ug/L	0.1477 ppb	15:05:32
3	Se 196.026†	-15.7	3.6	2.7802	ug/L	2.7802 ppb	15:05:32
3	Si 251.611†	487.3	32.2	1.1997	ug/L	1.1997 ppb	15:05:32
3	Sn 189.927†	15.7	7.8	1.7844	ug/L	1.7844 ppb	15:05:32
3	Ti 334.940†	-931.1	34.4	0.0381	ug/L	0.0381 ppb	15:05:12
3	Tl 190.801†	-15.4	15.8	6.1286	ug/L	6.1286 ppb	15:05:32
3	U 409.014†	-2014.4	-0.0	0.0043	ug/L	0.0043 ppb	15:05:12
3	V 292.402†	-1294.2	-40.2	-0.3085	ug/L	-0.3085 ppb	15:05:12
3	Zn 213.857†	610.1	104.2	1.2667	ug/L	1.2667 ppb	15:05:32
3	SiO2†	499.5	18.2	1.4435	ug/L	1.4435 ppb	15:06:32

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	845017.6	101.23	%	1.093				1.08%
Sc Radial	3350.4	100.0	%	0.90				0.90%
Y 371.029	724910.4	101.29	%	1.141				1.13%
Y RADIAL	2757.4	100.5	%	0.71				0.71%
Ag 328.068†	-2.9	-0.0227	ug/L	0.08968	-0.0227	ppb	0.08968	394.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.7	-3.6250	ug/L	18.68469	-3.6250	ppb	18.68469	515.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-0.6468	ug/L	2.00150	-0.6468	ppb	2.00150	309.45%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	11.8	0.3340	ug/L	0.75117	0.3340	ppb	0.75117	224.89%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.8	0.1100	ug/L	0.10507	0.1100	ppb	0.10507	95.52%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	67.1	0.0291	ug/L	0.01043	0.0291	ppb	0.01043	35.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.7	2.7731	ug/L	3.59263	2.7731	ppb	3.59263	129.55%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -2.5     -0.0335 ug/L       0.03607     -0.0335 ppb        0.03607 107.55%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -1.6     -0.0429 ug/L       0.08246     -0.0429 ppb        0.08246 192.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               7.0      0.0893 ug/L       0.01855      0.0893 ppb        0.01855  20.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              47.8      0.1517 ug/L       0.11689      0.1517 ppb        0.11689  77.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.8     -22.107 ug/L       20.0624     -22.107 ppb        20.0624  90.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -34.2     -15.649 ug/L       21.0236     -15.649 ppb        21.0236 134.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.1      200.44 ug/L        60.378      200.44 ppb         60.378  30.12%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              20.5      0.0165 ug/L       0.03079      0.0165 ppb        0.03079 187.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -5.9     -0.5108 ug/L       0.15633     -0.5108 ppb        0.15633  30.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       20.2      6.7490 ug/L      14.28261      6.7490 ppb       14.28261 211.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.7      0.3376 ug/L       0.42414      0.3376 ppb        0.42414 125.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.4      0.3075 ug/L       5.93623      0.3075 ppb        5.93623 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.6     -0.2503 ug/L       1.57991     -0.2503 ppb        1.57991 631.19%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -4.6314 ug/L       7.29439     -4.6314 ppb        7.29439 157.50%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.8     -0.3230 ug/L       0.82449     -0.3230 ppb        0.82449 255.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.4      3.5020 ug/L       1.56847      3.5020 ppb        1.56847  44.79%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              39.5      1.4718 ug/L       0.28406      1.4718 ppb        0.28406  19.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.5      1.0176 ug/L       1.19079      1.0176 ppb        1.19079 117.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -10.1     -0.0997 ug/L       0.19855     -0.0997 ppb        0.19855 199.17%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              28.6      0.0318 ug/L       0.03201      0.0318 ppb        0.03201 100.65%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.2      3.9392 ug/L       2.33930      3.9392 ppb        2.33930  59.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               67.1      1.9625 ug/L       2.30736      1.9625 ppb        2.30736 117.57%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               18.1      0.1452 ug/L       0.58677      0.1452 ppb        0.58677 404.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              78.0      0.9470 ug/L       0.28725      0.9470 ppb        0.28725  30.33%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    11.2      0.8972 ug/L       0.67325      0.8972 ppb        0.67325  75.04%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/9/2010 15:08:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3325.5	3325.5	99.3	%			15:10:56
1	Y RADIAL	2731.6	2731.6	99.58	%			15:10:56
1	Al 396.153Radial†	27.2	87.5	187.49	ug/L	187.49	ppb	15:10:56
1	Ca 317.933Radial†	59.5	49.7	197.23	ug/L	197.23	ppb	15:10:56
1	Fe 238.204 Radial†	10.8	2.2	61.833	ug/L	61.833	ppb	15:10:56
1	K 766.490 Radial†	2328.5	231.5	105.76	ug/L	105.76	ppb	15:10:36
1	Mg 279.077 IEC†	5.3	4.9	471.41	ug/L	471.41	ppb	15:10:56
1	Na 589.592 Radial†	137.4	921.1	307.60	ug/L	307.60	ppb	15:10:36
1	Sr 421.552†	541.5	509.9	5.0549	ug/L	5.0549	ppb	15:10:36
1	Sc 361.383	836172.2	836172.2	100.17	%			15:11:53
1	Y 371.029	716859.7	716859.7	100.17	%			15:11:53
1	Ag 328.068†	1193.1	1032.0	5.2060	ug/L	5.2060	ppb	15:11:53
1	As 188.979†	24.5	40.4	22.480	ug/L	22.480	ppb	15:12:13
1	B 249.677†	1539.7	1627.3	45.592	ug/L	45.592	ppb	15:11:53
1	Ba 233.527†	539.9	546.2	5.1140	ug/L	5.1140	ppb	15:12:13
1	Be 313.107†	8269.7	11868.2	5.1337	ug/L	5.1337	ppb	15:11:53
1	Cd 226.502†	181.4	322.6	4.6713	ug/L	4.6713	ppb	15:12:13
1	Co 228.616†	163.1	206.3	5.3625	ug/L	5.3625	ppb	15:12:13
1	Cr 267.716†	449.0	382.5	4.9771	ug/L	4.9771	ppb	15:12:13
1	Cu 324.752†	9266.1	3179.8	10.206	ug/L	10.206	ppb	15:11:53
1	Mn 257.610†	8476.0	8071.9	10.564	ug/L	10.564	ppb	15:11:53
1	Mo 202.031†	126.6	112.7	9.7305	ug/L	9.7305	ppb	15:12:13
1	Ni 231.604†	227.9	174.5	5.4972	ug/L	5.4972	ppb	15:12:13
1	P 214.914†	359.1	183.1	137.13	ug/L	137.13	ppb	15:12:13
1	Pb 220.353†	31.5	75.3	11.720	ug/L	11.720	ppb	15:12:13
1	S 181.975 Axial†	84.3	53.3	95.020	ug/L	95.020	ppb	15:12:13
1	Sb 206.836†	56.2	27.6	11.785	ug/L	11.785	ppb	15:12:13
1	Se 196.026†	29.5	48.6	39.812	ug/L	39.812	ppb	15:12:13
1	Si 251.611†	3128.0	2670.2	98.887	ug/L	98.887	ppb	15:12:13
1	Sn 189.927†	46.0	38.1	8.6879	ug/L	8.6879	ppb	15:12:13
1	Ti 334.940†	2109.7	3066.3	5.1736	ug/L	5.1736	ppb	15:11:53
1	Tl 190.801†	22.8	53.8	20.924	ug/L	20.924	ppb	15:12:13
1	U 409.014†	-125.6	1877.7	54.817	ug/L	54.817	ppb	15:11:53
1	V 292.402†	-606.7	641.1	5.2393	ug/L	5.2393	ppb	15:11:53
1	Zn 213.857†	1347.7	842.9	10.169	ug/L	10.169	ppb	15:12:13
1	SiO2†	3233.3	2749.3	215.70	ug/L	215.70	ppb	15:13:09
2	Sc Radial	3327.1	3327.1	99.3	%			15:11:22
2	Y RADIAL	2717.5	2717.5	99.06	%			15:11:22
2	Al 396.153Radial†	27.2	87.4	187.30	ug/L	187.30	ppb	15:11:22
2	Ca 317.933Radial†	56.9	47.1	186.83	ug/L	186.83	ppb	15:11:22
2	Fe 238.204 Radial†	9.8	1.2	34.811	ug/L	34.811	ppb	15:11:22
2	K 766.490 Radial†	2477.7	380.6	174.05	ug/L	174.05	ppb	15:11:01
2	Mg 279.077 IEC†	3.7	3.3	322.86	ug/L	322.86	ppb	15:11:22
2	Na 589.592 Radial†	107.0	890.3	297.33	ug/L	297.33	ppb	15:11:01
2	Sr 421.552†	521.0	489.0	4.8472	ug/L	4.8472	ppb	15:11:01
2	Sc 361.383	833384.1	833384.1	99.837	%			15:12:19
2	Y 371.029	714671.3	714671.3	99.861	%			15:12:19
2	Ag 328.068†	1181.5	1024.4	5.1600	ug/L	5.1600	ppb	15:12:19
2	As 188.979†	28.1	44.1	24.566	ug/L	24.566	ppb	15:12:39
2	B 249.677†	1555.2	1648.0	46.176	ug/L	46.176	ppb	15:12:19
2	Ba 233.527†	551.7	559.8	5.2401	ug/L	5.2401	ppb	15:12:39
2	Be 313.107†	8145.4	11771.2	5.0917	ug/L	5.0917	ppb	15:12:19
2	Cd 226.502†	194.6	336.5	4.8747	ug/L	4.8747	ppb	15:12:39
2	Co 228.616†	163.9	207.8	5.4005	ug/L	5.4005	ppb	15:12:39
2	Cr 267.716†	462.2	397.2	5.1687	ug/L	5.1687	ppb	15:12:39
2	Cu 324.752†	9209.8	3154.3	10.124	ug/L	10.124	ppb	15:12:19
2	Mn 257.610†	8428.9	8053.0	10.543	ug/L	10.543	ppb	15:12:19
2	Mo 202.031†	129.0	115.5	9.9716	ug/L	9.9716	ppb	15:12:39
2	Ni 231.604†	222.6	169.9	5.3522	ug/L	5.3522	ppb	15:12:39

2	P 214.914†	364.5	189.7	142.19 ug/L	142.19 ppb	15:12:39
2	Pb 220.353†	11.2	55.1	8.5910 ug/L	8.5910 ppb	15:12:39
2	S 181.975 Axial†	85.7	55.0	98.084 ug/L	98.084 ppb	15:12:39
2	Sb 206.836†	50.8	22.4	9.6237 ug/L	9.6237 ppb	15:12:39
2	Se 196.026†	24.1	43.4	35.478 ug/L	35.478 ppb	15:12:39
2	Si 251.611†	3128.9	2681.6	99.307 ug/L	99.307 ppb	15:12:39
2	Sn 189.927†	51.2	43.4	9.9004 ug/L	9.9004 ppb	15:12:39
2	Ti 334.940†	2051.3	3014.9	5.0976 ug/L	5.0976 ppb	15:12:19
2	Tl 190.801†	14.8	45.9	17.849 ug/L	17.849 ppb	15:12:39
2	U 409.014†	-179.0	1823.9	53.245 ug/L	53.245 ppb	15:12:19
2	V 292.402†	-615.0	630.8	5.1607 ug/L	5.1607 ppb	15:12:19
2	Zn 213.857†	1348.6	848.3	10.240 ug/L	10.240 ppb	15:12:39
2	SiO2†	3235.2	2762.0	216.70 ug/L	216.70 ppb	15:13:15
3	Sc Radial	3345.9	3345.9	99.9 %		15:11:47
3	Y RADIAL	2753.8	2753.8	100.4 %		15:11:47
3	Al 396.153Radial†	27.3	87.4	187.35 ug/L	187.35 ppb	15:11:47
3	Ca 317.933Radial†	59.4	49.3	195.64 ug/L	195.64 ppb	15:11:47
3	Fe 238.204 Radial†	12.6	4.0	111.14 ug/L	111.14 ppb	15:11:47
3	K 766.490 Radial†	2343.8	232.6	106.26 ug/L	106.26 ppb	15:11:27
3	Mg 279.077 IEC†	5.2	4.7	458.42 ug/L	458.42 ppb	15:11:47
3	Na 589.592 Radial†	145.4	928.2	309.98 ug/L	309.98 ppb	15:11:27
3	Sr 421.552†	509.3	474.3	4.7013 ug/L	4.7013 ppb	15:11:27
3	Sc 361.383	837327.1	837327.1	100.31 %		15:12:44
3	Y 371.029	717164.5	717164.5	100.21 %		15:12:44
3	Ag 328.068†	1081.9	919.5	4.6550 ug/L	4.6550 ppb	15:12:44
3	As 188.979†	29.8	45.7	25.459 ug/L	25.459 ppb	15:13:04
3	B 249.677†	1555.4	1640.8	45.963 ug/L	45.963 ppb	15:12:44
3	Ba 233.527†	544.7	550.2	5.1544 ug/L	5.1544 ppb	15:13:04
3	Be 313.107†	8138.2	11725.6	5.0715 ug/L	5.0715 ppb	15:12:44
3	Cd 226.502†	206.2	347.1	5.0197 ug/L	5.0197 ppb	15:13:04
3	Co 228.616†	149.3	192.4	4.9993 ug/L	4.9993 ppb	15:13:04
3	Cr 267.716†	464.1	397.0	5.1687 ug/L	5.1687 ppb	15:13:04
3	Cu 324.752†	9226.7	3127.8	10.041 ug/L	10.041 ppb	15:12:44
3	Mn 257.610†	8488.1	8072.2	10.570 ug/L	10.570 ppb	15:12:44
3	Mo 202.031†	126.1	111.9	9.6689 ug/L	9.6689 ppb	15:13:04
3	Ni 231.604†	211.3	157.6	4.9648 ug/L	4.9648 ppb	15:13:04
3	P 214.914†	369.6	193.1	144.69 ug/L	144.69 ppb	15:13:04
3	Pb 220.353†	28.5	72.4	11.251 ug/L	11.251 ppb	15:13:04
3	S 181.975 Axial†	80.7	49.6	88.419 ug/L	88.419 ppb	15:13:04
3	Sb 206.836†	41.3	12.7	5.5895 ug/L	5.5895 ppb	15:13:04
3	Se 196.026†	17.2	36.3	29.958 ug/L	29.958 ppb	15:13:04
3	Si 251.611†	3115.0	2653.0	98.250 ug/L	98.250 ppb	15:13:04
3	Sn 189.927†	44.7	36.8	8.3859 ug/L	8.3859 ppb	15:13:04
3	Ti 334.940†	1934.5	2888.8	4.8727 ug/L	4.8727 ppb	15:12:44
3	Tl 190.801†	27.9	58.8	22.885 ug/L	22.885 ppb	15:13:04
3	U 409.014†	-127.7	1875.9	54.756 ug/L	54.756 ppb	15:12:44
3	V 292.402†	-541.0	707.5	5.7494 ug/L	5.7494 ppb	15:12:44
3	Zn 213.857†	1365.0	858.4	10.353 ug/L	10.353 ppb	15:13:04
3	SiO2†	3204.2	2715.9	213.08 ug/L	213.08 ppb	15:13:20

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835627.8	100.11	%	0.243				0.24%
Sc Radial	3332.9	99.5	%	0.34				0.34%
Y 371.029	716231.8	100.08	%	0.190				0.19%
Y RADIAL	2734.3	99.67	%	0.667				0.67%
Ag 328.068†	992.0	5.0070	ug/L	0.30574	5.0070	ppb	0.30574	6.11%
QC value within limits for Ag 328.068 Recovery = 100.14%								
Al 396.153Radial†	87.4	187.38	ug/L	0.098	187.38	ppb	0.098	0.05%
QC value within limits for Al 396.153Radial Recovery = 93.69%								
As 188.979†	43.4	24.168	ug/L	1.5288	24.168	ppb	1.5288	6.33%
QC value within limits for As 188.979 Recovery = 80.56%								
B 249.677†	1638.7	45.910	ug/L	0.2954	45.910	ppb	0.2954	0.64%
QC value within limits for B 249.677 Recovery = 91.82%								
Ba 233.527†	552.1	5.1695	ug/L	0.06438	5.1695	ppb	0.06438	1.25%
QC value within limits for Ba 233.527 Recovery = 103.39%								
Be 313.107†	11788.4	5.0990	ug/L	0.03173	5.0990	ppb	0.03173	0.62%
QC value within limits for Be 313.107 Recovery = 101.98%								
Ca 317.933Radial†	48.7	193.23	ug/L	5.602	193.23	ppb	5.602	2.90%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.62%
Cd 226.502†              335.4      4.8552 ug/L       0.17501      4.8552 ppb        0.17501   3.60%
   QC value within limits for Cd 226.502  Recovery = 97.10%
Co 228.616†              202.2      5.2541 ug/L       0.22149      5.2541 ppb        0.22149   4.22%
   QC value within limits for Co 228.616  Recovery = 105.08%
Cr 267.716†              392.2      5.1048 ug/L       0.11060      5.1048 ppb        0.11060   2.17%
   QC value within limits for Cr 267.716  Recovery = 102.10%
Cu 324.752†             3154.0      10.124 ug/L        0.0824      10.124 ppb         0.0824   0.81%
   QC value within limits for Cu 324.752  Recovery = 101.24%
Fe 238.204 Radial†         2.5      69.263 ug/L       38.7055      69.263 ppb        38.7055  55.88%
   QC value less than the lower limit for Fe 238.204 Radial  Recovery = 69.26%
K 766.490 Radial†        281.6      128.69 ug/L        39.287      128.69 ppb         39.287  30.53%
   QC value within limits for K 766.490 Radial  Recovery = 85.79%
Mg 279.077 IEC†            4.3      417.56 ug/L        82.275      417.56 ppb         82.275  19.70%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 139.19%
Mn 257.610†             8065.7      10.559 ug/L        0.0143      10.559 ppb         0.0143   0.14%
   QC value within limits for Mn 257.610  Recovery = 105.59%
Mo 202.031†              113.3      9.7903 ug/L       0.15996      9.7903 ppb        0.15996   1.63%
   QC value within limits for Mo 202.031  Recovery = 97.90%
Na 589.592 Radial†       913.2      304.97 ug/L         6.721      304.97 ppb          6.721   2.20%
   QC value within limits for Na 589.592 Radial  Recovery = 101.66%
Ni 231.604†              167.3      5.2714 ug/L       0.27529      5.2714 ppb        0.27529   5.22%
   QC value within limits for Ni 231.604  Recovery = 105.43%
P 214.914†               188.6      141.34 ug/L         3.855      141.34 ppb          3.855   2.73%
   QC value within limits for P 214.914  Recovery = 94.22%
Pb 220.353†               67.6      10.520 ug/L        1.6874      10.520 ppb         1.6874  16.04%
   QC value within limits for Pb 220.353  Recovery = 105.20%
S 181.975 Axial†          52.6      93.841 ug/L        4.9395      93.841 ppb         4.9395   5.26%
   QC value within limits for S 181.975 Axial  Recovery = 93.84%
Sb 206.836†               20.9      8.9993 ug/L       3.14447      8.9993 ppb        3.14447  34.94%
   QC value within limits for Sb 206.836  Recovery = 89.99%
Se 196.026†               42.8      35.083 ug/L        4.9388      35.083 ppb         4.9388  14.08%
   QC value within limits for Se 196.026  Recovery = 116.94%
Si 251.611†             2668.3      98.815 ug/L        0.5320      98.815 ppb         0.5320   0.54%
   QC value within limits for Si 251.611  Recovery = 98.81%
Sn 189.927†               39.4      8.9914 ug/L       0.80152      8.9914 ppb        0.80152   8.91%
   QC value within limits for Sn 189.927  Recovery = 89.91%
Sr 421.552†              491.0      4.8678 ug/L       0.17769      4.8678 ppb        0.17769   3.65%
   QC value within limits for Sr 421.552  Recovery = 97.36%
Ti 334.940†             2990.0      5.0480 ug/L       0.15651      5.0480 ppb        0.15651   3.10%
   QC value within limits for Ti 334.940  Recovery = 100.96%
Tl 190.801†               52.8      20.553 ug/L        2.5387      20.553 ppb         2.5387  12.35%
   QC value within limits for Tl 190.801  Recovery = 102.76%
U 409.014†              1859.2      54.273 ug/L        0.8900      54.273 ppb         0.8900   1.64%
   QC value within limits for U 409.014  Recovery = 108.55%
V 292.402†               659.8      5.3832 ug/L       0.31964      5.3832 ppb        0.31964   5.94%
   QC value within limits for V 292.402  Recovery = 107.66%
Zn 213.857†              849.9      10.254 ug/L        0.0928      10.254 ppb         0.0928   0.91%
   QC value within limits for Zn 213.857  Recovery = 102.54%
SiO2†                   2742.4      215.16 ug/L         1.870      215.16 ppb          1.870   0.87%
   QC value within limits for SiO2  Recovery = 101.01%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/9/2010 15:15:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3025.4	3025.4	90.3	%			15:17:44
1	Y RADIAL	2470.0	2470.0	90.04	%			15:17:44
1	Al 396.153Radial†	218028.8	241514.8	519050	ug/L	519050	ppb	15:17:24
1	Ca 317.933Radial†	109722.7	121501.6	482190	ug/L	482190	ppb	15:17:24
1	Fe 238.204 Radial†	6078.5	6722.9	186870	ug/L	186870	ppb	15:17:44
1	K 766.490 Radial†	2106.1	218.0	-61.490	ug/L	-61.490	ppb	15:17:24
1	Mg 279.077 IEC†	4618.9	5114.7	496170	ug/L	496170	ppb	15:17:44
1	Na 589.592 Radial†	-615.0	101.5	33.905	ug/L	33.905	ppb	15:17:44
1	Sr 421.552†	364.8	368.3	0.0515	ug/L	0.0515	ppb	15:17:44
1	Sc 361.383	699563.9	699563.9	83.806	%			15:18:41
1	Y 371.029	586363.8	586363.8	81.933	%			15:18:41
1	Ag 328.068†	-8683.8	-10520.9	-1.8859	ug/L	-1.8859	ppb	15:18:41
1	As 188.979†	-68.4	-65.7	7.0918	ug/L	7.0918	ppb	15:19:01
1	B 249.677†	605.9	813.2	-7.5545	ug/L	-7.5545	ppb	15:18:41
1	Ba 233.527†	-413.7	-486.5	1.1819	ug/L	1.1819	ppb	15:19:01
1	Be 313.107†	-3756.0	-869.3	-0.4362	ug/L	-0.4362	ppb	15:18:41
1	Cd 226.502†	1143.5	1506.0	2.4794	ug/L	2.4794	ppb	15:19:01
1	Co 228.616†	7.8	52.8	-1.3235	ug/L	-1.3235	ppb	15:19:01
1	Cr 267.716†	-740.1	-948.8	-4.7011	ug/L	-4.7011	ppb	15:19:01
1	Cu 324.752†	3744.2	-1602.7	4.7085	ug/L	4.7085	ppb	15:19:01
1	Mn 257.610†	679.1	420.7	-1.2878	ug/L	-1.2878	ppb	15:18:41
1	Mo 202.031†	-214.6	-269.8	-3.0448	ug/L	-3.0448	ppb	15:19:01
1	Ni 231.604†	160.7	138.8	4.3728	ug/L	4.3728	ppb	15:19:01
1	P 214.914†	140.9	-7.3	-26.393	ug/L	-26.393	ppb	15:19:01
1	Pb 220.353†	-588.3	-658.0	-6.9432	ug/L	-6.9432	ppb	15:19:01
1	S 181.975 Axial†	52.0	31.2	-41.688	ug/L	-41.688	ppb	15:19:01
1	Sb 206.836†	42.1	21.8	-8.6983	ug/L	-8.6983	ppb	15:19:01
1	Se 196.026†	-696.0	-811.2	1.5015	ug/L	1.5015	ppb	15:19:01
1	Si 251.611†	386.0	8.2	0.5922	ug/L	0.5922	ppb	15:19:01
1	Sn 189.927†	-307.3	-374.6	-10.177	ug/L	-10.177	ppb	15:19:01
1	Ti 334.940†	-14062.6	-15819.7	-2.7707	ug/L	-2.7707	ppb	15:18:41
1	Tl 190.801†	-48.3	-26.5	-10.556	ug/L	-10.556	ppb	15:19:01
1	U 409.014†	-407.1	1517.4	23.036	ug/L	23.036	ppb	15:18:41
1	V 292.402†	904.2	2325.7	0.3141	ug/L	0.3141	ppb	15:19:01
1	Zn 213.857†	2503.1	2484.3	2.1576	ug/L	2.1576	ppb	15:19:01
1	SiO2†	402.9	2.3	0.8141	ug/L	0.8141	ppb	15:19:58
2	Sc Radial	3027.3	3027.3	90.4	%			15:18:09
2	Y RADIAL	2479.7	2479.7	90.39	%			15:18:09
2	Al 396.153Radial†	219072.5	242513.6	521200	ug/L	521200	ppb	15:17:49
2	Ca 317.933Radial†	109814.6	121524.7	482280	ug/L	482280	ppb	15:17:49
2	Fe 238.204 Radial†	6090.5	6731.9	187120	ug/L	187120	ppb	15:18:09
2	K 766.490 Radial†	2042.9	146.5	-94.272	ug/L	-94.272	ppb	15:17:49
2	Mg 279.077 IEC†	4630.8	5124.6	497130	ug/L	497130	ppb	15:18:09
2	Na 589.592 Radial†	-615.3	101.6	33.935	ug/L	33.935	ppb	15:18:09
2	Sr 421.552†	370.1	373.9	0.1061	ug/L	0.1061	ppb	15:18:09
2	Sc 361.383	703205.6	703205.6	84.242	%			15:19:07
2	Y 371.029	590659.4	590659.4	82.533	%			15:19:07
2	Ag 328.068†	-8675.8	-10457.7	-1.4951	ug/L	-1.4951	ppb	15:19:07
2	As 188.979†	-71.5	-69.0	5.3103	ug/L	5.3103	ppb	15:19:27
2	B 249.677†	603.5	806.6	-7.7823	ug/L	-7.7823	ppb	15:19:07
2	Ba 233.527†	-423.0	-494.9	1.1101	ug/L	1.1101	ppb	15:19:27
2	Be 313.107†	-3822.6	-925.1	-0.4596	ug/L	-0.4596	ppb	15:19:07
2	Cd 226.502†	1128.2	1480.8	2.0896	ug/L	2.0896	ppb	15:19:27
2	Co 228.616†	26.3	74.8	-0.7516	ug/L	-0.7516	ppb	15:19:27
2	Cr 267.716†	-736.3	-939.8	-4.5748	ug/L	-4.5748	ppb	15:19:27
2	Cu 324.752†	3737.1	-1634.2	4.6177	ug/L	4.6177	ppb	15:19:27
2	Mn 257.610†	659.2	392.8	-1.3386	ug/L	-1.3386	ppb	15:19:07
2	Mo 202.031†	-191.0	-240.5	-0.4938	ug/L	-0.4938	ppb	15:19:27
2	Ni 231.604†	161.2	138.3	4.3572	ug/L	4.3572	ppb	15:19:27

2	P 214.914†	144.9	-3.4	-23.095	ug/L	-23.095 ppb	15:19:27
2	Pb 220.353†	-561.7	-622.8	-1.0468	ug/L	-1.0468 ppb	15:19:27
2	S 181.975 Axial†	43.9	21.3	-59.714	ug/L	-59.714 ppb	15:19:27
2	Sb 206.836†	56.9	39.0	-1.5470	ug/L	-1.5470 ppb	15:19:27
2	Se 196.026†	-703.2	-815.5	-0.6808	ug/L	-0.6808 ppb	15:19:27
2	Si 251.611†	384.8	4.4	0.4177	ug/L	0.4177 ppb	15:19:27
2	Sn 189.927†	-303.5	-368.1	-8.6987	ug/L	-8.6987 ppb	15:19:27
2	Ti 334.940†	-13993.8	-15651.1	-2.5520	ug/L	-2.5520 ppb	15:19:07
2	Tl 190.801†	-69.2	-51.1	-20.065	ug/L	-20.065 ppb	15:19:27
2	U 409.014†	-273.9	1678.1	27.700	ug/L	27.700 ppb	15:19:07
2	V 292.402†	886.3	2298.8	0.1310	ug/L	0.1310 ppb	15:19:27
2	Zn 213.857†	2513.8	2481.6	2.0872	ug/L	2.0872 ppb	15:19:27
2	SiO2†	403.1	0.0	0.5691	ug/L	0.5691 ppb	15:20:03
3	Sc Radial	3015.0	3015.0	90.0	%		15:18:35
3	Y RADIAL	2462.4	2462.4	89.76	%		15:18:35
3	Al 396.153Radial†	218899.7	243309.9	522910	ug/L	522910 ppb	15:18:15
3	Ca 317.933Radial†	109667.3	121856.4	483600	ug/L	483600 ppb	15:18:15
3	Fe 238.204 Radial†	6100.0	6769.9	188170	ug/L	188170 ppb	15:18:35
3	K 766.490 Radial†	2123.9	245.7	-49.277	ug/L	-49.277 ppb	15:18:15
3	Mg 279.077 IEC†	4622.1	5135.8	498220	ug/L	498220 ppb	15:18:35
3	Na 589.592 Radial†	-634.1	77.9	26.023	ug/L	26.023 ppb	15:18:35
3	Sr 421.552†	364.3	369.2	0.0498	ug/L	0.0498 ppb	15:18:35
3	Sc 361.383	712257.8	712257.8	85.326	%		15:19:32
3	Y 371.029	596860.9	596860.9	83.400	%		15:19:32
3	Ag 328.068†	-8791.3	-10462.2	-1.2071	ug/L	-1.2071 ppb	15:19:32
3	As 188.979†	-84.8	-83.4	-2.4598	ug/L	-2.4598 ppb	15:19:52
3	B 249.677†	570.5	758.8	-9.2902	ug/L	-9.2902 ppb	15:19:32
3	Ba 233.527†	-441.0	-509.6	1.0050	ug/L	1.0050 ppb	15:19:52
3	Be 313.107†	-3844.2	-892.7	-0.4442	ug/L	-0.4442 ppb	15:19:32
3	Cd 226.502†	1108.1	1440.3	1.3941	ug/L	1.3941 ppb	15:19:52
3	Co 228.616†	2.6	46.7	-1.5044	ug/L	-1.5044 ppb	15:19:52
3	Cr 267.716†	-751.2	-946.2	-4.6142	ug/L	-4.6142 ppb	15:19:52
3	Cu 324.752†	3774.9	-1646.4	4.6357	ug/L	4.6357 ppb	15:19:52
3	Mn 257.610†	534.5	236.8	-1.4833	ug/L	-1.4833 ppb	15:19:32
3	Mo 202.031†	-217.9	-269.1	-2.8666	ug/L	-2.8666 ppb	15:19:52
3	Ni 231.604†	145.8	117.8	3.7132	ug/L	3.7132 ppb	15:19:52
3	P 214.914†	148.2	-1.7	-22.175	ug/L	-22.175 ppb	15:19:52
3	Pb 220.353†	-599.8	-659.0	-6.4130	ug/L	-6.4130 ppb	15:19:52
3	S 181.975 Axial†	44.1	20.8	-60.828	ug/L	-60.828 ppb	15:19:52
3	Sb 206.836†	54.3	35.2	-3.2686	ug/L	-3.2686 ppb	15:19:52
3	Se 196.026†	-716.1	-820.0	-0.9378	ug/L	-0.9378 ppb	15:19:52
3	Si 251.611†	461.6	88.6	3.5695	ug/L	3.5695 ppb	15:19:52
3	Sn 189.927†	-309.3	-370.3	-9.0303	ug/L	-9.0303 ppb	15:19:52
3	Ti 334.940†	-13849.5	-15271.0	-1.8171	ug/L	-1.8171 ppb	15:19:32
3	Tl 190.801†	-55.1	-33.6	-13.269	ug/L	-13.269 ppb	15:19:52
3	U 409.014†	-338.7	1606.2	25.479	ug/L	25.479 ppb	15:19:32
3	V 292.402†	897.1	2298.2	-0.0465	ug/L	-0.0465 ppb	15:19:52
3	Zn 213.857†	2498.4	2425.6	1.2548	ug/L	1.2548 ppb	15:19:52
3	SiO2†	398.8	-11.1	-0.2408	ug/L	-0.2408 ppb	15:20:08

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	705009.1	84.458	%	0.7830				0.93%
Sc Radial	3022.6	90.2	%	0.20				0.22%
Y 371.029	591294.7	82.622	%	0.7374				0.89%
Y RADIAL	2470.7	90.06	%	0.315				0.35%
Ag 328.068†	-10480.3	-1.5294	ug/L	0.34069	-1.5294	ppb	0.34069	22.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	242446.1	521060	ug/L	1933.0	521060	ppb	1933.0	0.37%
QC value within limits for Al 396.153Radial Recovery = 104.21%								
As 188.979†	-72.7	3.3141	ug/L	5.07904	3.3141	ppb	5.07904	153.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	792.9	-8.2090	ug/L	0.94326	-8.2090	ppb	0.94326	11.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-497.0	1.0990	ug/L	0.08898	1.0990	ppb	0.08898	8.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-895.7	-0.4467	ug/L	0.01191	-0.4467	ppb	0.01191	2.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	121627.6	482690	ug/L	787.9	482690	ppb	787.9	0.16%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.54%
Cd 226.502†            1475.7      1.9877 ug/L       0.54976      1.9877 ppb        0.54976  27.66%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              58.1     -1.1931 ug/L       0.39294     -1.1931 ppb        0.39294  32.93%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -944.9     -4.6300 ug/L       0.06465     -4.6300 ppb        0.06465   1.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -1627.8      4.6540 ug/L       0.04810      4.6540 ppb        0.04810   1.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     6741.6      187380 ug/L         693.3      187380 ppb          693.3   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.69%
K 766.490 Radial†       203.4     -68.346 ug/L       23.2677     -68.346 ppb        23.2677  34.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        5125.0      497170 ug/L        1021.4      497170 ppb         1021.4   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.43%
Mn 257.610†             350.1     -1.3699 ug/L       0.10143     -1.3699 ppb        0.10143   7.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -259.8     -2.1351 ug/L       1.42415     -2.1351 ppb        1.42415  66.70%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       93.7      31.288 ug/L        4.5592      31.288 ppb         4.5592  14.57%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             131.6      4.1477 ug/L       0.37643      4.1477 ppb        0.37643   9.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.1     -23.888 ug/L        2.2178     -23.888 ppb         2.2178   9.28%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -646.6     -4.8010 ug/L       3.26201     -4.8010 ppb        3.26201  67.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         24.4     -54.077 ug/L       10.7436     -54.077 ppb        10.7436  19.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              32.0     -4.5046 ug/L       3.73239     -4.5046 ppb        3.73239  82.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -815.6     -0.0390 ug/L       1.34029     -0.0390 ppb        1.34029 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              33.7      1.5265 ug/L       1.77144      1.5265 ppb        1.77144 116.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -371.0     -9.3020 ug/L       0.77572     -9.3020 ppb        0.77572   8.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             370.4      0.0692 ug/L       0.03205      0.0692 ppb        0.03205  46.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -15580.6     -2.3800 ug/L       0.49953     -2.3800 ppb        0.49953  20.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -37.1     -14.630 ug/L        4.8987     -14.630 ppb         4.8987  33.48%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1600.5      25.405 ug/L        2.3326      25.405 ppb         2.3326   9.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2307.5      0.1328 ug/L       0.18032      0.1328 ppb        0.18032 135.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2463.8      1.8332 ug/L       0.50217      1.8332 ppb        0.50217  27.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -2.9      0.3808 ug/L       0.55207      0.3808 ppb        0.55207 144.97%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/9/2010 15:22:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3029.8	3029.8	90.4	%			15:24:31
1	Y RADIAL	2482.3	2482.3	90.49	%			15:24:31
1	Al 396.153Radial†	221927.1	245467.4	527520	ug/L	527520	ppb	15:24:11
1	Ca 317.933Radial†	110442.3	122117.0	484630	ug/L	484630	ppb	15:24:11
1	Fe 238.204 Radial†	6143.3	6784.6	188590	ug/L	188590	ppb	15:24:31
1	K 766.490 Radial†	13763.6	13105.4	5834.3	ug/L	5834.3	ppb	15:24:11
1	Mg 279.077 IEC†	4652.0	5143.8	499000	ug/L	499000	ppb	15:24:31
1	Na 589.592 Radial†	13995.8	16259.2	5429.9	ug/L	5429.9	ppb	15:24:11
1	Sr 421.552†	47743.3	52758.9	519.54	ug/L	519.54	ppb	15:24:11
1	Sc 361.383	722492.1	722492.1	86.552	%			15:25:29
1	Y 371.029	603668.8	603668.8	84.351	%			15:25:29
1	Ag 328.068†	38305.1	44097.4	276.21	ug/L	276.21	ppb	15:25:29
1	As 188.979†	750.0	882.5	537.86	ug/L	537.86	ppb	15:25:49
1	B 249.677†	16870.3	19581.6	517.00	ug/L	517.00	ppb	15:25:29
1	Ba 233.527†	45657.9	52758.9	499.64	ug/L	499.64	ppb	15:25:29
1	Be 313.107†	493674.4	573988.6	248.82	ug/L	248.82	ppb	15:25:29
1	Cd 226.502†	28911.2	33544.6	465.82	ug/L	465.82	ppb	15:25:49
1	Co 228.616†	15100.1	17489.7	450.97	ug/L	450.97	ppb	15:25:49
1	Cr 267.716†	31534.0	36367.7	482.63	ug/L	482.63	ppb	15:25:29
1	Cu 324.752†	153880.1	171717.8	562.30	ug/L	562.30	ppb	15:25:29
1	Mn 257.610†	320561.8	369977.5	483.04	ug/L	483.04	ppb	15:25:29
1	Mo 202.031†	4769.6	5496.9	494.86	ug/L	494.86	ppb	15:25:49
1	Ni 231.604†	12519.0	14411.0	453.95	ug/L	453.95	ppb	15:25:49
1	P 214.914†	3067.4	3368.6	2432.2	ug/L	2432.2	ppb	15:25:49
1	Pb 220.353†	2002.4	2357.5	462.57	ug/L	462.57	ppb	15:25:49
1	S 181.975 Axial†	1332.6	1508.8	2592.2	ug/L	2592.2	ppb	15:25:49
1	Sb 206.836†	1193.4	1350.3	559.50	ug/L	559.50	ppb	15:25:49
1	Se 196.026†	2019.0	2351.9	2583.7	ug/L	2583.7	ppb	15:25:49
1	Si 251.611†	124254.9	143107.9	5300.4	ug/L	5300.4	ppb	15:25:29
1	Sn 189.927†	1560.9	1795.6	483.28	ug/L	483.28	ppb	15:25:49
1	Ti 334.940†	247681.8	287124.1	511.82	ug/L	511.82	ppb	15:25:29
1	Tl 190.801†	969.2	1150.9	449.80	ug/L	449.80	ppb	15:25:49
1	U 409.014†	14455.3	18704.4	523.65	ug/L	523.65	ppb	15:25:29
1	V 292.402†	57314.3	67465.9	515.89	ug/L	515.89	ppb	15:25:29
1	Zn 213.857†	38125.3	43546.3	496.50	ug/L	496.50	ppb	15:25:29
1	SiO2†	126073.5	145182.9	11392	ug/L	11392	ppb	15:26:46
2	Sc Radial	3046.6	3046.6	90.9	%			15:24:56
2	Y RADIAL	2480.8	2480.8	90.43	%			15:24:56
2	Al 396.153Radial†	222661.3	244928.7	526370	ug/L	526370	ppb	15:24:36
2	Ca 317.933Radial†	110701.0	121731.7	483100	ug/L	483100	ppb	15:24:36
2	Fe 238.204 Radial†	6175.8	6783.1	188550	ug/L	188550	ppb	15:24:56
2	K 766.490 Radial†	13749.3	13006.1	5789.4	ug/L	5789.4	ppb	15:24:36
2	Mg 279.077 IEC†	4683.2	5149.8	499590	ug/L	499590	ppb	15:24:56
2	Na 589.592 Radial†	14109.4	16299.2	5443.2	ug/L	5443.2	ppb	15:24:36
2	Sr 421.552†	47792.6	52523.5	517.22	ug/L	517.22	ppb	15:24:36
2	Sc 361.383	728727.2	728727.2	87.299	%			15:25:55
2	Y 371.029	609776.7	609776.7	85.204	%			15:25:55
2	Ag 328.068†	38694.8	44165.2	276.56	ug/L	276.56	ppb	15:25:55
2	As 188.979†	746.6	871.2	531.56	ug/L	531.56	ppb	15:26:15
2	B 249.677†	17083.2	19658.7	519.18	ug/L	519.18	ppb	15:25:55
2	Ba 233.527†	45774.1	52440.6	496.66	ug/L	496.66	ppb	15:25:55
2	Be 313.107†	497937.7	573991.8	248.82	ug/L	248.82	ppb	15:25:55
2	Cd 226.502†	28823.3	33158.2	460.23	ug/L	460.23	ppb	15:26:15
2	Co 228.616†	15086.9	17325.3	446.68	ug/L	446.68	ppb	15:26:15
2	Cr 267.716†	31687.8	36232.1	480.86	ug/L	480.86	ppb	15:25:55
2	Cu 324.752†	155583.7	172148.1	563.68	ug/L	563.68	ppb	15:25:55
2	Mn 257.610†	322534.6	369068.3	481.82	ug/L	481.82	ppb	15:25:55
2	Mo 202.031†	4711.8	5383.5	485.05	ug/L	485.05	ppb	15:26:15
2	Ni 231.604†	12443.0	14200.2	447.30	ug/L	447.30	ppb	15:26:15

2	P 214.914†	3041.1	3308.1	2385.8	ug/L	2385.8	ppb	15:26:15
2	Pb 220.353†	1995.3	2329.5	457.96	ug/L	457.96	ppb	15:26:15
2	S 181.975 Axial†	1342.7	1507.2	2589.7	ug/L	2589.7	ppb	15:26:15
2	Sb 206.836†	1219.0	1367.8	566.53	ug/L	566.53	ppb	15:26:15
2	Se 196.026†	2021.5	2334.9	2569.4	ug/L	2569.4	ppb	15:26:15
2	Si 251.611†	125334.2	143115.8	5300.8	ug/L	5300.8	ppb	15:25:55
2	Sn 189.927†	1564.3	1784.0	480.40	ug/L	480.40	ppb	15:26:15
2	Ti 334.940†	249407.7	286652.6	510.77	ug/L	510.77	ppb	15:25:55
2	Tl 190.801†	954.1	1124.0	439.39	ug/L	439.39	ppb	15:26:15
2	U 409.014†	14459.0	18565.7	519.61	ug/L	519.61	ppb	15:25:55
2	V 292.402†	57722.9	67367.4	514.99	ug/L	514.99	ppb	15:25:55
2	Zn 213.857†	38460.9	43553.8	496.64	ug/L	496.64	ppb	15:25:55
2	SiO2†	124799.7	142477.5	11180	ug/L	11180	ppb	15:26:52
3	Sc Radial	3053.7	3053.7	91.1	%			15:25:22
3	Y RADIAL	2488.3	2488.3	90.71	%			15:25:22
3	Al 396.153Radial†	224804.5	246706.2	530190	ug/L	530190	ppb	15:25:02
3	Ca 317.933Radial†	111417.1	122232.0	485090	ug/L	485090	ppb	15:25:02
3	Fe 238.204 Radial†	6212.9	6807.9	189240	ug/L	189240	ppb	15:25:22
3	K 766.490 Radial†	13967.5	13210.2	5882.1	ug/L	5882.1	ppb	15:25:02
3	Mg 279.077 IEC†	4705.0	5161.7	500730	ug/L	500730	ppb	15:25:22
3	Na 589.592 Radial†	14164.9	16323.8	5451.4	ug/L	5451.4	ppb	15:25:02
3	Sr 421.552†	48437.4	53107.9	523.00	ug/L	523.00	ppb	15:25:02
3	Sc 361.383	727771.0	727771.0	87.185	%			15:26:21
3	Y 371.029	609176.4	609176.4	85.120	%			15:26:21
3	Ag 328.068†	38625.9	44144.4	276.64	ug/L	276.64	ppb	15:26:21
3	As 188.979†	735.7	859.8	525.41	ug/L	525.41	ppb	15:26:41
3	B 249.677†	17142.6	19752.6	521.70	ug/L	521.70	ppb	15:26:21
3	Ba 233.527†	46005.4	52774.8	499.81	ug/L	499.81	ppb	15:26:21
3	Be 313.107†	500171.6	577303.6	250.26	ug/L	250.26	ppb	15:26:21
3	Cd 226.502†	28784.1	33156.6	460.14	ug/L	460.14	ppb	15:26:41
3	Co 228.616†	15043.5	17298.3	445.98	ug/L	445.98	ppb	15:26:41
3	Cr 267.716†	31848.9	36464.6	483.92	ug/L	483.92	ppb	15:26:21
3	Cu 324.752†	155476.0	172258.7	564.07	ug/L	564.07	ppb	15:26:21
3	Mn 257.610†	323642.7	370824.8	484.14	ug/L	484.14	ppb	15:26:21
3	Mo 202.031†	4731.1	5412.8	487.66	ug/L	487.66	ppb	15:26:41
3	Ni 231.604†	12471.3	14251.4	448.92	ug/L	448.92	ppb	15:26:41
3	P 214.914†	3032.0	3302.3	2381.7	ug/L	2381.7	ppb	15:26:41
3	Pb 220.353†	2027.0	2368.8	464.82	ug/L	464.82	ppb	15:26:41
3	S 181.975 Axial†	1335.4	1500.9	2577.6	ug/L	2577.6	ppb	15:26:41
3	Sb 206.836†	1197.7	1345.3	557.15	ug/L	557.15	ppb	15:26:41
3	Se 196.026†	2004.1	2317.9	2558.6	ug/L	2558.6	ppb	15:26:41
3	Si 251.611†	125546.7	143548.2	5316.8	ug/L	5316.8	ppb	15:26:21
3	Sn 189.927†	1565.3	1787.6	481.51	ug/L	481.51	ppb	15:26:41
3	Ti 334.940†	250069.2	287786.8	512.86	ug/L	512.86	ppb	15:26:21
3	Tl 190.801†	977.8	1152.6	450.49	ug/L	450.49	ppb	15:26:41
3	U 409.014†	14683.1	18844.5	527.67	ug/L	527.67	ppb	15:26:21
3	V 292.402†	57848.6	67598.5	516.77	ug/L	516.77	ppb	15:26:21
3	Zn 213.857†	38622.5	43797.1	499.48	ug/L	499.48	ppb	15:26:21
3	SiO2†	126207.2	144279.8	11321	ug/L	11321	ppb	15:26:57

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	726330.1	87.012	%	0.4023				0.46%
Sc Radial	3043.4	90.8	%	0.37				0.40%
Y 371.029	607540.6	84.892	%	0.4704				0.55%
Y RADIAL	2483.8	90.54	%	0.145				0.16%
Ag 328.068†	44135.7	276.47	ug/L	0.229	276.47	ppb	0.229	0.08%
QC value within limits for Ag 328.068 Recovery = 110.59%								
Al 396.153Radial†	245700.8	528030	ug/L	1958.8	528030	ppb	1958.8	0.37%
QC value within limits for Al 396.153Radial Recovery = 105.61%								
As 188.979†	871.2	531.61	ug/L	6.225	531.61	ppb	6.225	1.17%
QC value within limits for As 188.979 Recovery = 106.32%								
B 249.677†	19664.3	519.29	ug/L	2.354	519.29	ppb	2.354	0.45%
QC value within limits for B 249.677 Recovery = 103.86%								
Ba 233.527†	52658.1	498.70	ug/L	1.769	498.70	ppb	1.769	0.35%
QC value within limits for Ba 233.527 Recovery = 99.74%								
Be 313.107†	575094.7	249.30	ug/L	0.828	249.30	ppb	0.828	0.33%
QC value within limits for Be 313.107 Recovery = 99.72%								
Ca 317.933Radial†	122026.9	484270	ug/L	1039.9	484270	ppb	1039.9	0.21%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.85%
Cd 226.502†            33286.5      462.06 ug/L         3.252      462.06 ppb          3.252   0.70%
   QC value within limits for Cd 226.502  Recovery = 92.41%
Co 228.616†            17371.1      447.88 ug/L         2.701      447.88 ppb          2.701   0.60%
   QC value within limits for Co 228.616  Recovery = 89.58%
Cr 267.716†            36354.8      482.47 ug/L         1.536      482.47 ppb          1.536   0.32%
   QC value within limits for Cr 267.716  Recovery = 96.49%
Cu 324.752†           172041.5      563.35 ug/L         0.932      563.35 ppb          0.932   0.17%
   QC value within limits for Cu 324.752  Recovery = 112.67%
Fe 238.204 Radial†      6791.9      188800 ug/L         385.8      188800 ppb          385.8   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.40%
K 766.490 Radial†      13107.2      5835.3 ug/L         46.37      5835.3 ppb          46.37   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 116.71%
Mg 279.077 IEC†         5151.8      499770 ug/L         883.6      499770 ppb          883.6   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.95%
Mn 257.610†           369956.9      483.00 ug/L         1.162      483.00 ppb          1.162   0.24%
   QC value within limits for Mn 257.610  Recovery = 96.60%
Mo 202.031†             5431.1      489.19 ug/L         5.081      489.19 ppb          5.081   1.04%
   QC value within limits for Mo 202.031  Recovery = 97.84%
Na 589.592 Radial†     16294.1      5441.5 ug/L         10.89      5441.5 ppb          10.89   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 108.83%
Ni 231.604†            14287.5      450.06 ug/L         3.464      450.06 ppb          3.464   0.77%
   QC value within limits for Ni 231.604  Recovery = 90.01%
P 214.914†              3326.3      2399.9 ug/L         28.09      2399.9 ppb          28.09   1.17%
   QC value within limits for P 214.914  Recovery = 96.00%
Pb 220.353†             2351.9      461.78 ug/L         3.502      461.78 ppb          3.502   0.76%
   QC value within limits for Pb 220.353  Recovery = 92.36%
S 181.975 Axial†        1505.6      2586.5 ug/L          7.82      2586.5 ppb           7.82   0.30%
   QC value within limits for S 181.975 Axial  Recovery = 103.46%
Sb 206.836†             1354.5      561.06 ug/L         4.880      561.06 ppb          4.880   0.87%
   QC value within limits for Sb 206.836  Recovery = 112.21%
Se 196.026†             2334.9      2570.6 ug/L         12.61      2570.6 ppb          12.61   0.49%
   QC value within limits for Se 196.026  Recovery = 102.82%
Si 251.611†           143257.3      5306.0 ug/L          9.36      5306.0 ppb           9.36   0.18%
   QC value within limits for Si 251.611  Recovery = 106.12%
Sn 189.927†             1789.1      481.73 ug/L         1.455      481.73 ppb          1.455   0.30%
   QC value within limits for Sn 189.927  Recovery = 96.35%
Sr 421.552†            52796.8      519.92 ug/L         2.908      519.92 ppb          2.908   0.56%
   QC value within limits for Sr 421.552  Recovery = 103.98%
Ti 334.940†           287187.8      511.82 ug/L         1.048      511.82 ppb          1.048   0.20%
   QC value within limits for Ti 334.940  Recovery = 102.36%
Tl 190.801†             1142.5      446.56 ug/L         6.219      446.56 ppb          6.219   1.39%
   QC value within limits for Tl 190.801  Recovery = 89.31%
U 409.014†             18704.9      523.64 ug/L         4.028      523.64 ppb          4.028   0.77%
   QC value within limits for U 409.014  Recovery = 104.73%
V 292.402†             67477.3      515.88 ug/L         0.887      515.88 ppb          0.887   0.17%
   QC value within limits for V 292.402  Recovery = 103.18%
Zn 213.857†            43632.4      497.54 ug/L         1.680      497.54 ppb          1.680   0.34%
   QC value within limits for Zn 213.857  Recovery = 99.51%
SiO2†                 143980.1       11297 ug/L         108.1       11297 ppb          108.1   0.96%
   QC value within limits for SiO2  Recovery = 105.63%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/9/2010 15:29:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	2852.3	2852.3	85.1	%			15:31:20
1	Y RADIAL	2350.4	2350.4	85.68	%			15:31:20
1	Al 396.153Radial†	212057.4	249146.6	535460	ug/L	535460	ppb	15:31:00
1	Ca 317.933Radial†	106617.9	125225.1	496970	ug/L	496970	ppb	15:31:00
1	Fe 238.204 Radial†	14268.0	16750.9	465600	ug/L	465600	ppb	15:31:20
1	K 766.490 Radial†	2385.9	688.1	-55.383	ug/L	-55.383	ppb	15:31:00
1	Mg 279.077 IEC†	4599.5	5402.2	523780	ug/L	523780	ppb	15:31:20
1	Na 589.592 Radial†	1333848.2	1567545.8	523490	ug/L	523490	ppb	15:31:00
1	Sr 421.552†	1149.8	1314.9	9.3281	ug/L	9.3281	ppb	15:31:20
1	Sc 361.383	700613.5	700613.5	83.931	%			15:32:18
1	Y 371.029	588746.5	588746.5	82.266	%			15:32:18
1	Ag 328.068†	-19905.1	-23875.0	4.1906	ug/L	4.1906	ppb	15:32:18
1	As 188.979†	-160.7	-175.5	11.424	ug/L	11.424	ppb	15:32:39
1	B 249.677†	1653.4	2060.2	-17.879	ug/L	-17.879	ppb	15:32:18
1	Ba 233.527†	-1252.2	-1484.8	0.3633	ug/L	0.3633	ppb	15:32:39
1	Be 313.107†	-9893.2	-8174.7	-3.5773	ug/L	-3.5773	ppb	15:32:18
1	Cd 226.502†	2821.5	3503.3	5.5419	ug/L	5.5419	ppb	15:32:39
1	Co 228.616†	195.6	276.7	0.3951	ug/L	0.3951	ppb	15:32:39
1	Cr 267.716†	-592.5	-771.6	2.9937	ug/L	2.9937	ppb	15:32:39
1	Cu 324.752†	1481.4	-4305.5	2.2905	ug/L	2.2905	ppb	15:32:18
1	Mn 257.610†	-17306.1	-21009.0	-2.9813	ug/L	-2.9813	ppb	15:32:18
1	Mo 202.031†	-399.2	-489.4	-0.1878	ug/L	-0.1878	ppb	15:32:39
1	Ni 231.604†	220.4	209.5	6.5992	ug/L	6.5992	ppb	15:32:39
1	P 214.914†	458.1	370.4	41.678	ug/L	41.678	ppb	15:32:39
1	Pb 220.353†	-384.5	-414.2	-5.0621	ug/L	-5.0621	ppb	15:32:39
1	S 181.975 Axial†	57.6	37.8	-32.928	ug/L	-32.928	ppb	15:32:39
1	Sb 206.836†	50.1	31.3	-8.8069	ug/L	-8.8069	ppb	15:32:39
1	Se 196.026†	-1635.9	-1929.8	-134.72	ug/L	-134.72	ppb	15:32:39
1	Si 251.611†	-434.5	-970.1	-35.450	ug/L	-35.450	ppb	15:32:39
1	Sn 189.927†	-333.9	-405.7	-30.618	ug/L	-30.618	ppb	15:32:39
1	Ti 334.940†	-11535.0	-12783.2	-4.6288	ug/L	-4.6288	ppb	15:32:18
1	Tl 190.801†	-84.0	-69.0	-27.176	ug/L	-27.176	ppb	15:32:39
1	U 409.014†	439494.9	525638.7	15297	ug/L	15297	ppb	15:32:18
1	V 292.402†	2091.6	3738.8	0.3069	ug/L	0.3069	ppb	15:32:39
1	Zn 213.857†	4561.0	4931.8	-9.8603	ug/L	-9.8603	ppb	15:32:39
1	SiO2†	-535.5	-1116.5	-86.552	ug/L	-86.552	ppb	15:33:35
2	Sc Radial	2931.5	2931.5	87.5	%			15:31:46
2	Y RADIAL	2419.3	2419.3	88.19	%			15:31:46
2	Al 396.153Radial†	216750.6	247782.8	532530	ug/L	532530	ppb	15:31:26
2	Ca 317.933Radial†	108104.2	123541.3	490280	ug/L	490280	ppb	15:31:26
2	Fe 238.204 Radial†	14066.4	16067.7	446610	ug/L	446610	ppb	15:31:46
2	K 766.490 Radial†	2365.0	588.5	-98.359	ug/L	-98.359	ppb	15:31:26
2	Mg 279.077 IEC†	4534.8	5182.4	502470	ug/L	502470	ppb	15:31:46
2	Na 589.592 Radial†	1368320.3	1564626.6	522520	ug/L	522520	ppb	15:31:26
2	Sr 421.552†	1139.2	1266.3	8.8960	ug/L	8.8960	ppb	15:31:46
2	Sc 361.383	698102.9	698102.9	83.631	%			15:32:44
2	Y 371.029	587207.1	587207.1	82.051	%			15:32:44
2	Ag 328.068†	-19865.4	-23912.8	-1.7498	ug/L	-1.7498	ppb	15:32:44
2	As 188.979†	-148.4	-161.5	14.740	ug/L	14.740	ppb	15:33:04
2	B 249.677†	1647.4	2060.1	-14.799	ug/L	-14.799	ppb	15:32:44
2	Ba 233.527†	-1245.5	-1482.1	-0.1902	ug/L	-0.1902	ppb	15:33:04
2	Be 313.107†	-9707.8	-7995.4	-3.5012	ug/L	-3.5012	ppb	15:32:44
2	Cd 226.502†	2815.3	3508.0	7.5622	ug/L	7.5622	ppb	15:33:04
2	Co 228.616†	206.9	290.9	1.0443	ug/L	1.0443	ppb	15:33:04
2	Cr 267.716†	-577.3	-756.0	2.4348	ug/L	2.4348	ppb	15:33:04
2	Cu 324.752†	1625.5	-4126.8	1.8835	ug/L	1.8835	ppb	15:32:44
2	Mn 257.610†	-17277.8	-21049.4	-4.0373	ug/L	-4.0373	ppb	15:32:44
2	Mo 202.031†	-383.6	-472.5	-0.2764	ug/L	-0.2764	ppb	15:33:04
2	Ni 231.604†	200.4	186.6	5.8771	ug/L	5.8771	ppb	15:33:04

2	P 214.914†	446.8	358.9	47.466	ug/L	47.466 ppb	15:33:04
2	Pb 220.353†	-387.1	-418.9	-3.8267	ug/L	-3.8267 ppb	15:33:04
2	S 181.975 Axial†	60.0	40.9	-26.856	ug/L	-26.856 ppb	15:33:04
2	Sb 206.836†	42.3	22.1	-12.246	ug/L	-12.246 ppb	15:33:04
2	Se 196.026†	-1646.6	-1949.7	-204.12	ug/L	-204.12 ppb	15:33:04
2	Si 251.611†	-463.6	-1006.7	-36.825	ug/L	-36.825 ppb	15:33:04
2	Sn 189.927†	-322.4	-393.3	-27.902	ug/L	-27.902 ppb	15:33:04
2	Ti 334.940†	-11796.5	-13145.2	-4.3798	ug/L	-4.3798 ppb	15:32:44
2	Tl 190.801†	-112.2	-103.1	-40.379	ug/L	-40.379 ppb	15:33:04
2	U 409.014†	436738.1	524225.5	15258	ug/L	15258 ppb	15:32:44
2	V 292.402†	2044.0	3690.8	2.2283	ug/L	2.2283 ppb	15:33:04
2	Zn 213.857†	4619.1	5020.7	-5.9359	ug/L	-5.9359 ppb	15:33:04
2	SiO2†	-424.3	-985.9	-76.332	ug/L	-76.332 ppb	15:33:41
3	Sc Radial	2962.5	2962.5	88.4	%		15:32:11
3	Y RADIAL	2437.0	2437.0	88.83	%		15:32:11
3	Al 396.153Radial†	215972.9	244312.0	525070	ug/L	525070 ppb	15:31:51
3	Ca 317.933Radial†	107656.8	121742.9	483150	ug/L	483150 ppb	15:31:51
3	Fe 238.204 Radial†	14125.2	15966.1	443780	ug/L	443780 ppb	15:32:11
3	K 766.490 Radial†	2272.0	455.0	-155.12	ug/L	-155.12 ppb	15:31:51
3	Mg 279.077 IEC†	4534.1	5127.3	497130	ug/L	497130 ppb	15:32:11
3	Na 589.592 Radial†	1369411.7	1549502.8	517470	ug/L	517470 ppb	15:31:51
3	Sr 421.552†	1159.5	1275.6	9.0415	ug/L	9.0415 ppb	15:32:11
3	Sc 361.383	702125.3	702125.3	84.113	%		15:33:10
3	Y 371.029	590473.9	590473.9	82.507	%		15:33:10
3	Ag 328.068†	-20001.9	-23939.0	-2.5893	ug/L	-2.5893 ppb	15:33:10
3	As 188.979†	-166.0	-181.4	3.0533	ug/L	3.0533 ppb	15:33:30
3	B 249.677†	1450.7	1814.9	-21.214	ug/L	-21.214 ppb	15:33:10
3	Ba 233.527†	-1320.6	-1562.8	-1.0282	ug/L	-1.0282 ppb	15:33:30
3	Be 313.107†	-9818.8	-8060.8	-3.5270	ug/L	-3.5270 ppb	15:33:10
3	Cd 226.502†	2805.0	3476.3	7.3818	ug/L	7.3818 ppb	15:33:30
3	Co 228.616†	201.7	283.4	0.8827	ug/L	0.8827 ppb	15:33:30
3	Cr 267.716†	-544.2	-712.8	2.9155	ug/L	2.9155 ppb	15:33:30
3	Cu 324.752†	1566.8	-4207.7	1.5176	ug/L	1.5176 ppb	15:33:10
3	Mn 257.610†	-17392.4	-21067.3	-4.1210	ug/L	-4.1210 ppb	15:33:10
3	Mo 202.031†	-398.3	-487.3	-1.8585	ug/L	-1.8585 ppb	15:33:30
3	Ni 231.604†	227.9	217.9	6.8641	ug/L	6.8641 ppb	15:33:30
3	P 214.914†	459.2	370.6	56.817	ug/L	56.817 ppb	15:33:30
3	Pb 220.353†	-415.8	-450.4	-10.057	ug/L	-10.057 ppb	15:33:30
3	S 181.975 Axial†	72.3	55.1	-0.1516	ug/L	-0.1516 ppb	15:33:30
3	Sb 206.836†	79.8	66.4	6.3709	ug/L	6.3709 ppb	15:33:30
3	Se 196.026†	-1654.6	-1947.9	-212.52	ug/L	-212.52 ppb	15:33:30
3	Si 251.611†	-408.3	-937.9	-34.257	ug/L	-34.257 ppb	15:33:30
3	Sn 189.927†	-313.1	-380.1	-26.007	ug/L	-26.007 ppb	15:33:30
3	Ti 334.940†	-11319.6	-12497.4	-3.7648	ug/L	-3.7648 ppb	15:33:10
3	Tl 190.801†	-100.8	-88.8	-34.837	ug/L	-34.837 ppb	15:33:30
3	U 409.014†	436969.7	521509.0	15179	ug/L	15179 ppb	15:33:10
3	V 292.402†	2167.9	3824.1	3.4056	ug/L	3.4056 ppb	15:33:30
3	Zn 213.857†	4613.5	4982.5	-5.9834	ug/L	-5.9834 ppb	15:33:30
3	SiO2†	-488.4	-1059.1	-82.048	ug/L	-82.048 ppb	15:33:46

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	700280.6	83.892	%	0.2434				0.29%
Sc Radial	2915.5	87.0	%	1.70				1.95%
Y 371.029	588809.2	82.274	%	0.2284				0.28%
Y RADIAL	2402.2	87.57	%	1.667				1.90%
Ag 328.068†	-23908.9	-0.0495	ug/L	3.69590	-0.0495	ppb	3.69590	>999.9%
Al 396.153Radial†	247080.5	531020	ug/L	5357.1	531020	ppb	5357.1	1.01%
QC value within limits for Al 396.153Radial Recovery = 106.20%								
As 188.979†	-172.8	9.7391	ug/L	6.02276	9.7391	ppb	6.02276	61.84%
B 249.677†	1978.4	-17.964	ug/L	3.2086	-17.964	ppb	3.2086	17.86%
Ba 233.527†	-1509.9	-0.2850	ug/L	0.70057	-0.2850	ppb	0.70057	245.78%
Be 313.107†	-8077.0	-3.5352	ug/L	0.03866	-3.5352	ppb	0.03866	1.09%
Ca 317.933Radial†	123503.1	490130	ug/L	6911.0	490130	ppb	6911.0	1.41%
QC value within limits for Ca 317.933Radial Recovery = 98.03%								
Cd 226.502†	3495.9	6.8286	ug/L	1.11801	6.8286	ppb	1.11801	16.37%
Co 228.616†	283.7	0.7740	ug/L	0.33795	0.7740	ppb	0.33795	43.66%
Cr 267.716†	-746.8	2.7813	ug/L	0.30262	2.7813	ppb	0.30262	10.88%
Cu 324.752†	-4213.3	1.8972	ug/L	0.38664	1.8972	ppb	0.38664	20.38%

Fe 238.204 Radial†	16261.6	452000	ug/L	11862.3	452000	ppb	11862.3	2.62%
QC value within limits for Fe 238.204 Radial Recovery = 90.40%								
K 766.490 Radial†	577.2	-102.95	ug/L	50.026	-102.95	ppb	50.026	48.59%
Mg 279.077 IEC†	5237.3	507790	ug/L	14103.8	507790	ppb	14103.8	2.78%
QC value within limits for Mg 279.077 IEC Recovery = 101.56%								
Mn 257.610†	-21041.9	-3.7132	ug/L	0.63522	-3.7132	ppb	0.63522	17.11%
Mo 202.031†	-483.1	-0.7742	ug/L	0.94003	-0.7742	ppb	0.94003	121.41%
Na 589.592 Radial†	1560558.4	521160	ug/L	3234.4	521160	ppb	3234.4	0.62%
QC value within limits for Na 589.592 Radial Recovery = 104.23%								
Ni 231.604†	204.7	6.4468	ug/L	0.51085	6.4468	ppb	0.51085	7.92%
P 214.914†	366.6	48.654	ug/L	7.6390	48.654	ppb	7.6390	15.70%
Pb 220.353†	-427.9	-6.3153	ug/L	3.29880	-6.3153	ppb	3.29880	52.24%
S 181.975 Axial†	44.6	-19.978	ug/L	17.4368	-19.978	ppb	17.4368	87.28%
Sb 206.836†	39.9	-4.8940	ug/L	9.90604	-4.8940	ppb	9.90604	202.41%
Se 196.026†	-1942.5	-183.79	ug/L	42.696	-183.79	ppb	42.696	23.23%
Si 251.611†	-971.6	-35.511	ug/L	1.2849	-35.511	ppb	1.2849	3.62%
Sn 189.927†	-393.0	-28.176	ug/L	2.3176	-28.176	ppb	2.3176	8.23%
Sr 421.552†	1285.6	9.0885	ug/L	0.21989	9.0885	ppb	0.21989	2.42%
Ti 334.940†	-12808.6	-4.2578	ug/L	0.44472	-4.2578	ppb	0.44472	10.44%
Tl 190.801†	-87.0	-34.131	ug/L	6.6295	-34.131	ppb	6.6295	19.42%
U 409.014†	523791.1	15244	ug/L	60.2	15244	ppb	60.2	0.39%
QC value within limits for U 409.014 Recovery = 101.63%								
V 292.402†	3751.2	1.9803	ug/L	1.56416	1.9803	ppb	1.56416	78.99%
Zn 213.857†	4978.3	-7.2599	ug/L	2.25215	-7.2599	ppb	2.25215	31.02%
SiO2†	-1053.8	-81.644	ug/L	5.1219	-81.644	ppb	5.1219	6.27%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/9/2010 15:35:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3214.4	3214.4	95.9	%			15:38:14
1	Y RADIAL	2614.4	2614.4	95.30	%			15:38:14
1	Al 396.153Radial†	152.4	218.9	-0.5677	ug/L	-0.5677	ppb	15:38:14
1	Ca 317.933Radial†	16.2	6.7	26.510	ug/L	26.510	ppb	15:38:14
1	Fe 238.204 Radial†	0.1	-8.5	60.623	ug/L	60.623	ppb	15:38:14
1	K 766.490 Radial†	662207.6	688121.5	314990	ug/L	314990	ppb	15:37:49
1	Mg 279.077 IEC†	0.0	-0.4	59.506	ug/L	59.506	ppb	15:38:14
1	Na 589.592 Radial†	55.0	840.0	280.51	ug/L	280.51	ppb	15:37:54
1	Sr 421.552†	985873.9	1027566.0	10189	ug/L	10189	ppb	15:37:49
1	Sc 361.383	803731.5	803731.5	96.285	%			15:39:31
1	Y 371.029	673678.0	673678.0	94.133	%			15:39:31
1	Ag 328.068†	-6915.6	-7341.5	4.2903	ug/L	4.2903	ppb	15:39:36
1	As 188.979†	17099.4	17775.2	9943.5	ug/L	9943.5	ppb	15:39:36
1	B 249.677†	176686.5	183594.5	5118.3	ug/L	5118.3	ppb	15:39:31
1	Ba 233.527†	1379597.6	1432839.0	13404	ug/L	13404	ppb	15:39:31
1	Be 313.107†	6465916.4	6719028.0	2922.1	ug/L	2922.1	ppb	15:39:24
1	Cd 226.502†	659596.6	685189.9	9911.1	ug/L	9911.1	ppb	15:39:31
1	Co 228.616†	367865.3	382103.6	9907.0	ug/L	9907.0	ppb	15:39:31
1	Cr 267.716†	1815544.1	1885534.4	24609	ug/L	24609	ppb	15:39:31
1	Cu 324.752†	6087239.8	6316056.5	20326	ug/L	20326	ppb	15:39:24
1	Mn 257.610†	6984095.3	7253199.5	9504.7	ug/L	9504.7	ppb	15:39:24
1	Mo 202.031†	108361.8	112529.3	9712.8	ug/L	9712.8	ppb	15:39:36
1	Ni 231.604†	309023.5	320894.7	10108	ug/L	10108	ppb	15:39:31
1	P 214.914†	23818.1	24561.8	14715	ug/L	14715	ppb	15:39:36
1	Pb 220.353†	152998.6	158946.3	24625	ug/L	24625	ppb	15:39:31
1	S 181.975 Axial†	28173.8	29230.1	52135	ug/L	52135	ppb	15:39:36
1	Sb 206.836†	24689.1	25613.3	10977	ug/L	10977	ppb	15:39:36
1	Se 196.026†	12016.4	12499.3	10199	ug/L	10199	ppb	15:39:36
1	Si 251.611†	1245456.1	1293061.8	47825	ug/L	47825	ppb	15:39:31
1	Sn 189.927†	43663.3	45340.3	10303	ug/L	10303	ppb	15:39:36
1	Ti 334.940†	5586443.8	5802967.1	9853.9	ug/L	9853.9	ppb	15:39:24
1	Tl 190.801†	24068.5	25028.2	9772.8	ug/L	9772.8	ppb	15:39:36
1	U 409.014†	-1123.2	836.6	-30.582	ug/L	-30.582	ppb	15:39:31
1	V 292.402†	1263821.0	1313834.5	10374	ug/L	10374	ppb	15:39:31
1	Zn 213.857†	1140059.3	1183548.1	14269	ug/L	14269	ppb	15:39:31
1	SiO2†	1232242.4	1279312.3	100230	ug/L	100230	ppb	15:40:23
2	Sc Radial	3183.8	3183.8	95.0	%			15:38:44
2	Y RADIAL	2587.0	2587.0	94.30	%			15:38:44
2	Al 396.153Radial†	147.8	215.6	-7.2209	ug/L	-7.2209	ppb	15:38:44
2	Ca 317.933Radial†	15.5	6.1	24.149	ug/L	24.149	ppb	15:38:44
2	Fe 238.204 Radial†	0.2	-8.4	62.356	ug/L	62.356	ppb	15:38:44
2	K 766.490 Radial†	674234.5	707397.1	323810	ug/L	323810	ppb	15:38:19
2	Mg 279.077 IEC†	-2.9	-3.5	-236.85	ug/L	-236.85	ppb	15:38:44
2	Na 589.592 Radial†	-5.0	777.3	259.59	ug/L	259.59	ppb	15:38:24
2	Sr 421.552†	1006972.5	1059623.2	10507	ug/L	10507	ppb	15:38:19
2	Sc 361.383	812547.5	812547.5	97.341	%			15:39:51
2	Y 371.029	680964.0	680964.0	95.151	%			15:39:51
2	Ag 328.068†	-6988.2	-7338.1	4.3442	ug/L	4.3442	ppb	15:39:56
2	As 188.979†	17295.9	17784.3	9947.8	ug/L	9947.8	ppb	15:39:56
2	B 249.677†	179362.5	184352.6	5139.6	ug/L	5139.6	ppb	15:39:51
2	Ba 233.527†	1394281.6	1432378.2	13400	ug/L	13400	ppb	15:39:51
2	Be 313.107†	6490475.7	6671397.2	2901.3	ug/L	2901.3	ppb	15:39:44
2	Cd 226.502†	666427.7	684775.0	9905.1	ug/L	9905.1	ppb	15:39:51
2	Co 228.616†	372042.6	382249.8	9911.0	ug/L	9911.0	ppb	15:39:51
2	Cr 267.716†	1835102.5	1885168.7	24604	ug/L	24604	ppb	15:39:51
2	Cu 324.752†	6105360.0	6266077.8	20165	ug/L	20165	ppb	15:39:44
2	Mn 257.610†	6992754.2	7183395.0	9413.2	ug/L	9413.2	ppb	15:39:44
2	Mo 202.031†	109423.4	112398.9	9701.5	ug/L	9701.5	ppb	15:39:56
2	Ni 231.604†	312431.4	320913.5	10109	ug/L	10109	ppb	15:39:51

2	P 214.914†	24048.0	24529.6	14722	ug/L	14722	ppb	15:39:56
2	Pb 220.353†	154556.3	158822.4	24606	ug/L	24606	ppb	15:39:51
2	S 181.975 Axial†	28398.4	29143.3	51980	ug/L	51980	ppb	15:39:56
2	Sb 206.836†	24899.2	25550.9	10951	ug/L	10951	ppb	15:39:56
2	Se 196.026†	12145.6	12496.6	10197	ug/L	10197	ppb	15:39:56
2	Si 251.611†	1262975.8	1297025.8	47972	ug/L	47972	ppb	15:39:51
2	Sn 189.927†	44023.0	45217.8	10275	ug/L	10275	ppb	15:39:56
2	Ti 334.940†	5595481.2	5749300.7	9762.7	ug/L	9762.7	ppb	15:39:44
2	Tl 190.801†	24312.1	25007.3	9763.4	ug/L	9763.4	ppb	15:39:56
2	U 409.014†	-875.8	1103.5	-22.778	ug/L	-22.778	ppb	15:39:51
2	V 292.402†	1278993.8	1315180.5	10384	ug/L	10384	ppb	15:39:51
2	Zn 213.857†	1151836.5	1182800.3	14260	ug/L	14260	ppb	15:39:51
2	SiO2†	1231290.6	1264449.0	99063	ug/L	99063	ppb	15:40:29
3	Sc Radial	3165.3	3165.3	94.5	%			15:39:15
3	Y RADIAL	2581.6	2581.6	94.11	%			15:39:15
3	Al 396.153Radial†	143.6	212.0	-20.020	ug/L	-20.020	ppb	15:39:15
3	Ca 317.933Radial†	15.6	6.3	25.000	ug/L	25.000	ppb	15:39:15
3	Fe 238.204 Radial†	-2.6	-11.4	-20.431	ug/L	-20.431	ppb	15:39:15
3	K 766.490 Radial†	661637.5	698207.4	319600	ug/L	319600	ppb	15:38:50
3	Mg 279.077 IEC†	-1.7	-2.3	-115.61	ug/L	-115.61	ppb	15:39:15
3	Na 589.592 Radial†	-20.1	761.3	254.25	ug/L	254.25	ppb	15:38:55
3	Sr 421.552†	986763.6	1044421.7	10357	ug/L	10357	ppb	15:38:50
3	Sc 361.383	798510.1	798510.1	95.659	%			15:40:11
3	Y 371.029	669615.5	669615.5	93.566	%			15:40:11
3	Ag 328.068†	-7018.1	-7495.7	3.5509	ug/L	3.5509	ppb	15:40:16
3	As 188.979†	17181.3	17976.9	10057	ug/L	10057	ppb	15:40:16
3	B 249.677†	175542.7	183598.7	5118.4	ug/L	5118.4	ppb	15:40:11
3	Ba 233.527†	1372132.7	1434404.6	13419	ug/L	13419	ppb	15:40:11
3	Be 313.107†	6520675.4	6820183.7	2966.1	ug/L	2966.1	ppb	15:40:04
3	Cd 226.502†	656721.1	686663.4	9932.5	ug/L	9932.5	ppb	15:40:11
3	Co 228.616†	365895.8	382543.0	9918.3	ug/L	9918.3	ppb	15:40:11
3	Cr 267.716†	1808105.6	1890088.2	24668	ug/L	24668	ppb	15:40:11
3	Cu 324.752†	6148555.0	6421494.3	20665	ug/L	20665	ppb	15:40:04
3	Mn 257.610†	7022471.9	7340748.6	9619.4	ug/L	9619.4	ppb	15:40:04
3	Mo 202.031†	108703.4	113622.4	9807.1	ug/L	9807.1	ppb	15:40:16
3	Ni 231.604†	307728.6	321639.7	10132	ug/L	10132	ppb	15:40:11
3	P 214.914†	23842.8	24749.3	14791	ug/L	14791	ppb	15:40:16
3	Pb 220.353†	152474.9	159437.8	24701	ug/L	24701	ppb	15:40:11
3	S 181.975 Axial†	28166.0	29413.2	52462	ug/L	52462	ppb	15:40:16
3	Sb 206.836†	24712.6	25805.5	11059	ug/L	11059	ppb	15:40:16
3	Se 196.026†	12031.0	12596.1	10278	ug/L	10278	ppb	15:40:16
3	Si 251.611†	1236678.2	1292343.9	47797	ug/L	47797	ppb	15:40:11
3	Sn 189.927†	43745.6	45722.8	10390	ug/L	10390	ppb	15:40:16
3	Ti 334.940†	5626952.4	5883253.0	9990.4	ug/L	9990.4	ppb	15:40:04
3	Tl 190.801†	24114.5	25239.8	9856.4	ug/L	9856.4	ppb	15:40:16
3	U 409.014†	-1179.0	770.6	-32.631	ug/L	-32.631	ppb	15:40:11
3	V 292.402†	1257517.2	1315827.6	10391	ug/L	10391	ppb	15:40:11
3	Zn 213.857†	1135227.7	1186239.7	14301	ug/L	14301	ppb	15:40:11
3	SiO2†	1251674.5	1307994.6	102480	ug/L	102480	ppb	15:40:35

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	804929.7	96.428	%	0.8500				0.88%
Sc Radial	3187.8	95.1	%	0.74				0.78%
Y 371.029	674752.5	94.283	%	0.8035				0.85%
Y RADIAL	2594.3	94.57	%	0.641				0.68%
Ag 328.068†	-7391.8	4.0618	ug/L	0.44330	4.0618	ppb	0.44330	10.91%
Al 396.153Radial†	215.5	-9.2694	ug/L	9.88645	-9.2694	ppb	9.88645	106.66%
As 188.979†	17845.5	9982.6	ug/L	64.08	9982.6	ppb	64.08	0.64%
QC value within limits for As 188.979 Recovery = 99.83%								
B 249.677†	183848.6	5125.4	ug/L	12.24	5125.4	ppb	12.24	0.24%
QC value within limits for B 249.677 Recovery = 102.51%								
Ba 233.527†	1433207.3	13408	ug/L	9.9	13408	ppb	9.9	0.07%
QC value less than the lower limit for Ba 233.527 Recovery = 89.39%								
Be 313.107†	6736869.7	2929.8	ug/L	33.05	2929.8	ppb	33.05	1.13%
QC value within limits for Be 313.107 Recovery = 97.66%								
Ca 317.933Radial†	6.4	25.220	ug/L	1.1957	25.220	ppb	1.1957	4.74%
Cd 226.502†	685542.8	9916.2	ug/L	14.36	9916.2	ppb	14.36	0.14%
QC value within limits for Cd 226.502 Recovery = 99.16%								

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Co 228.616†          382298.8      9912.1 ug/L          5.74      9912.1 ppb          5.74   0.06%
   QC value within limits for Co 228.616  Recovery = 99.12%
Cr 267.716†         1886930.4       24627 ug/L         35.8       24627 ppb         35.8   0.15%
   QC value within limits for Cr 267.716  Recovery = 98.51%
Cu 324.752†         6334542.8       20386 ug/L        255.3       20386 ppb        255.3   1.25%
   QC value within limits for Cu 324.752  Recovery = 101.93%
Fe 238.204 Radial†       -9.4      34.183 ug/L      47.3042      34.183 ppb      47.3042 138.39%
K 766.490 Radial†    697908.7      319470 ug/L       4413.5      319470 ppb       4413.5   1.38%
   QC value within limits for K 766.490 Radial  Recovery = 106.49%
Mg 279.077 IEC†          -2.1     -97.650 ug/L     148.9913     -97.650 ppb     148.9913 152.58%
Mn 257.610†         7259114.4      9512.5 ug/L       103.31      9512.5 ppb       103.31   1.09%
   QC value within limits for Mn 257.610  Recovery = 95.12%
Mo 202.031†          112850.2      9740.5 ug/L        57.99      9740.5 ppb        57.99   0.60%
   QC value within limits for Mo 202.031  Recovery = 97.40%
Na 589.592 Radial†       792.9      264.78 ug/L       13.881      264.78 ppb       13.881   5.24%
Ni 231.604†          321149.3       10116 ug/L         13.4       10116 ppb         13.4   0.13%
   QC value within limits for Ni 231.604  Recovery = 101.16%
P 214.914†            24613.6       14743 ug/L         41.9       14743 ppb         41.9   0.28%
   QC value within limits for P 214.914  Recovery = 98.28%
Pb 220.353†          159068.8       24644 ug/L         50.4       24644 ppb         50.4   0.20%
   QC value within limits for Pb 220.353  Recovery = 98.57%
S 181.975 Axial†      29262.2       52193 ug/L        245.8       52193 ppb        245.8   0.47%
   QC value within limits for S 181.975 Axial  Recovery = 104.39%
Sb 206.836†           25656.6       10996 ug/L         56.7       10996 ppb         56.7   0.52%
   QC value within limits for Sb 206.836  Recovery = 109.96%
Se 196.026†           12530.7       10225 ug/L         46.2       10225 ppb         46.2   0.45%
   QC value within limits for Se 196.026  Recovery = 102.25%
Si 251.611†         1294143.8       47865 ug/L         94.0       47865 ppb         94.0   0.20%
   QC value within limits for Si 251.611  Recovery = 95.73%
Sn 189.927†           45427.0       10323 ug/L         59.9       10323 ppb         59.9   0.58%
   QC value within limits for Sn 189.927  Recovery = 103.23%
Sr 421.552†         1043870.3       10351 ug/L        159.0       10351 ppb        159.0   1.54%
   QC value within limits for Sr 421.552  Recovery = 103.51%
Ti 334.940†         5811840.3      9869.0 ug/L       114.57      9869.0 ppb       114.57   1.16%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†           25091.8      9797.6 ug/L        51.21      9797.6 ppb        51.21   0.52%
   QC value within limits for Tl 190.801  Recovery = 97.98%
U 409.014†              903.6     -28.663 ug/L       5.1992     -28.663 ppb       5.1992  18.14%
V 292.402†          1314947.6       10383 ug/L          8.5       10383 ppb          8.5   0.08%
   QC value within limits for V 292.402  Recovery = 103.83%
Zn 213.857†         1184196.0       14276 ug/L         21.5       14276 ppb         21.5   0.15%
   QC value within limits for Zn 213.857  Recovery = 95.18%
SiO2†               1283918.6      100590 ug/L       1737.3      100590 ppb       1737.3   1.73%
   QC value within limits for SiO2  Recovery = 94.01%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/9/2010 15:42:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3375.6	3375.6	101	%			15:44:57
1	Y RADIAL	2762.6	2762.6	100.7	%			15:44:57
1	Al 396.153Radial†	2343.1	2385.6	5103.2	ug/L	5103.2	ppb	15:44:37
1	Ca 317.933Radial†	1288.0	1268.1	5032.7	ug/L	5032.7	ppb	15:44:57
1	Fe 238.204 Radial†	198.8	188.7	5260.3	ug/L	5260.3	ppb	15:44:57
1	K 766.490 Radial†	13919.5	11701.0	5349.7	ug/L	5349.7	ppb	15:44:37
1	Mg 279.077 IEC†	56.5	55.6	5399.0	ug/L	5399.0	ppb	15:44:57
1	Na 589.592 Radial†	32003.5	32546.9	10869	ug/L	10869	ppb	15:44:37
1	Sr 421.552†	55188.1	54740.0	542.77	ug/L	542.77	ppb	15:44:37
1	Sc 361.383	868390.5	868390.5	104.03	%			15:45:54
1	Y 371.029	733834.6	733834.6	102.54	%			15:45:54
1	Ag 328.068†	101128.3	97051.1	493.46	ug/L	493.46	ppb	15:45:59
1	As 188.979†	940.0	919.5	515.39	ug/L	515.39	ppb	15:46:19
1	B 249.677†	19308.9	18651.0	520.55	ug/L	520.55	ppb	15:45:59
1	Ba 233.527†	54587.3	52479.5	491.37	ug/L	491.37	ppb	15:45:59
1	Be 313.107†	1189670.8	1147189.8	496.18	ug/L	496.18	ppb	15:45:54
1	Cd 226.502†	35331.8	34104.4	492.87	ug/L	492.87	ppb	15:45:59
1	Co 228.616†	20095.6	19360.6	502.18	ug/L	502.18	ppb	15:45:59
1	Cr 267.716†	39112.2	37531.1	490.25	ug/L	490.25	ppb	15:45:59
1	Cu 324.752†	164068.9	151641.6	488.01	ug/L	488.01	ppb	15:45:59
1	Mn 257.610†	392509.3	376912.0	494.21	ug/L	494.21	ppb	15:45:54
1	Mo 202.031†	5916.1	5673.1	490.13	ug/L	490.13	ppb	15:46:19
1	Ni 231.604†	16549.3	15855.1	499.43	ug/L	499.43	ppb	15:45:59
1	P 214.914†	3529.7	3217.6	2348.5	ug/L	2348.5	ppb	15:46:19
1	Pb 220.353†	3305.5	3221.3	500.20	ug/L	500.20	ppb	15:46:19
1	S 181.975 Axial†	614.4	559.8	997.48	ug/L	997.48	ppb	15:46:19
1	Sb 206.836†	1290.0	1211.6	519.73	ug/L	519.73	ppb	15:46:19
1	Se 196.026†	617.2	612.5	515.79	ug/L	515.79	ppb	15:46:19
1	Si 251.611†	69684.7	66532.4	2460.9	ug/L	2460.9	ppb	15:45:59
1	Sn 189.927†	2264.8	2169.3	493.52	ug/L	493.52	ppb	15:46:19
1	Ti 334.940†	293088.7	282693.3	480.31	ug/L	480.31	ppb	15:45:59
1	Tl 190.801†	1291.6	1272.7	496.88	ug/L	496.88	ppb	15:46:19
1	U 409.014†	15786.1	17177.7	499.94	ug/L	499.94	ppb	15:45:59
1	V 292.402†	63950.2	62719.2	496.13	ug/L	496.13	ppb	15:45:59
1	Zn 213.857†	43059.7	40888.9	491.50	ug/L	491.50	ppb	15:45:59
1	SiO2†	70290.1	67088.2	5256.7	ug/L	5256.7	ppb	15:47:27
2	Sc Radial	3352.3	3352.3	100	%			15:45:22
2	Y RADIAL	2751.9	2751.9	100.3	%			15:45:22
2	Al 396.153Radial†	2326.6	2385.3	5102.2	ug/L	5102.2	ppb	15:45:02
2	Ca 317.933Radial†	1279.5	1268.6	5034.5	ug/L	5034.5	ppb	15:45:22
2	Fe 238.204 Radial†	195.1	186.3	5194.4	ug/L	5194.4	ppb	15:45:22
2	K 766.490 Radial†	13698.4	11576.1	5292.5	ug/L	5292.5	ppb	15:45:02
2	Mg 279.077 IEC†	54.7	54.2	5262.7	ug/L	5262.7	ppb	15:45:22
2	Na 589.592 Radial†	31558.7	32323.2	10795	ug/L	10795	ppb	15:45:02
2	Sr 421.552†	54455.3	54388.3	539.28	ug/L	539.28	ppb	15:45:02
2	Sc 361.383	856086.5	856086.5	102.56	%			15:46:25
2	Y 371.029	723771.5	723771.5	101.13	%			15:46:25
2	Ag 328.068†	101156.1	98475.3	500.66	ug/L	500.66	ppb	15:46:30
2	As 188.979†	945.8	938.2	525.79	ug/L	525.79	ppb	15:46:50
2	B 249.677†	19168.9	18781.3	524.19	ug/L	524.19	ppb	15:46:30
2	Ba 233.527†	54729.9	53372.7	499.72	ug/L	499.72	ppb	15:46:30
2	Be 313.107†	1177652.1	1151906.7	498.23	ug/L	498.23	ppb	15:46:25
2	Cd 226.502†	35299.6	34561.2	499.48	ug/L	499.48	ppb	15:46:30
2	Co 228.616†	20071.4	19614.6	508.77	ug/L	508.77	ppb	15:46:30
2	Cr 267.716†	39189.5	38146.8	498.29	ug/L	498.29	ppb	15:46:30
2	Cu 324.752†	164087.8	153926.8	495.36	ug/L	495.36	ppb	15:46:30
2	Mn 257.610†	388168.9	378102.5	495.77	ug/L	495.77	ppb	15:46:25
2	Mo 202.031†	5918.4	5757.1	497.38	ug/L	497.38	ppb	15:46:50
2	Ni 231.604†	16582.6	16116.2	507.66	ug/L	507.66	ppb	15:46:30

2	P 214.914†	3544.4	3280.6	2395.1 ug/L	2395.1 ppb	15:46:50
2	Pb 220.353†	3292.3	3254.1	505.30 ug/L	505.30 ppb	15:46:50
2	S 181.975 Axial†	605.9	559.9	997.77 ug/L	997.77 ppb	15:46:50
2	Sb 206.836†	1291.3	1230.7	527.91 ug/L	527.91 ppb	15:46:50
2	Se 196.026†	612.4	616.4	518.75 ug/L	518.75 ppb	15:46:50
2	Si 251.611†	69462.9	67278.9	2488.5 ug/L	2488.5 ppb	15:46:30
2	Sn 189.927†	2269.7	2205.3	501.72 ug/L	501.72 ppb	15:46:50
2	Ti 334.940†	293263.7	286913.1	487.48 ug/L	487.48 ppb	15:46:30
2	Tl 190.801†	1282.6	1281.7	500.42 ug/L	500.42 ppb	15:46:50
2	U 409.014†	15866.3	17474.0	508.58 ug/L	508.58 ppb	15:46:30
2	V 292.402†	63953.0	63605.5	503.16 ug/L	503.16 ppb	15:46:30
2	Zn 213.857†	43041.8	41466.4	498.45 ug/L	498.45 ppb	15:46:30
2	SiO2†	69536.3	67324.3	5275.1 ug/L	5275.1 ppb	15:47:32
3	Sc Radial	3358.6	3358.6	100 %		15:45:47
3	Y RADIAL	2737.0	2737.0	99.77 %		15:45:47
3	Al 396.153Radial†	2333.3	2387.6	5107.3 ug/L	5107.3 ppb	15:45:27
3	Ca 317.933Radial†	1284.4	1271.1	5044.5 ug/L	5044.5 ppb	15:45:47
3	Fe 238.204 Radial†	196.8	187.7	5233.0 ug/L	5233.0 ppb	15:45:47
3	K 766.490 Radial†	13845.5	11697.5	5348.0 ug/L	5348.0 ppb	15:45:27
3	Mg 279.077 IEC†	53.1	52.5	5092.6 ug/L	5092.6 ppb	15:45:47
3	Na 589.592 Radial†	31848.5	32553.6	10871 ug/L	10871 ppb	15:45:27
3	Sr 421.552†	55031.3	54861.8	543.97 ug/L	543.97 ppb	15:45:27
3	Sc 361.383	848325.7	848325.7	101.63 %		15:46:56
3	Y 371.029	718766.6	718766.6	100.43 %		15:46:56
3	Ag 328.068†	100228.2	98464.6	500.62 ug/L	500.62 ppb	15:47:01
3	As 188.979†	934.1	935.1	524.10 ug/L	524.10 ppb	15:47:21
3	B 249.677†	18891.2	18679.0	521.32 ug/L	521.32 ppb	15:47:01
3	Ba 233.527†	54082.6	53224.0	498.34 ug/L	498.34 ppb	15:47:01
3	Be 313.107†	1171713.0	1156567.7	500.24 ug/L	500.24 ppb	15:46:56
3	Cd 226.502†	34959.1	34541.0	499.18 ug/L	499.18 ppb	15:47:01
3	Co 228.616†	19834.2	19560.2	507.36 ug/L	507.36 ppb	15:47:01
3	Cr 267.716†	38926.6	38237.7	499.48 ug/L	499.48 ppb	15:47:01
3	Cu 324.752†	162357.2	153687.6	494.59 ug/L	494.59 ppb	15:47:01
3	Mn 257.610†	385143.9	378588.5	496.42 ug/L	496.42 ppb	15:46:56
3	Mo 202.031†	5863.6	5756.0	497.28 ug/L	497.28 ppb	15:47:21
3	Ni 231.604†	16380.4	16065.2	506.05 ug/L	506.05 ppb	15:47:01
3	P 214.914†	3509.5	3278.0	2393.2 ug/L	2393.2 ppb	15:47:21
3	Pb 220.353†	3280.6	3272.0	508.07 ug/L	508.07 ppb	15:47:21
3	S 181.975 Axial†	607.1	566.5	1009.5 ug/L	1009.5 ppb	15:47:21
3	Sb 206.836†	1282.3	1233.3	528.96 ug/L	528.96 ppb	15:47:21
3	Se 196.026†	602.5	612.0	515.34 ug/L	515.34 ppb	15:47:21
3	Si 251.611†	68752.7	67199.7	2485.5 ug/L	2485.5 ppb	15:47:01
3	Sn 189.927†	2237.6	2193.9	499.13 ug/L	499.13 ppb	15:47:21
3	Ti 334.940†	290248.9	286562.6	486.90 ug/L	486.90 ppb	15:47:01
3	Tl 190.801†	1270.5	1281.2	500.23 ug/L	500.23 ppb	15:47:21
3	U 409.014†	15653.8	17406.3	506.60 ug/L	506.60 ppb	15:47:01
3	V 292.402†	63488.6	63718.9	504.04 ug/L	504.04 ppb	15:47:01
3	Zn 213.857†	42530.8	41347.5	497.01 ug/L	497.01 ppb	15:47:01
3	SiO2†	69109.7	67524.8	5290.8 ug/L	5290.8 ppb	15:47:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857600.9	102.74	%	1.212				1.18%
Sc Radial	3362.2	100	%	0.4				0.36%
Y 371.029	725457.6	101.37	%	1.072				1.06%
Y RADIAL	2750.5	100.3	%	0.47				0.47%
Ag 328.068†	97997.0	498.25	ug/L	4.144	498.25	ppb	4.144	0.83%
QC value within limits for Ag 328.068 Recovery = 99.65%								
Al 396.153Radial†	2386.2	5104.3	ug/L	2.69	5104.3	ppb	2.69	0.05%
QC value within limits for Al 396.153Radial Recovery = 102.09%								
As 188.979†	931.0	521.76	ug/L	5.579	521.76	ppb	5.579	1.07%
QC value within limits for As 188.979 Recovery = 104.35%								
B 249.677†	18703.7	522.02	ug/L	1.920	522.02	ppb	1.920	0.37%
QC value within limits for B 249.677 Recovery = 104.40%								
Ba 233.527†	53025.4	496.47	ug/L	4.478	496.47	ppb	4.478	0.90%
QC value within limits for Ba 233.527 Recovery = 99.29%								
Be 313.107†	1151888.1	498.22	ug/L	2.031	498.22	ppb	2.031	0.41%
QC value within limits for Be 313.107 Recovery = 99.64%								
Ca 317.933Radial†	1269.3	5037.2	ug/L	6.36	5037.2	ppb	6.36	0.13%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.74%
Cd 226.502†            34402.2      497.18 ug/L         3.737      497.18 ppb          3.737   0.75%
   QC value within limits for Cd 226.502  Recovery = 99.44%
Co 228.616†            19511.8      506.10 ug/L         3.471      506.10 ppb          3.471   0.69%
   QC value within limits for Co 228.616  Recovery = 101.22%
Cr 267.716†            37971.9      496.01 ug/L         5.017      496.01 ppb          5.017   1.01%
   QC value within limits for Cr 267.716  Recovery = 99.20%
Cu 324.752†           153085.3      492.65 ug/L         4.038      492.65 ppb          4.038   0.82%
   QC value within limits for Cu 324.752  Recovery = 98.53%
Fe 238.204 Radial†       187.6      5229.2 ug/L         33.12      5229.2 ppb          33.12   0.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.58%
K 766.490 Radial†      11658.2      5330.1 ug/L         32.55      5330.1 ppb          32.55   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 106.60%
Mg 279.077 IEC†           54.1      5251.4 ug/L        153.49      5251.4 ppb         153.49   2.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.03%
Mn 257.610†           377867.6      495.46 ug/L         1.134      495.46 ppb          1.134   0.23%
   QC value within limits for Mn 257.610  Recovery = 99.09%
Mo 202.031†             5728.7      494.93 ug/L         4.158      494.93 ppb          4.158   0.84%
   QC value within limits for Mo 202.031  Recovery = 98.99%
Na 589.592 Radial†     32474.6       10845 ug/L          43.8       10845 ppb           43.8   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 108.45%
Ni 231.604†            16012.1      504.38 ug/L         4.359      504.38 ppb          4.359   0.86%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†              3258.7      2378.9 ug/L         26.34      2378.9 ppb          26.34   1.11%
   QC value within limits for P 214.914  Recovery = 95.16%
Pb 220.353†             3249.2      504.53 ug/L         3.993      504.53 ppb          3.993   0.79%
   QC value within limits for Pb 220.353  Recovery = 100.91%
S 181.975 Axial†         562.1      1001.6 ug/L          6.87      1001.6 ppb           6.87   0.69%
   QC value within limits for S 181.975 Axial  Recovery = 100.16%
Sb 206.836†             1225.2      525.53 ug/L         5.057      525.53 ppb          5.057   0.96%
   QC value within limits for Sb 206.836  Recovery = 105.11%
Se 196.026†              613.7      516.63 ug/L         1.852      516.63 ppb          1.852   0.36%
   QC value within limits for Se 196.026  Recovery = 103.33%
Si 251.611†            67003.6      2478.3 ug/L         15.15      2478.3 ppb          15.15   0.61%
   QC value within limits for Si 251.611  Recovery = 99.13%
Sn 189.927†             2189.5      498.12 ug/L         4.190      498.12 ppb          4.190   0.84%
   QC value within limits for Sn 189.927  Recovery = 99.62%
Sr 421.552†            54663.4      542.01 ug/L         2.438      542.01 ppb          2.438   0.45%
   QC value within limits for Sr 421.552  Recovery = 108.40%
Ti 334.940†           285389.7      484.90 ug/L         3.987      484.90 ppb          3.987   0.82%
   QC value within limits for Ti 334.940  Recovery = 96.98%
Tl 190.801†             1278.5      499.17 ug/L         1.991      499.17 ppb          1.991   0.40%
   QC value within limits for Tl 190.801  Recovery = 99.83%
U 409.014†             17352.6      505.04 ug/L         4.527      505.04 ppb          4.527   0.90%
   QC value within limits for U 409.014  Recovery = 101.01%
V 292.402†             63347.9      501.11 ug/L         4.335      501.11 ppb          4.335   0.87%
   QC value within limits for V 292.402  Recovery = 100.22%
Zn 213.857†            41234.3      495.65 ug/L         3.671      495.65 ppb          3.671   0.74%
   QC value within limits for Zn 213.857  Recovery = 99.13%
SiO2†                  67312.4      5274.2 ug/L         17.07      5274.2 ppb          17.07   0.32%
   QC value within limits for SiO2  Recovery = 98.63%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/9/2010 15:49:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3353.9	3353.9	100	%			15:52:00
1	Y RADIAL	2748.3	2748.3	100.2	%			15:52:00
1	Al 396.153Radial†	-58.3	1.8	3.8130	ug/L	3.8130	ppb	15:52:00
1	Ca 317.933Radial†	9.7	-0.5	-2.0464	ug/L	-2.0464	ppb	15:52:00
1	Fe 238.204 Radial†	7.4	-1.2	-34.725	ug/L	-34.725	ppb	15:52:00
1	K 766.490 Radial†	2483.6	366.5	167.77	ug/L	167.77	ppb	15:51:40
1	Mg 279.077 IEC†	2.4	1.9	184.74	ug/L	184.74	ppb	15:52:00
1	Na 589.592 Radial†	-614.7	168.6	56.293	ug/L	56.293	ppb	15:51:40
1	Sr 421.552†	53.8	18.0	0.1787	ug/L	0.1787	ppb	15:51:40
1	Sc 361.383	835258.0	835258.0	100.06	%			15:52:57
1	Y 371.029	716457.5	716457.5	100.11	%			15:52:57
1	Ag 328.068†	214.5	55.3	0.2664	ug/L	0.2664	ppb	15:52:57
1	As 188.979†	-3.8	12.2	6.7567	ug/L	6.7567	ppb	15:53:17
1	B 249.677†	539.5	629.3	17.647	ug/L	17.647	ppb	15:53:17
1	Ba 233.527†	16.0	23.2	0.2160	ug/L	0.2160	ppb	15:53:17
1	Be 313.107†	-3553.8	60.9	0.0261	ug/L	0.0261	ppb	15:52:57
1	Cd 226.502†	-116.8	24.8	0.3631	ug/L	0.3631	ppb	15:53:17
1	Co 228.616†	-33.1	10.5	0.2745	ug/L	0.2745	ppb	15:53:17
1	Cr 267.716†	87.3	21.6	0.2786	ug/L	0.2786	ppb	15:53:17
1	Cu 324.752†	6291.5	217.2	0.6951	ug/L	0.6951	ppb	15:52:57
1	Mn 257.610†	429.2	39.2	0.0404	ug/L	0.0404	ppb	15:53:17
1	Mo 202.031†	21.1	7.3	0.6290	ug/L	0.6290	ppb	15:53:17
1	Ni 231.604†	64.9	11.9	0.3743	ug/L	0.3743	ppb	15:53:17
1	P 214.914†	177.5	2.0	1.4142	ug/L	1.4142	ppb	15:53:17
1	Pb 220.353†	-1.5	42.4	6.5696	ug/L	6.5696	ppb	15:53:17
1	S 181.975 Axial†	32.0	1.2	2.0938	ug/L	2.0938	ppb	15:53:17
1	Sb 206.836†	45.9	17.4	7.2521	ug/L	7.2521	ppb	15:53:17
1	Se 196.026†	-14.7	4.5	3.6008	ug/L	3.6008	ppb	15:53:17
1	Si 251.611†	567.6	114.8	4.2487	ug/L	4.2487	ppb	15:53:17
1	Sn 189.927†	13.6	5.8	1.3191	ug/L	1.3191	ppb	15:53:17
1	Ti 334.940†	-1013.7	-52.9	-0.1068	ug/L	-0.1068	ppb	15:52:57
1	Tl 190.801†	-22.3	8.8	3.4164	ug/L	3.4164	ppb	15:53:17
1	U 409.014†	-1883.2	121.1	3.5412	ug/L	3.5412	ppb	15:52:57
1	V 292.402†	-1227.0	20.6	0.1848	ug/L	0.1848	ppb	15:52:57
1	Zn 213.857†	631.6	128.7	1.5638	ug/L	1.5638	ppb	15:53:17
1	SiO2†	563.4	84.6	6.6257	ug/L	6.6257	ppb	15:54:28
2	Sc Radial	3326.0	3326.0	99.3	%			15:52:25
2	Y RADIAL	2734.8	2734.8	99.69	%			15:52:25
2	Al 396.153Radial†	-66.0	-6.5	-13.877	ug/L	-13.877	ppb	15:52:25
2	Ca 317.933Radial†	9.1	-1.0	-4.0082	ug/L	-4.0082	ppb	15:52:25
2	Fe 238.204 Radial†	9.6	1.0	28.609	ug/L	28.609	ppb	15:52:25
2	K 766.490 Radial†	2642.6	547.5	250.63	ug/L	250.63	ppb	15:52:05
2	Mg 279.077 IEC†	2.3	1.9	183.35	ug/L	183.35	ppb	15:52:25
2	Na 589.592 Radial†	-656.3	121.5	40.588	ug/L	40.588	ppb	15:52:05
2	Sr 421.552†	39.5	4.1	0.0411	ug/L	0.0411	ppb	15:52:05
2	Sc 361.383	845119.1	845119.1	101.24	%			15:53:22
2	Y 371.029	724572.4	724572.4	101.24	%			15:53:22
2	Ag 328.068†	170.5	9.4	0.0585	ug/L	0.0585	ppb	15:53:22
2	As 188.979†	-1.8	14.1	7.8695	ug/L	7.8695	ppb	15:53:43
2	B 249.677†	484.1	568.3	15.926	ug/L	15.926	ppb	15:53:43
2	Ba 233.527†	11.4	18.5	0.1750	ug/L	0.1750	ppb	15:53:43
2	Be 313.107†	-3622.0	35.0	0.0157	ug/L	0.0157	ppb	15:53:22
2	Cd 226.502†	-104.7	38.2	0.5492	ug/L	0.5492	ppb	15:53:43
2	Co 228.616†	-42.5	1.6	0.0401	ug/L	0.0401	ppb	15:53:43
2	Cr 267.716†	77.5	10.8	0.1431	ug/L	0.1431	ppb	15:53:43
2	Cu 324.752†	6298.5	150.7	0.4859	ug/L	0.4859	ppb	15:53:22
2	Mn 257.610†	410.4	15.7	0.0159	ug/L	0.0159	ppb	15:53:43
2	Mo 202.031†	12.8	-1.1	-0.0945	ug/L	-0.0945	ppb	15:53:43
2	Ni 231.604†	68.6	14.8	0.4656	ug/L	0.4656	ppb	15:53:43

2	P 214.914†	172.7	-4.8	-3.7871 ug/L	-3.7871 ppb	15:53:43
2	Pb 220.353†	-7.5	36.5	5.6474 ug/L	5.6474 ppb	15:53:43
2	S 181.975 Axial†	28.3	-2.9	-5.1127 ug/L	-5.1127 ppb	15:53:43
2	Sb 206.836†	34.4	5.5	2.3224 ug/L	2.3224 ppb	15:53:43
2	Se 196.026†	-13.9	5.5	4.5344 ug/L	4.5344 ppb	15:53:43
2	Si 251.611†	572.2	112.8	4.1842 ug/L	4.1842 ppb	15:53:43
2	Sn 189.927†	16.2	8.1	1.8471 ug/L	1.8471 ppb	15:53:43
2	Ti 334.940†	-819.2	151.1	0.2408 ug/L	0.2408 ppb	15:53:22
2	Tl 190.801†	-19.0	12.3	4.7822 ug/L	4.7822 ppb	15:53:43
2	U 409.014†	-1986.9	40.6	1.1821 ug/L	1.1821 ppb	15:53:22
2	V 292.402†	-1160.8	100.2	0.7818 ug/L	0.7818 ppb	15:53:22
2	Zn 213.857†	629.8	119.6	1.4434 ug/L	1.4434 ppb	15:53:43
2	SiO2†	549.3	64.0	5.0340 ug/L	5.0340 ppb	15:54:48
3	Sc Radial	3342.2	3342.2	99.8 %		15:52:51
3	Y RADIAL	2740.7	2740.7	99.91 %		15:52:51
3	Al 396.153Radial†	-67.2	-7.3	-15.725 ug/L	-15.725 ppb	15:52:51
3	Ca 317.933Radial†	10.0	-0.2	-0.7903 ug/L	-0.7903 ppb	15:52:51
3	Fe 238.204 Radial†	8.8	0.2	4.9301 ug/L	4.9301 ppb	15:52:51
3	K 766.490 Radial†	2461.6	353.2	161.68 ug/L	161.68 ppb	15:52:30
3	Mg 279.077 IEC†	4.2	3.7	363.58 ug/L	363.58 ppb	15:52:51
3	Na 589.592 Radial†	-660.1	120.9	40.383 ug/L	40.383 ppb	15:52:30
3	Sr 421.552†	23.6	-12.0	-0.1194 ug/L	-0.1194 ppb	15:52:30
3	Sc 361.383	833180.6	833180.6	99.813 %		15:53:48
3	Y 371.029	715023.5	715023.5	99.910 %		15:53:48
3	Ag 328.068†	153.9	-4.9	-0.0221 ug/L	-0.0221 ppb	15:53:48
3	As 188.979†	3.0	18.9	10.526 ug/L	10.526 ppb	15:54:08
3	B 249.677†	453.7	544.7	15.270 ug/L	15.270 ppb	15:54:08
3	Ba 233.527†	8.4	15.6	0.1447 ug/L	0.1447 ppb	15:54:08
3	Be 313.107†	-3562.3	43.6	0.0188 ug/L	0.0188 ppb	15:53:48
3	Cd 226.502†	-113.7	27.7	0.3989 ug/L	0.3989 ppb	15:54:08
3	Co 228.616†	-53.7	-10.3	-0.2649 ug/L	-0.2649 ppb	15:54:08
3	Cr 267.716†	87.5	22.0	0.2875 ug/L	0.2875 ppb	15:54:08
3	Cu 324.752†	6270.5	211.8	0.6837 ug/L	0.6837 ppb	15:53:48
3	Mn 257.610†	394.2	5.2	-0.0075 ug/L	-0.0075 ppb	15:54:08
3	Mo 202.031†	22.1	8.4	0.7256 ug/L	0.7256 ppb	15:54:08
3	Ni 231.604†	66.0	13.1	0.4142 ug/L	0.4142 ppb	15:54:08
3	P 214.914†	178.7	3.7	2.6585 ug/L	2.6585 ppb	15:54:08
3	Pb 220.353†	-28.4	15.5	2.3930 ug/L	2.3930 ppb	15:54:08
3	S 181.975 Axial†	29.4	-1.4	-2.4542 ug/L	-2.4542 ppb	15:54:08
3	Sb 206.836†	41.4	13.0	5.4299 ug/L	5.4299 ppb	15:54:08
3	Se 196.026†	-12.1	7.1	5.8045 ug/L	5.8045 ppb	15:54:08
3	Si 251.611†	546.1	94.7	3.5023 ug/L	3.5023 ppb	15:54:08
3	Sn 189.927†	15.7	7.9	1.7924 ug/L	1.7924 ppb	15:54:08
3	Ti 334.940†	-966.0	-7.6	-0.0414 ug/L	-0.0414 ppb	15:53:48
3	Tl 190.801†	-19.1	12.0	4.6411 ug/L	4.6411 ppb	15:54:08
3	U 409.014†	-2112.0	-112.8	-3.2960 ug/L	-3.2960 ppb	15:53:48
3	V 292.402†	-1289.5	-45.1	-0.3422 ug/L	-0.3422 ppb	15:53:48
3	Zn 213.857†	627.8	126.5	1.5306 ug/L	1.5306 ppb	15:54:08
3	SiO2†	569.7	92.3	7.2278 ug/L	7.2278 ppb	15:55:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	837852.6	100.37	%	0.764				0.76%
Sc Radial	3340.7	99.7	%	0.42				0.42%
Y 371.029	718684.5	100.42	%	0.720				0.72%
Y RADIAL	2741.3	99.93	%	0.247				0.25%
Ag 328.068†	19.9	0.1009	ug/L	0.14885	0.1009	ppb	0.14885	147.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.0	-8.5965	ug/L	10.78666	-8.5965	ppb	10.78666	125.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.1	8.3840	ug/L	1.93653	8.3840	ppb	1.93653	23.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	580.8	16.281	ug/L	1.2273	16.281	ppb	1.2273	7.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.1	0.1786	ug/L	0.03577	0.1786	ppb	0.03577	20.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	46.5	0.0202	ug/L	0.00534	0.0202	ppb	0.00534	26.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-2.2816	ug/L	1.62182	-2.2816	ppb	1.62182	71.08%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              30.2      0.4371 ug/L       0.09872      0.4371 ppb        0.09872  22.59%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               0.6      0.0166 ug/L       0.27045      0.0166 ppb        0.27045 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              18.1      0.2364 ug/L       0.08091      0.2364 ppb        0.08091  34.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             193.2      0.6216 ug/L       0.11766      0.6216 ppb        0.11766  18.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.0     -0.3953 ug/L      32.00075     -0.3953 ppb       32.00075 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       422.4      193.36 ug/L        49.691      193.36 ppb         49.691  25.70%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.5      243.89 ug/L       103.661      243.89 ppb        103.661  42.50%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              20.0      0.0163 ug/L       0.02396      0.0163 ppb        0.02396 147.39%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.9      0.4200 ug/L       0.44820      0.4200 ppb        0.44820 106.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      137.0      45.754 ug/L        9.1275      45.754 ppb         9.1275  19.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              13.3      0.4180 ug/L       0.04580      0.4180 ppb        0.04580  10.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.3      0.0952 ug/L       3.41928      0.0952 ppb        3.41928 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              31.5      4.8700 ug/L       2.19414      4.8700 ppb        2.19414  45.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.0     -1.8244 ug/L       3.64430     -1.8244 ppb        3.64430 199.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              12.0      5.0014 ug/L       2.49264      5.0014 ppb        2.49264  49.84%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.7      4.6465 ug/L       1.10611      4.6465 ppb        1.10611  23.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             107.4      3.9784 ug/L       0.41354      3.9784 ppb        0.41354  10.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      1.6529 ug/L       0.29033      1.6529 ppb        0.29033  17.57%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               3.4      0.0335 ug/L       0.14921      0.0335 ppb        0.14921 445.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              30.2      0.0309 ug/L       0.18473      0.0309 ppb        0.18473 598.67%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              11.0      4.2799 ug/L       0.75115      4.2799 ppb        0.75115  17.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               16.3      0.4758 ug/L       3.47287      0.4758 ppb        3.47287 729.92%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               25.2      0.2081 ug/L       0.56235      0.2081 ppb        0.56235 270.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             124.9      1.5126 ug/L       0.06217      1.5126 ppb        0.06217   4.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    80.3      6.2958 ug/L       1.13349      6.2958 ppb        1.13349  18.00%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 3/9/2010 15:58:00 **Plasma On Time: 3/8/2010 08:27:38**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\030910.sif
Batch ID:
Results Data Set: 030910
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/9/2010 13:45:02**
IEC File: 011110.iec **MSF File:**
Method Description:

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

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/9/2010 15:58:02**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3325.2	3325.2	99.2	%			16:00:14
1	Y RADIAL	2694.6	2694.6	98.23	%			16:00:14
1	Al 396.153Radial†	2245.1	2322.2	4966.7	ug/L	4966.7	ppb	15:59:54

1	Ca 317.933Radial†	1282.4	1281.9	5087.5 ug/L	5087.5 ppb	16:00:14
1	Fe 238.204 Radial†	191.0	183.9	5125.6 ug/L	5125.6 ppb	16:00:14
1	K 766.490 Radial†	13182.2	11167.7	5105.9 ug/L	5105.9 ppb	15:59:54
1	Mg 279.077 IEC†	54.5	54.5	5284.6 ug/L	5284.6 ppb	16:00:14
1	Na 589.592 Radial†	28835.4	29836.6	9964.1 ug/L	9964.1 ppb	15:59:54
1	Sr 421.552†	51199.7	51552.2	511.16 ug/L	511.16 ppb	15:59:54
1	Sc 361.383	858212.2	858212.2	102.81 %		16:01:11
1	Y 371.029	726119.0	726119.0	101.46 %		16:01:11
1	Ag 328.068†	101948.8	99002.0	503.31 ug/L	503.31 ppb	16:01:16
1	As 188.979†	920.0	910.8	510.61 ug/L	510.61 ppb	16:01:36
1	B 249.677†	18570.7	18153.1	506.58 ug/L	506.58 ppb	16:01:16
1	Ba 233.527†	55106.1	53606.4	501.91 ug/L	501.91 ppb	16:01:16
1	Be 313.107†	1190987.1	1162032.9	502.61 ug/L	502.61 ppb	16:01:11
1	Cd 226.502†	35631.9	34799.1	502.93 ug/L	502.93 ppb	16:01:16
1	Co 228.616†	20285.8	19774.7	512.91 ug/L	512.91 ppb	16:01:16
1	Cr 267.716†	39506.3	38360.3	501.07 ug/L	501.07 ppb	16:01:16
1	Cu 324.752†	165521.6	154925.1	498.56 ug/L	498.56 ppb	16:01:16
1	Mn 257.610†	391735.8	380634.4	499.08 ug/L	499.08 ppb	16:01:11
1	Mo 202.031†	5900.6	5725.5	494.65 ug/L	494.65 ppb	16:01:36
1	Ni 231.604†	16698.4	16188.8	509.94 ug/L	509.94 ppb	16:01:16
1	P 214.914†	3537.3	3265.1	2382.7 ug/L	2382.7 ppb	16:01:36
1	Pb 220.353†	3264.4	3219.0	499.84 ug/L	499.84 ppb	16:01:36
1	S 181.975 Axial†	604.6	557.2	992.87 ug/L	992.87 ppb	16:01:36
1	Sb 206.836†	1260.7	1197.7	514.14 ug/L	514.14 ppb	16:01:36
1	Se 196.026†	618.7	621.0	522.26 ug/L	522.26 ppb	16:01:36
1	Si 251.611†	70093.4	67724.3	2505.0 ug/L	2505.0 ppb	16:01:16
1	Sn 189.927†	2254.4	2184.9	497.10 ug/L	497.10 ppb	16:01:36
1	Ti 334.940†	295887.5	288756.9	490.62 ug/L	490.62 ppb	16:01:16
1	Tl 190.801†	1283.7	1279.6	499.63 ug/L	499.63 ppb	16:01:36
1	U 409.014†	16092.7	17655.8	513.89 ug/L	513.89 ppb	16:01:16
1	V 292.402†	64673.4	64151.7	507.41 ug/L	507.41 ppb	16:01:16
1	Zn 213.857†	43220.3	41536.1	499.29 ug/L	499.29 ppb	16:01:16
1	SiO2†	68180.7	65837.9	5158.4 ug/L	5158.4 ppb	16:02:44
2	Sc Radial	3324.3	3324.3	99.2 %		16:00:39
2	Y RADIAL	2711.1	2711.1	98.83 %		16:00:39
2	Al 396.153Radial†	2229.0	2306.6	4933.1 ug/L	4933.1 ppb	16:00:19
2	Ca 317.933Radial†	1282.4	1282.2	5088.7 ug/L	5088.7 ppb	16:00:39
2	Fe 238.204 Radial†	189.2	182.0	5074.0 ug/L	5074.0 ppb	16:00:39
2	K 766.490 Radial†	13233.6	11223.1	5131.3 ug/L	5131.3 ppb	16:00:19
2	Mg 279.077 IEC†	52.0	52.0	5046.3 ug/L	5046.3 ppb	16:00:39
2	Na 589.592 Radial†	28835.3	29844.4	9966.7 ug/L	9966.7 ppb	16:00:19
2	Sr 421.552†	51143.3	51509.3	510.73 ug/L	510.73 ppb	16:00:19
2	Sc 361.383	854867.8	854867.8	102.41 %		16:01:42
2	Y 371.029	722931.9	722931.9	101.02 %		16:01:42
2	Ag 328.068†	100082.6	97567.6	496.02 ug/L	496.02 ppb	16:01:47
2	As 188.979†	907.2	901.8	505.52 ug/L	505.52 ppb	16:02:07
2	B 249.677†	18152.1	17815.0	497.14 ug/L	497.14 ppb	16:01:47
2	Ba 233.527†	54278.9	53008.4	496.30 ug/L	496.30 ppb	16:01:47
2	Be 313.107†	1174916.8	1150872.7	497.77 ug/L	497.77 ppb	16:01:42
2	Cd 226.502†	34999.3	34317.0	495.96 ug/L	495.96 ppb	16:01:47
2	Co 228.616†	19867.5	19443.4	504.34 ug/L	504.34 ppb	16:01:47
2	Cr 267.716†	38851.8	37871.5	494.69 ug/L	494.69 ppb	16:01:47
2	Cu 324.752†	161934.4	152052.1	489.32 ug/L	489.32 ppb	16:01:47
2	Mn 257.610†	387528.7	378016.9	495.65 ug/L	495.65 ppb	16:01:42
2	Mo 202.031†	5901.9	5749.2	496.69 ug/L	496.69 ppb	16:02:07
2	Ni 231.604†	16365.5	15927.2	501.71 ug/L	501.71 ppb	16:01:47
2	P 214.914†	3524.8	3266.4	2385.5 ug/L	2385.5 ppb	16:02:07
2	Pb 220.353†	3271.3	3238.3	502.83 ug/L	502.83 ppb	16:02:07
2	S 181.975 Axial†	597.7	552.8	985.02 ug/L	985.02 ppb	16:02:07
2	Sb 206.836†	1272.4	1213.9	520.88 ug/L	520.88 ppb	16:02:07
2	Se 196.026†	615.9	620.6	521.83 ug/L	521.83 ppb	16:02:07
2	Si 251.611†	68903.9	66829.5	2471.8 ug/L	2471.8 ppb	16:01:47
2	Sn 189.927†	2242.7	2182.1	496.46 ug/L	496.46 ppb	16:02:07
2	Ti 334.940†	289907.1	284043.2	482.64 ug/L	482.64 ppb	16:01:47
2	Tl 190.801†	1299.4	1299.8	507.44 ug/L	507.44 ppb	16:02:07
2	U 409.014†	15497.4	17135.8	498.72 ug/L	498.72 ppb	16:01:47
2	V 292.402†	63185.4	62944.9	498.00 ug/L	498.00 ppb	16:01:47
2	Zn 213.857†	42454.0	40952.2	492.27 ug/L	492.27 ppb	16:01:47
2	SiO2†	68793.7	66695.9	5225.7 ug/L	5225.7 ppb	16:02:49
3	Sc Radial	3289.0	3289.0	98.2 %		16:01:04
3	Y RADIAL	2686.7	2686.7	97.94 %		16:01:04

3	Al 396.153Radial†	2230.4	2332.1	4988.1 ug/L	4988.1 ppb	16:00:44
3	Ca 317.933Radial†	1279.9	1293.5	5133.5 ug/L	5133.5 ppb	16:01:04
3	Fe 238.204 Radial†	191.3	186.2	5190.6 ug/L	5190.6 ppb	16:01:04
3	K 766.490 Radial†	13197.5	11329.5	5179.9 ug/L	5179.9 ppb	16:00:44
3	Mg 279.077 IEC†	54.7	55.2	5361.2 ug/L	5361.2 ppb	16:01:04
3	Na 589.592 Radial†	28577.0	29893.1	9983.0 ug/L	9983.0 ppb	16:00:44
3	Sr 421.552†	51035.9	51953.0	515.13 ug/L	515.13 ppb	16:00:44
3	Sc 361.383	859614.4	859614.4	102.98 %		16:02:13
3	Y 371.029	726563.6	726563.6	101.52 %		16:02:13
3	Ag 328.068†	100502.5	97435.8	495.39 ug/L	495.39 ppb	16:02:18
3	As 188.979†	909.7	899.4	504.18 ug/L	504.18 ppb	16:02:38
3	B 249.677†	18248.1	17810.4	496.99 ug/L	496.99 ppb	16:02:18
3	Ba 233.527†	54421.0	52853.7	494.87 ug/L	494.87 ppb	16:02:18
3	Be 313.107†	1181594.1	1151022.0	497.84 ug/L	497.84 ppb	16:02:13
3	Cd 226.502†	35129.6	34254.8	495.05 ug/L	495.05 ppb	16:02:18
3	Co 228.616†	19912.9	19380.3	502.69 ug/L	502.69 ppb	16:02:18
3	Cr 267.716†	38949.0	37756.4	493.19 ug/L	493.19 ppb	16:02:18
3	Cu 324.752†	162621.9	151846.6	488.66 ug/L	488.66 ppb	16:02:18
3	Mn 257.610†	389708.8	378044.5	495.69 ug/L	495.69 ppb	16:02:13
3	Mo 202.031†	5871.6	5688.0	491.41 ug/L	491.41 ppb	16:02:38
3	Ni 231.604†	16447.5	15918.6	501.44 ug/L	501.44 ppb	16:02:18
3	P 214.914†	3508.1	3231.2	2358.8 ug/L	2358.8 ppb	16:02:38
3	Pb 220.353†	3280.6	3229.7	501.48 ug/L	501.48 ppb	16:02:38
3	S 181.975 Axial†	600.0	551.8	983.20 ug/L	983.20 ppb	16:02:38
3	Sb 206.836†	1251.0	1186.4	509.30 ug/L	509.30 ppb	16:02:38
3	Se 196.026†	607.5	609.2	512.83 ug/L	512.83 ppb	16:02:38
3	Si 251.611†	69056.3	66606.0	2463.6 ug/L	2463.6 ppb	16:02:18
3	Sn 189.927†	2240.7	2168.0	493.26 ug/L	493.26 ppb	16:02:38
3	Ti 334.940†	291507.1	284033.8	482.60 ug/L	482.60 ppb	16:02:18
3	Tl 190.801†	1292.6	1286.3	502.17 ug/L	502.17 ppb	16:02:38
3	U 409.014†	15742.9	17290.6	503.23 ug/L	503.23 ppb	16:02:18
3	V 292.402†	63707.3	63110.9	499.22 ug/L	499.22 ppb	16:02:18
3	Zn 213.857†	42591.2	40856.5	491.10 ug/L	491.10 ppb	16:02:18
3	SiO2†	68606.8	66143.5	5182.5 ug/L	5182.5 ppb	16:02:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	857564.8	102.73	%	0.292				0.28%
Sc Radial	3312.8	98.9	%	0.62				0.62%
Y 371.029	725204.8	101.33	%	0.277				0.27%
Y RADIAL	2697.5	98.33	%	0.452				0.46%
Ag 328.068†	98001.8	498.24	ug/L	4.401	498.24	ppb	4.401	0.88%
QC value within limits for Ag 328.068 Recovery = 99.65%								
Al 396.153Radial†	2320.3	4962.7	ug/L	27.72	4962.7	ppb	27.72	0.56%
QC value within limits for Al 396.153Radial Recovery = 99.25%								
As 188.979†	904.0	506.77	ug/L	3.389	506.77	ppb	3.389	0.67%
QC value within limits for As 188.979 Recovery = 101.35%								
B 249.677†	17926.2	500.23	ug/L	5.495	500.23	ppb	5.495	1.10%
QC value within limits for B 249.677 Recovery = 100.05%								
Ba 233.527†	53156.2	497.69	ug/L	3.723	497.69	ppb	3.723	0.75%
QC value within limits for Ba 233.527 Recovery = 99.54%								
Be 313.107†	1154642.6	499.41	ug/L	2.773	499.41	ppb	2.773	0.56%
QC value within limits for Be 313.107 Recovery = 99.88%								
Ca 317.933Radial†	1285.9	5103.2	ug/L	26.24	5103.2	ppb	26.24	0.51%
QC value within limits for Ca 317.933Radial Recovery = 102.06%								
Cd 226.502†	34457.0	497.98	ug/L	4.312	497.98	ppb	4.312	0.87%
QC value within limits for Cd 226.502 Recovery = 99.60%								
Co 228.616†	19532.8	506.65	ug/L	5.486	506.65	ppb	5.486	1.08%
QC value within limits for Co 228.616 Recovery = 101.33%								
Cr 267.716†	37996.1	496.32	ug/L	4.185	496.32	ppb	4.185	0.84%
QC value within limits for Cr 267.716 Recovery = 99.26%								
Cu 324.752†	152941.3	492.18	ug/L	5.534	492.18	ppb	5.534	1.12%
QC value within limits for Cu 324.752 Recovery = 98.44%								
Fe 238.204 Radial†	184.0	5130.1	ug/L	58.43	5130.1	ppb	58.43	1.14%
QC value within limits for Fe 238.204 Radial Recovery = 102.60%								
K 766.490 Radial†	11240.1	5139.0	ug/L	37.63	5139.0	ppb	37.63	0.73%
QC value within limits for K 766.490 Radial Recovery = 102.78%								
Mg 279.077 IEC†	53.9	5230.7	ug/L	164.23	5230.7	ppb	164.23	3.14%
QC value within limits for Mg 279.077 IEC Recovery = 104.61%								

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Mn 257.610†          378898.6      496.81 ug/L        1.968      496.81 ppb        1.968   0.40%
   QC value within limits for Mn 257.610  Recovery = 99.36%
Mo 202.031†            5720.9      494.25 ug/L        2.660      494.25 ppb        2.660   0.54%
   QC value within limits for Mo 202.031  Recovery = 98.85%
Na 589.592 Radial†    29858.1      9971.3 ug/L       10.23      9971.3 ppb       10.23   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 99.71%
Ni 231.604†           16011.6      504.36 ug/L        4.836      504.36 ppb        4.836   0.96%
   QC value within limits for Ni 231.604  Recovery = 100.87%
P 214.914†             3254.3      2375.7 ug/L       14.68      2375.7 ppb       14.68   0.62%
   QC value within limits for P 214.914  Recovery = 95.03%
Pb 220.353†            3229.0      501.38 ug/L        1.496      501.38 ppb        1.496   0.30%
   QC value within limits for Pb 220.353  Recovery = 100.28%
S 181.975 Axial†        553.9      987.03 ug/L        5.138      987.03 ppb        5.138   0.52%
   QC value within limits for S 181.975 Axial  Recovery = 98.70%
Sb 206.836†            1199.3      514.77 ug/L        5.819      514.77 ppb        5.819   1.13%
   QC value within limits for Sb 206.836  Recovery = 102.95%
Se 196.026†             616.9      518.97 ug/L        5.321      518.97 ppb        5.321   1.03%
   QC value within limits for Se 196.026  Recovery = 103.79%
Si 251.611†           67053.3      2480.1 ug/L       21.93      2480.1 ppb       21.93   0.88%
   QC value within limits for Si 251.611  Recovery = 99.21%
Sn 189.927†            2178.3      495.61 ug/L        2.057      495.61 ppb        2.057   0.42%
   QC value within limits for Sn 189.927  Recovery = 99.12%
Sr 421.552†           51671.5      512.34 ug/L        2.427      512.34 ppb        2.427   0.47%
   QC value within limits for Sr 421.552  Recovery = 102.47%
Ti 334.940†          285611.3      485.28 ug/L        4.620      485.28 ppb        4.620   0.95%
   QC value within limits for Ti 334.940  Recovery = 97.06%
Tl 190.801†            1288.6      503.08 ug/L        3.983      503.08 ppb        3.983   0.79%
   QC value within limits for Tl 190.801  Recovery = 100.62%
U 409.014†            17360.7      505.28 ug/L        7.788      505.28 ppb        7.788   1.54%
   QC value within limits for U 409.014  Recovery = 101.06%
V 292.402†            63402.5      501.54 ug/L        5.116      501.54 ppb        5.116   1.02%
   QC value within limits for V 292.402  Recovery = 100.31%
Zn 213.857†           41114.9      494.22 ug/L        4.427      494.22 ppb        4.427   0.90%
   QC value within limits for Zn 213.857  Recovery = 98.84%
SiO2†                 66225.7      5188.8 ug/L       34.12      5188.8 ppb       34.12   0.66%
   QC value within limits for SiO2  Recovery = 97.03%
All analyte(s) passed QC.
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Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/9/2010 16:05:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3264.1	3264.1	97.4	%			16:07:18
1	Y RADIAL	2660.8	2660.8	96.99	%			16:07:18
1	Al 396.153Radial†	-59.8	-1.4	-2.9653	ug/L	-2.9653	ppb	16:07:18
1	Ca 317.933Radial†	10.2	0.3	1.0213	ug/L	1.0213	ppb	16:07:18
1	Fe 238.204 Radial†	6.8	-1.7	-47.227	ug/L	-47.227	ppb	16:07:18
1	K 766.490 Radial†	2374.6	323.0	147.84	ug/L	147.84	ppb	16:06:58
1	Mg 279.077 IEC†	2.2	1.8	177.92	ug/L	177.92	ppb	16:07:18
1	Na 589.592 Radial†	-690.1	74.2	24.784	ug/L	24.784	ppb	16:06:58
1	Sr 421.552†	23.1	-12.0	-0.1189	ug/L	-0.1189	ppb	16:06:58
1	Sc 361.383	850398.4	850398.4	101.88	%			16:08:14
1	Y 371.029	729756.6	729756.6	101.97	%			16:08:14
1	Ag 328.068†	238.2	74.8	0.3632	ug/L	0.3632	ppb	16:08:14
1	As 188.979†	-18.7	-2.3	-1.3145	ug/L	-1.3145	ppb	16:08:34
1	B 249.677†	151.1	238.6	6.6958	ug/L	6.6958	ppb	16:08:34
1	Ba 233.527†	16.2	23.1	0.2146	ug/L	0.2146	ppb	16:08:34
1	Be 313.107†	-3561.9	116.2	0.0503	ug/L	0.0503	ppb	16:08:14
1	Cd 226.502†	-124.6	19.2	0.2830	ug/L	0.2830	ppb	16:08:34
1	Co 228.616†	-50.2	-5.8	-0.1485	ug/L	-0.1485	ppb	16:08:34
1	Cr 267.716†	64.2	-2.7	-0.0377	ug/L	-0.0377	ppb	16:08:34
1	Cu 324.752†	6129.3	-54.0	-0.1766	ug/L	-0.1766	ppb	16:08:14
1	Mn 257.610†	387.8	-9.0	-0.0238	ug/L	-0.0238	ppb	16:08:34
1	Mo 202.031†	14.4	0.3	0.0255	ug/L	0.0255	ppb	16:08:34
1	Ni 231.604†	58.0	3.9	0.1230	ug/L	0.1230	ppb	16:08:34
1	P 214.914†	186.1	7.3	5.6444	ug/L	5.6444	ppb	16:08:34
1	Pb 220.353†	-19.6	24.7	3.8309	ug/L	3.8309	ppb	16:08:34
1	S 181.975 Axial†	29.1	-2.3	-4.0862	ug/L	-4.0862	ppb	16:08:34
1	Sb 206.836†	26.6	-2.4	-0.9818	ug/L	-0.9818	ppb	16:08:34
1	Se 196.026†	-10.4	9.0	7.1715	ug/L	7.1715	ppb	16:08:34
1	Si 251.611†	498.1	36.6	1.3554	ug/L	1.3554	ppb	16:08:34
1	Sn 189.927†	11.9	3.9	0.8827	ug/L	0.8827	ppb	16:08:34
1	Ti 334.940†	-923.0	54.2	0.0774	ug/L	0.0774	ppb	16:08:14
1	Tl 190.801†	-20.0	11.5	4.4478	ug/L	4.4478	ppb	16:08:34
1	U 409.014†	-2010.6	29.6	0.8685	ug/L	0.8685	ppb	16:08:14
1	V 292.402†	-1242.5	27.1	0.2241	ug/L	0.2241	ppb	16:08:14
1	Zn 213.857†	554.1	41.4	0.5094	ug/L	0.5094	ppb	16:08:34
1	SiO2†	511.3	23.4	1.8352	ug/L	1.8352	ppb	16:09:45
2	Sc Radial	3343.3	3343.3	99.8	%			16:07:43
2	Y RADIAL	2727.0	2727.0	99.41	%			16:07:43
2	Al 396.153Radial†	-70.0	-10.1	-21.656	ug/L	-21.656	ppb	16:07:43
2	Ca 317.933Radial†	12.9	2.7	10.579	ug/L	10.579	ppb	16:07:43
2	Fe 238.204 Radial†	7.2	-1.4	-38.039	ug/L	-38.039	ppb	16:07:43
2	K 766.490 Radial†	2206.3	96.5	44.184	ug/L	44.184	ppb	16:07:23
2	Mg 279.077 IEC†	3.8	3.3	321.61	ug/L	321.61	ppb	16:07:43
2	Na 589.592 Radial†	-714.8	66.3	22.144	ug/L	22.144	ppb	16:07:23
2	Sr 421.552†	24.1	-11.5	-0.1140	ug/L	-0.1140	ppb	16:07:23
2	Sc 361.383	861039.0	861039.0	103.15	%			16:08:40
2	Y 371.029	737584.5	737584.5	103.06	%			16:08:40
2	Ag 328.068†	186.5	21.7	0.1015	ug/L	0.1015	ppb	16:08:40
2	As 188.979†	-9.8	6.5	3.5912	ug/L	3.5912	ppb	16:09:00
2	B 249.677†	133.7	219.8	6.1677	ug/L	6.1677	ppb	16:09:00
2	Ba 233.527†	8.8	15.7	0.1463	ug/L	0.1463	ppb	16:09:00
2	Be 313.107†	-3561.5	159.8	0.0693	ug/L	0.0693	ppb	16:08:40
2	Cd 226.502†	-131.7	13.9	0.2044	ug/L	0.2044	ppb	16:09:00
2	Co 228.616†	-38.0	6.7	0.1732	ug/L	0.1732	ppb	16:09:00
2	Cr 267.716†	96.8	28.1	0.3666	ug/L	0.3666	ppb	16:09:00
2	Cu 324.752†	6172.9	-86.0	-0.2774	ug/L	-0.2774	ppb	16:08:40
2	Mn 257.610†	397.3	-4.5	-0.0229	ug/L	-0.0229	ppb	16:09:00
2	Mo 202.031†	12.4	-1.8	-0.1573	ug/L	-0.1573	ppb	16:09:00
2	Ni 231.604†	69.1	14.0	0.4408	ug/L	0.4408	ppb	16:09:00

2	P 214.914†	184.2	3.1	2.4793 ug/L	2.4793 ppb	16:09:00
2	Pb 220.353†	-15.6	28.8	4.4656 ug/L	4.4656 ppb	16:09:00
2	S 181.975 Axial†	29.2	-2.6	-4.5916 ug/L	-4.5916 ppb	16:09:00
2	Sb 206.836†	30.3	0.9	0.4096 ug/L	0.4096 ppb	16:09:00
2	Se 196.026†	-23.4	-3.5	-2.9358 ug/L	-2.9358 ppb	16:09:00
2	Si 251.611†	488.5	21.2	0.7873 ug/L	0.7873 ppb	16:09:00
2	Sn 189.927†	13.6	5.4	1.2226 ug/L	1.2226 ppb	16:09:00
2	Ti 334.940†	-896.2	91.4	0.1316 ug/L	0.1316 ppb	16:08:40
2	Tl 190.801†	-22.2	9.6	3.7195 ug/L	3.7195 ppb	16:09:00
2	U 409.014†	-2162.0	-92.8	-2.7064 ug/L	-2.7064 ppb	16:08:40
2	V 292.402†	-1237.8	46.8	0.3690 ug/L	0.3690 ppb	16:08:40
2	Zn 213.857†	531.9	13.2	0.1634 ug/L	0.1634 ppb	16:09:00
2	SiO2†	507.5	13.6	1.0704 ug/L	1.0704 ppb	16:10:05
3	Sc Radial	3364.4	3364.4	100 %		16:08:08
3	Y RADIAL	2761.6	2761.6	100.7 %		16:08:08
3	Al 396.153Radial†	-67.4	-7.1	-15.201 ug/L	-15.201 ppb	16:08:08
3	Ca 317.933Radial†	7.9	-2.3	-9.2193 ug/L	-9.2193 ppb	16:08:08
3	Fe 238.204 Radial†	10.8	2.1	57.676 ug/L	57.676 ppb	16:08:08
3	K 766.490 Radial†	2214.4	90.8	41.551 ug/L	41.551 ppb	16:07:48
3	Mg 279.077 IEC†	1.2	0.8	73.476 ug/L	73.476 ppb	16:08:08
3	Na 589.592 Radial†	-760.2	25.6	8.5516 ug/L	8.5516 ppb	16:07:48
3	Sr 421.552†	-5.2	-40.8	-0.4049 ug/L	-0.4049 ppb	16:07:48
3	Sc 361.383	853367.8	853367.8	102.23 %		16:09:05
3	Y 371.029	731719.9	731719.9	102.24 %		16:09:05
3	Ag 328.068†	229.7	65.6	0.3493 ug/L	0.3493 ppb	16:09:05
3	As 188.979†	-16.6	-0.3	-0.1519 ug/L	-0.1519 ppb	16:09:25
3	B 249.677†	141.5	228.7	6.4005 ug/L	6.4005 ppb	16:09:25
3	Ba 233.527†	4.7	11.8	0.1127 ug/L	0.1127 ppb	16:09:25
3	Be 313.107†	-3541.5	148.3	0.0641 ug/L	0.0641 ppb	16:09:05
3	Cd 226.502†	-129.9	14.5	0.2043 ug/L	0.2043 ppb	16:09:25
3	Co 228.616†	-47.5	-2.9	-0.0775 ug/L	-0.0775 ppb	16:09:25
3	Cr 267.716†	68.7	1.4	0.0210 ug/L	0.0210 ppb	16:09:25
3	Cu 324.752†	6080.1	-123.1	-0.3942 ug/L	-0.3942 ppb	16:09:05
3	Mn 257.610†	382.2	-15.8	-0.0181 ug/L	-0.0181 ppb	16:09:25
3	Mo 202.031†	12.7	-1.3	-0.1102 ug/L	-0.1102 ppb	16:09:25
3	Ni 231.604†	67.0	12.5	0.3928 ug/L	0.3928 ppb	16:09:25
3	P 214.914†	173.7	-5.5	-4.1265 ug/L	-4.1265 ppb	16:09:25
3	Pb 220.353†	-19.9	24.5	3.7750 ug/L	3.7750 ppb	16:09:25
3	S 181.975 Axial†	33.8	2.2	3.8977 ug/L	3.8977 ppb	16:09:25
3	Sb 206.836†	33.0	3.8	1.6115 ug/L	1.6115 ppb	16:09:25
3	Se 196.026†	-16.6	3.0	2.5678 ug/L	2.5678 ppb	16:09:25
3	Si 251.611†	498.5	35.3	1.3087 ug/L	1.3087 ppb	16:09:25
3	Sn 189.927†	13.1	5.0	1.1251 ug/L	1.1251 ppb	16:09:25
3	Ti 334.940†	-951.8	29.2	0.0414 ug/L	0.0414 ppb	16:09:05
3	Tl 190.801†	-23.0	8.6	3.3382 ug/L	3.3382 ppb	16:09:25
3	U 409.014†	-1971.7	74.5	2.1693 ug/L	2.1693 ppb	16:09:05
3	V 292.402†	-1215.5	57.8	0.4465 ug/L	0.4465 ppb	16:09:05
3	Zn 213.857†	539.8	25.6	0.2997 ug/L	0.2997 ppb	16:09:25
3	SiO2†	496.1	6.8	0.5393 ug/L	0.5393 ppb	16:10:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	854935.0	102.42	%	0.658				0.64%
Sc Radial	3323.9	99.2	%	1.58				1.59%
Y 371.029	733020.4	102.43	%	0.569				0.56%
Y RADIAL	2716.5	99.02	%	1.867				1.89%
Ag 328.068†	54.0	0.2713	ug/L	0.14726	0.2713	ppb	0.14726	54.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.2	-13.274	ug/L	9.4930	-13.274	ppb	9.4930	71.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	0.7083	ug/L	2.56350	0.7083	ppb	2.56350	361.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	229.0	6.4214	ug/L	0.26470	6.4214	ppb	0.26470	4.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.9	0.1579	ug/L	0.05191	0.1579	ppb	0.05191	32.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.4	0.0613	ug/L	0.00980	0.0613	ppb	0.00980	16.00%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.2	0.7937	ug/L	9.90121	0.7937	ppb	9.90121	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              15.9      0.2306 ug/L       0.04540      0.2306 ppb        0.04540  19.69%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -0.7     -0.0176 ug/L       0.16899     -0.0176 ppb        0.16899 960.84%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               8.9      0.1166 ug/L       0.21848      0.1166 ppb        0.21848 187.33%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -87.7     -0.2827 ug/L       0.10890     -0.2827 ppb        0.10890  38.52%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.3     -9.1969 ug/L      58.09527     -9.1969 ppb       58.09527 631.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       170.1      77.859 ug/L       60.6224      77.859 ppb        60.6224  77.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.0      191.00 ug/L       124.585      191.00 ppb        124.585  65.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -9.8     -0.0216 ug/L       0.00307     -0.0216 ppb        0.00307  14.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.9     -0.0806 ug/L       0.09493     -0.0806 ppb        0.09493 117.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       55.4      18.493 ug/L        8.7104      18.493 ppb         8.7104  47.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.1      0.3189 ug/L       0.17132      0.3189 ppb        0.17132  53.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.7      1.3324 ug/L       4.98541      1.3324 ppb        4.98541 374.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              26.0      4.0239 ug/L       0.38360      4.0239 ppb        0.38360   9.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -0.9     -1.5934 ug/L       4.76211     -1.5934 ppb        4.76211 298.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.8      0.3464 ug/L       1.29779      0.3464 ppb        1.29779 374.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.8      2.2678 ug/L       5.06032      2.2678 ppb        5.06032 223.14%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              31.0      1.1505 ug/L       0.31537      1.1505 ppb        0.31537  27.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.7      1.0768 ug/L       0.17501      1.0768 ppb        0.17501  16.25%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -21.4     -0.2126 ug/L       0.16654     -0.2126 ppb        0.16654  78.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              58.3      0.0835 ug/L       0.04540      0.0835 ppb        0.04540  54.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.9      3.8352 ug/L       0.56377      3.8352 ppb        0.56377  14.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                3.8      0.1105 ug/L       2.52471      0.1105 ppb        2.52471 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               43.9      0.3465 ug/L       0.11288      0.3465 ppb        0.11288  32.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              26.7      0.3242 ug/L       0.17427      0.3242 ppb        0.17427  53.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    14.6      1.1483 ug/L       0.65144      1.1483 ppb        0.65144  56.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 3/9/2010 16:12:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3315.5	3315.5	99.0	%			16:14:49
1	Y RADIAL	2724.7	2724.7	99.32	%			16:14:49
1	Al 396.153Radial†	-53.6	5.9	12.613	ug/L	12.613	ppb	16:14:49
1	Ca 317.933Radial†	15.6	5.6	22.030	ug/L	22.030	ppb	16:14:49
1	Fe 238.204 Radial†	6.3	-2.3	-64.081	ug/L	-64.081	ppb	16:14:49
1	K 766.490 Radial†	2183.1	91.7	41.964	ug/L	41.964	ppb	16:14:29
1	Mg 279.077 IEC†	3.0	2.6	250.47	ug/L	250.47	ppb	16:14:49
1	Na 589.592 Radial†	-739.1	35.7	11.925	ug/L	11.925	ppb	16:14:29
1	Sr 421.552†	29.2	-6.1	-0.0611	ug/L	-0.0611	ppb	16:14:29
1	Sc 361.383	848627.4	848627.4	101.66	%			16:15:46
1	Y 371.029	727337.9	727337.9	101.63	%			16:15:46
1	Ag 328.068†	164.1	2.3	0.0038	ug/L	0.0038	ppb	16:15:51
1	As 188.979†	-8.4	7.7	4.2441	ug/L	4.2441	ppb	16:16:11
1	B 249.677†	-8.2	82.1	2.3276	ug/L	2.3276	ppb	16:16:11
1	Ba 233.527†	1065902.5	1048472.9	9792.1	ug/L	9792.1	ppb	16:15:46
1	Be 313.107†	-3561.3	109.5	0.0473	ug/L	0.0473	ppb	16:15:51
1	Cd 226.502†	-131.0	12.7	0.1887	ug/L	0.1887	ppb	16:16:11
1	Co 228.616†	-246.6	-199.0	-0.4469	ug/L	-0.4469	ppb	16:16:11
1	Cr 267.716†	65.5	-1.3	-0.0141	ug/L	-0.0141	ppb	16:16:11
1	Cu 324.752†	6066.0	-103.6	-0.3310	ug/L	-0.3310	ppb	16:15:51
1	Mn 257.610†	405.3	9.0	-0.0048	ug/L	-0.0048	ppb	16:16:11
1	Mo 202.031†	12.6	-1.4	-0.1278	ug/L	-0.1278	ppb	16:16:11
1	Ni 231.604†	103.4	48.7	1.5370	ug/L	1.5370	ppb	16:16:11
1	P 214.914†	166.7	-11.4	-8.5627	ug/L	-8.5627	ppb	16:16:11
1	Pb 220.353†	-30.5	14.0	2.1747	ug/L	2.1747	ppb	16:16:11
1	S 181.975 Axial†	30.8	-0.6	-0.9899	ug/L	-0.9899	ppb	16:16:11
1	Sb 206.836†	26.4	-2.5	-1.0158	ug/L	-1.0158	ppb	16:16:11
1	Se 196.026†	-13.0	6.5	5.0946	ug/L	5.0946	ppb	16:16:11
1	Si 251.611†	496.4	35.9	1.3320	ug/L	1.3320	ppb	16:16:11
1	Sn 189.927†	10.0	2.0	0.4646	ug/L	0.4646	ppb	16:16:11
1	Ti 334.940†	-970.8	5.4	-0.0037	ug/L	-0.0037	ppb	16:15:51
1	Tl 190.801†	-27.1	4.4	1.7458	ug/L	1.7458	ppb	16:16:11
1	U 409.014†	-2408.3	-365.7	-10.673	ug/L	-10.673	ppb	16:15:51
1	V 292.402†	-1153.4	112.2	0.8680	ug/L	0.8680	ppb	16:15:51
1	Zn 213.857†	548.1	36.6	0.4449	ug/L	0.4449	ppb	16:16:11
1	SiO2†	507.7	20.9	1.6435	ug/L	1.6435	ppb	16:17:32
2	Sc Radial	3299.9	3299.9	98.5	%			16:15:14
2	Y RADIAL	2716.4	2716.4	99.02	%			16:15:14
2	Al 396.153Radial†	-64.8	-5.8	-12.364	ug/L	-12.364	ppb	16:15:14
2	Ca 317.933Radial†	13.5	3.5	13.920	ug/L	13.920	ppb	16:15:14
2	Fe 238.204 Radial†	6.4	-2.2	-60.841	ug/L	-60.841	ppb	16:15:14
2	K 766.490 Radial†	2188.3	107.4	49.182	ug/L	49.182	ppb	16:14:54
2	Mg 279.077 IEC†	0.1	-0.3	-31.720	ug/L	-31.720	ppb	16:15:14
2	Na 589.592 Radial†	-775.7	-5.0	-1.6608	ug/L	-1.6608	ppb	16:14:54
2	Sr 421.552†	20.1	-15.3	-0.1514	ug/L	-0.1514	ppb	16:14:54
2	Sc 361.383	857061.5	857061.5	102.67	%			16:16:16
2	Y 371.029	734374.3	734374.3	102.61	%			16:16:16
2	Ag 328.068†	151.0	-12.0	-0.0680	ug/L	-0.0680	ppb	16:16:22
2	As 188.979†	-13.7	2.7	1.4630	ug/L	1.4630	ppb	16:16:42
2	B 249.677†	-39.6	51.6	1.4703	ug/L	1.4703	ppb	16:16:42
2	Ba 233.527†	1077742.9	1049687.3	9803.5	ug/L	9803.5	ppb	16:16:16
2	Be 313.107†	-3550.5	154.4	0.0664	ug/L	0.0664	ppb	16:16:22
2	Cd 226.502†	-111.6	32.9	0.4795	ug/L	0.4795	ppb	16:16:42
2	Co 228.616†	-241.0	-191.2	-0.2370	ug/L	-0.2370	ppb	16:16:42
2	Cr 267.716†	82.6	14.7	0.1947	ug/L	0.1947	ppb	16:16:42
2	Cu 324.752†	6132.5	-97.6	-0.3097	ug/L	-0.3097	ppb	16:16:22
2	Mn 257.610†	392.8	-7.1	-0.0141	ug/L	-0.0141	ppb	16:16:42
2	Mo 202.031†	11.0	-3.0	-0.2653	ug/L	-0.2653	ppb	16:16:42
2	Ni 231.604†	67.5	12.7	0.4038	ug/L	0.4038	ppb	16:16:42

2	P 214.914†	169.9	-9.9	-7.4157 ug/L	-7.4157 ppb	16:16:42
2	Pb 220.353†	-41.4	3.6	0.5702 ug/L	0.5702 ppb	16:16:42
2	S 181.975 Axial†	29.5	-2.1	-3.7881 ug/L	-3.7881 ppb	16:16:42
2	Sb 206.836†	18.3	-10.7	-4.3947 ug/L	-4.3947 ppb	16:16:42
2	Se 196.026†	-13.8	5.8	4.5642 ug/L	4.5642 ppb	16:16:42
2	Si 251.611†	506.7	41.1	1.5259 ug/L	1.5259 ppb	16:16:42
2	Sn 189.927†	14.4	6.2	1.4242 ug/L	1.4242 ppb	16:16:42
2	Ti 334.940†	-1041.3	-53.9	-0.0813 ug/L	-0.0813 ppb	16:16:22
2	Tl 190.801†	-18.0	13.5	5.2585 ug/L	5.2585 ppb	16:16:42
2	U 409.014†	-2535.4	-466.2	-13.609 ug/L	-13.609 ppb	16:16:22
2	V 292.402†	-1261.9	17.8	0.1171 ug/L	0.1171 ppb	16:16:22
2	Zn 213.857†	555.9	39.0	0.4803 ug/L	0.4803 ppb	16:16:42
2	SiO2†	507.1	15.4	1.2185 ug/L	1.2185 ppb	16:17:52
3	Sc Radial	3336.3	3336.3	99.6 %		16:15:40
3	Y RADIAL	2738.9	2738.9	99.84 %		16:15:40
3	Al 396.153Radial†	-58.0	1.8	3.8633 ug/L	3.8633 ppb	16:15:40
3	Ca 317.933Radial†	13.8	3.7	14.607 ug/L	14.607 ppb	16:15:40
3	Fe 238.204 Radial†	7.8	-0.8	-22.946 ug/L	-22.946 ppb	16:15:40
3	K 766.490 Radial†	2340.1	235.5	107.79 ug/L	107.79 ppb	16:15:20
3	Mg 279.077 IEC†	2.7	2.3	221.29 ug/L	221.29 ppb	16:15:40
3	Na 589.592 Radial†	-709.4	70.2	23.460 ug/L	23.460 ppb	16:15:20
3	Sr 421.552†	-5.9	-41.6	-0.4126 ug/L	-0.4126 ppb	16:15:20
3	Sc 361.383	853091.1	853091.1	102.20 %		16:16:47
3	Y 371.029	732266.1	732266.1	102.32 %		16:16:47
3	Ag 328.068†	113.6	-48.0	-0.2379 ug/L	-0.2379 ppb	16:16:52
3	As 188.979†	-11.0	5.2	2.8618 ug/L	2.8618 ppb	16:17:12
3	B 249.677†	-20.0	70.6	1.9983 ug/L	1.9983 ppb	16:17:12
3	Ba 233.527†	1073623.5	1050541.8	9811.5 ug/L	9811.5 ppb	16:16:47
3	Be 313.107†	-3594.3	95.5	0.0412 ug/L	0.0412 ppb	16:16:52
3	Cd 226.502†	-122.3	21.9	0.3163 ug/L	0.3163 ppb	16:17:12
3	Co 228.616†	-250.8	-201.8	-0.5099 ug/L	-0.5099 ppb	16:17:12
3	Cr 267.716†	77.8	10.4	0.1395 ug/L	0.1395 ppb	16:17:12
3	Cu 324.752†	6271.1	65.8	0.2170 ug/L	0.2170 ppb	16:16:52
3	Mn 257.610†	402.3	3.9	-0.0061 ug/L	-0.0061 ppb	16:17:12
3	Mo 202.031†	14.6	0.5	0.0423 ug/L	0.0423 ppb	16:17:12
3	Ni 231.604†	43.9	-10.1	-0.3155 ug/L	-0.3155 ppb	16:17:12
3	P 214.914†	179.1	-0.1	-0.1305 ug/L	-0.1305 ppb	16:17:12
3	Pb 220.353†	-29.1	15.4	2.3960 ug/L	2.3960 ppb	16:17:12
3	S 181.975 Axial†	31.5	-0.0	-0.0662 ug/L	-0.0662 ppb	16:17:12
3	Sb 206.836†	18.5	-10.4	-4.3142 ug/L	-4.3142 ppb	16:17:12
3	Se 196.026†	-17.2	2.4	1.8619 ug/L	1.8619 ppb	16:17:12
3	Si 251.611†	499.0	35.9	1.3298 ug/L	1.3298 ppb	16:17:12
3	Sn 189.927†	5.2	-2.7	-0.6104 ug/L	-0.6104 ppb	16:17:12
3	Ti 334.940†	-983.0	-1.6	-0.0137 ug/L	-0.0137 ppb	16:16:52
3	Tl 190.801†	-19.2	12.3	4.8029 ug/L	4.8029 ppb	16:17:12
3	U 409.014†	-2462.6	-406.5	-11.867 ug/L	-11.867 ppb	16:16:52
3	V 292.402†	-1212.6	60.3	0.4560 ug/L	0.4560 ppb	16:16:52
3	Zn 213.857†	554.8	40.4	0.4952 ug/L	0.4952 ppb	16:17:12
3	SiO2†	509.2	19.7	1.5498 ug/L	1.5498 ppb	16:18:12

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852926.7	102.18	%	0.505				0.49%
Sc Radial	3317.2	99.0	%	0.55				0.55%
Y 371.029	731326.1	102.19	%	0.505				0.49%
Y RADIAL	2726.7	99.40	%	0.415				0.42%
Ag 328.068†	-19.2	-0.1007	ug/L	0.12415	-0.1007	ppb	0.12415	123.28%
Al 396.153Radial†	0.6	1.3708	ug/L	12.67354	1.3708	ppb	12.67354	924.50%
As 188.979†	5.2	2.8563	ug/L	1.39055	2.8563	ppb	1.39055	48.68%
B 249.677†	68.1	1.9320	ug/L	0.43249	1.9320	ppb	0.43249	22.38%
Ba 233.527†	1049567.3	9802.4	ug/L	9.71	9802.4	ppb	9.71	0.10%
Be 313.107†	119.8	0.0516	ug/L	0.01317	0.0516	ppb	0.01317	25.50%
Ca 317.933Radial†	4.2	16.852	ug/L	4.4971	16.852	ppb	4.4971	26.69%
Cd 226.502†	22.5	0.3282	ug/L	0.14579	0.3282	ppb	0.14579	44.43%
Co 228.616†	-197.3	-0.3980	ug/L	0.14288	-0.3980	ppb	0.14288	35.90%
Cr 267.716†	7.9	0.1067	ug/L	0.10817	0.1067	ppb	0.10817	101.36%
Cu 324.752†	-45.2	-0.1412	ug/L	0.31043	-0.1412	ppb	0.31043	219.79%
Fe 238.204 Radial†	-1.8	-49.289	ug/L	22.8717	-49.289	ppb	22.8717	46.40%
K 766.490 Radial†	144.9	66.312	ug/L	36.1015	66.312	ppb	36.1015	54.44%

Mg 279.077 IEC†	1.5	146.68	ug/L	155.185	146.68	ppb	155.185 105.80%
Mn 257.610†	1.9	-0.0083	ug/L	0.00501	-0.0083	ppb	0.00501 60.24%
Mo 202.031†	-1.3	-0.1170	ug/L	0.15407	-0.1170	ppb	0.15407 131.72%
Na 589.592 Radial†	33.7	11.242	ug/L	12.5745	11.242	ppb	12.5745 111.86%
Ni 231.604†	17.1	0.5418	ug/L	0.93393	0.5418	ppb	0.93393 172.38%
P 214.914†	-7.2	-5.3696	ug/L	4.57332	-5.3696	ppb	4.57332 85.17%
Pb 220.353†	11.0	1.7136	ug/L	0.99638	1.7136	ppb	0.99638 58.14%
S 181.975 Axial†	-0.9	-1.6147	ug/L	1.93801	-1.6147	ppb	1.93801 120.02%
Sb 206.836†	-7.8	-3.2416	ug/L	1.92799	-3.2416	ppb	1.92799 59.48%
Se 196.026†	4.9	3.8403	ug/L	1.73368	3.8403	ppb	1.73368 45.14%
Si 251.611†	37.6	1.3959	ug/L	0.11256	1.3959	ppb	0.11256 8.06%
Sn 189.927†	1.8	0.4261	ug/L	1.01787	0.4261	ppb	1.01787 238.86%
Sr 421.552†	-21.0	-0.2084	ug/L	0.18255	-0.2084	ppb	0.18255 87.62%
Ti 334.940†	-16.7	-0.0329	ug/L	0.04221	-0.0329	ppb	0.04221 128.24%
Tl 190.801†	10.1	3.9357	ug/L	1.91015	3.9357	ppb	1.91015 48.53%
U 409.014†	-412.8	-12.050	ug/L	1.4762	-12.050	ppb	1.4762 12.25%
V 292.402†	63.4	0.4804	ug/L	0.37604	0.4804	ppb	0.37604 78.28%
Zn 213.857†	38.7	0.4735	ug/L	0.02587	0.4735	ppb	0.02587 5.47%
SiO2†	18.7	1.4706	ug/L	0.22332	1.4706	ppb	0.22332 15.19%

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/9/2010 16:20:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3204.0	3204.0	95.6	%			16:22:36
1	Y RADIAL	2614.2	2614.2	95.29	%			16:22:36
1	Al 396.153Radial†	2294.5	2459.4	5261.9	ug/L	5261.9	ppb	16:22:16
1	Ca 317.933Radial†	1301.4	1350.7	5360.4	ug/L	5360.4	ppb	16:22:36
1	Fe 238.204 Radial†	196.7	197.0	5492.0	ug/L	5492.0	ppb	16:22:36
1	K 766.490 Radial†	12968.8	11447.2	5233.4	ug/L	5233.4	ppb	16:22:16
1	Mg 279.077 IEC†	51.7	53.6	5203.7	ug/L	5203.7	ppb	16:22:36
1	Na 589.592 Radial†	30190.8	32353.4	10805	ug/L	10805	ppb	16:22:16
1	Sr 421.552†	53229.0	55626.3	551.55	ug/L	551.55	ppb	16:22:16
1	Sc 361.383	860973.5	860973.5	103.14	%			16:23:33
1	Y 371.029	729107.9	729107.9	101.88	%			16:23:33
1	Ag 328.068†	101030.6	97793.7	497.29	ug/L	497.29	ppb	16:23:38
1	As 188.979†	910.9	899.1	504.11	ug/L	504.11	ppb	16:23:58
1	B 249.677†	18037.1	17577.8	490.42	ug/L	490.42	ppb	16:23:38
1	Ba 233.527†	54391.2	52741.4	493.83	ug/L	493.83	ppb	16:23:38
1	Be 313.107†	1176285.1	1144063.5	494.84	ug/L	494.84	ppb	16:23:33
1	Cd 226.502†	35173.9	34243.9	494.86	ug/L	494.86	ppb	16:23:38
1	Co 228.616†	19926.0	19362.5	502.22	ug/L	502.22	ppb	16:23:38
1	Cr 267.716†	39091.2	37834.6	494.23	ug/L	494.23	ppb	16:23:38
1	Cu 324.752†	164013.4	152946.5	492.22	ug/L	492.22	ppb	16:23:38
1	Mn 257.610†	386239.6	374083.6	490.53	ug/L	490.53	ppb	16:23:33
1	Mo 202.031†	5888.1	5694.9	492.04	ug/L	492.04	ppb	16:23:58
1	Ni 231.604†	16492.4	15937.0	502.01	ug/L	502.01	ppb	16:23:38
1	P 214.914†	3522.0	3239.4	2364.1	ug/L	2364.1	ppb	16:23:58
1	Pb 220.353†	3248.4	3193.4	495.88	ug/L	495.88	ppb	16:23:58
1	S 181.975 Axial†	597.2	548.1	976.65	ug/L	976.65	ppb	16:23:58
1	Sb 206.836†	1256.2	1189.4	510.57	ug/L	510.57	ppb	16:23:58
1	Se 196.026†	607.6	608.3	513.05	ug/L	513.05	ppb	16:23:58
1	Si 251.611†	69274.2	66711.5	2467.5	ug/L	2467.5	ppb	16:23:38
1	Sn 189.927†	2245.4	2169.2	493.55	ug/L	493.55	ppb	16:23:58
1	Ti 334.940†	292560.8	284608.5	483.62	ug/L	483.62	ppb	16:23:38
1	Tl 190.801†	1284.1	1276.1	498.21	ug/L	498.21	ppb	16:23:58
1	U 409.014†	15780.1	17302.5	503.55	ug/L	503.55	ppb	16:23:38
1	V 292.402†	63927.8	63227.1	500.09	ug/L	500.09	ppb	16:23:38
1	Zn 213.857†	42718.2	40914.4	491.75	ug/L	491.75	ppb	16:23:38
1	SiO2†	69545.4	66948.3	5245.7	ug/L	5245.7	ppb	16:25:06
2	Sc Radial	3430.3	3430.3	102	%			16:23:01
2	Y RADIAL	2787.3	2787.3	101.6	%			16:23:01
2	Al 396.153Radial†	2289.4	2296.1	4910.5	ug/L	4910.5	ppb	16:22:41
2	Ca 317.933Radial†	1280.3	1240.2	4921.9	ug/L	4921.9	ppb	16:23:01
2	Fe 238.204 Radial†	190.8	177.7	4954.6	ug/L	4954.6	ppb	16:23:01
2	K 766.490 Radial†	13072.8	10653.8	4870.6	ug/L	4870.6	ppb	16:22:41
2	Mg 279.077 IEC†	54.1	52.4	5082.0	ug/L	5082.0	ppb	16:23:01
2	Na 589.592 Radial†	30333.5	30409.2	10155	ug/L	10155	ppb	16:22:41
2	Sr 421.552†	53169.3	51894.7	514.55	ug/L	514.55	ppb	16:22:41
2	Sc 361.383	848974.4	848974.4	101.70	%			16:24:04
2	Y 371.029	718842.0	718842.0	100.44	%			16:24:04
2	Ag 328.068†	100485.6	98642.3	501.43	ug/L	501.43	ppb	16:24:09
2	As 188.979†	905.5	906.3	507.99	ug/L	507.99	ppb	16:24:30
2	B 249.677†	17950.5	17739.9	495.03	ug/L	495.03	ppb	16:24:09
2	Ba 233.527†	54376.0	53471.8	500.64	ug/L	500.64	ppb	16:24:09
2	Be 313.107†	1172502.6	1156463.0	500.20	ug/L	500.20	ppb	16:24:04
2	Cd 226.502†	35165.7	34717.9	501.77	ug/L	501.77	ppb	16:24:09
2	Co 228.616†	19989.4	19698.0	510.94	ug/L	510.94	ppb	16:24:09
2	Cr 267.716†	39019.8	38300.0	500.28	ug/L	500.28	ppb	16:24:09
2	Cu 324.752†	162411.0	153618.4	494.35	ug/L	494.35	ppb	16:24:09
2	Mn 257.610†	385827.4	378970.9	496.89	ug/L	496.89	ppb	16:24:04
2	Mo 202.031†	5890.5	5778.0	499.16	ug/L	499.16	ppb	16:24:30
2	Ni 231.604†	16482.9	16153.6	508.84	ug/L	508.84	ppb	16:24:09

2	P 214.914†	3522.8	3288.4	2401.4 ug/L	2401.4 ppb	16:24:30
2	Pb 220.353†	3256.0	3245.3	503.94 ug/L	503.94 ppb	16:24:30
2	S 181.975 Axial†	600.9	560.0	997.94 ug/L	997.94 ppb	16:24:30
2	Sb 206.836†	1249.9	1200.4	515.45 ug/L	515.45 ppb	16:24:30
2	Se 196.026†	601.0	610.1	512.94 ug/L	512.94 ppb	16:24:30
2	Si 251.611†	68972.0	67363.6	2491.6 ug/L	2491.6 ppb	16:24:09
2	Sn 189.927†	2255.1	2209.5	502.66 ug/L	502.66 ppb	16:24:30
2	Ti 334.940†	291460.8	287535.9	488.54 ug/L	488.54 ppb	16:24:09
2	Tl 190.801†	1287.2	1296.7	506.22 ug/L	506.22 ppb	16:24:30
2	U 409.014†	15698.0	17438.0	507.55 ug/L	507.55 ppb	16:24:09
2	V 292.402†	63607.8	63788.4	504.65 ug/L	504.65 ppb	16:24:09
2	Zn 213.857†	42656.6	41439.2	498.15 ug/L	498.15 ppb	16:24:09
2	SiO2†	68774.3	67143.1	5260.8 ug/L	5260.8 ppb	16:25:11
3	Sc Radial	3377.4	3377.4	101 %		16:23:26
3	Y RADIAL	2748.1	2748.1	100.2 %		16:23:26
3	Al 396.153Radial†	2252.5	2294.5	4906.9 ug/L	4906.9 ppb	16:23:06
3	Ca 317.933Radial†	1280.2	1259.8	4999.5 ug/L	4999.5 ppb	16:23:26
3	Fe 238.204 Radial†	192.8	182.6	5091.9 ug/L	5091.9 ppb	16:23:26
3	K 766.490 Radial†	12836.3	10619.2	4854.7 ug/L	4854.7 ppb	16:23:06
3	Mg 279.077 IEC†	54.3	53.4	5180.9 ug/L	5180.9 ppb	16:23:26
3	Na 589.592 Radial†	29878.4	30422.1	10160 ug/L	10160 ppb	16:23:06
3	Sr 421.552†	52462.5	52007.3	515.67 ug/L	515.67 ppb	16:23:06
3	Sc 361.383	849087.1	849087.1	101.72 %		16:24:35
3	Y 371.029	717985.5	717985.5	100.32 %		16:24:35
3	Ag 328.068†	101539.4	99665.2	506.66 ug/L	506.66 ppb	16:24:40
3	As 188.979†	916.7	917.2	514.14 ug/L	514.14 ppb	16:25:01
3	B 249.677†	18275.7	18057.2	503.89 ug/L	503.89 ppb	16:24:40
3	Ba 233.527†	55027.2	54104.9	506.57 ug/L	506.57 ppb	16:24:40
3	Be 313.107†	1177113.9	1160843.5	502.10 ug/L	502.10 ppb	16:24:35
3	Cd 226.502†	35489.2	35031.3	506.29 ug/L	506.29 ppb	16:24:40
3	Co 228.616†	20199.6	19902.0	516.22 ug/L	516.22 ppb	16:24:40
3	Cr 267.716†	39393.8	38662.7	505.02 ug/L	505.02 ppb	16:24:40
3	Cu 324.752†	164368.1	155521.3	500.48 ug/L	500.48 ppb	16:24:40
3	Mn 257.610†	388254.6	381306.8	499.96 ug/L	499.96 ppb	16:24:35
3	Mo 202.031†	5935.8	5821.8	502.95 ug/L	502.95 ppb	16:25:01
3	Ni 231.604†	16674.0	16339.3	514.69 ug/L	514.69 ppb	16:24:40
3	P 214.914†	3554.7	3319.3	2423.5 ug/L	2423.5 ppb	16:25:01
3	Pb 220.353†	3292.6	3280.9	509.44 ug/L	509.44 ppb	16:25:01
3	S 181.975 Axial†	607.5	566.4	1009.3 ug/L	1009.3 ppb	16:25:01
3	Sb 206.836†	1263.8	1214.0	521.17 ug/L	521.17 ppb	16:25:01
3	Se 196.026†	617.9	626.7	526.81 ug/L	526.81 ppb	16:25:01
3	Si 251.611†	69682.6	68053.2	2517.1 ug/L	2517.1 ppb	16:24:40
3	Sn 189.927†	2261.3	2215.3	503.98 ug/L	503.98 ppb	16:25:01
3	Ti 334.940†	294867.9	290847.4	494.17 ug/L	494.17 ppb	16:24:40
3	Tl 190.801†	1285.9	1295.3	505.71 ug/L	505.71 ppb	16:25:01
3	U 409.014†	15903.6	17638.1	513.37 ug/L	513.37 ppb	16:24:40
3	V 292.402†	64229.4	64391.2	509.39 ug/L	509.39 ppb	16:24:40
3	Zn 213.857†	43061.3	41831.5	502.84 ug/L	502.84 ppb	16:24:40
3	SiO2†	70313.8	68647.6	5378.9 ug/L	5378.9 ppb	16:25:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	853011.7	102.19	%	0.826				0.81%
Sc Radial	3337.2	99.6	%	3.53				3.55%
Y 371.029	721978.5	100.88	%	0.865				0.86%
Y RADIAL	2716.5	99.02	%	3.309				3.34%
Ag 328.068†	98700.4	501.79	ug/L	4.693	501.79	ppb	4.693	0.94%
QC value within limits for Ag 328.068 Recovery = 100.36%								
Al 396.153Radial†	2350.0	5026.4	ug/L	203.92	5026.4	ppb	203.92	4.06%
QC value within limits for Al 396.153Radial Recovery = 100.53%								
As 188.979†	907.5	508.74	ug/L	5.058	508.74	ppb	5.058	0.99%
QC value within limits for As 188.979 Recovery = 101.75%								
B 249.677†	17791.6	496.45	ug/L	6.842	496.45	ppb	6.842	1.38%
QC value within limits for B 249.677 Recovery = 99.29%								
Ba 233.527†	53439.3	500.35	ug/L	6.376	500.35	ppb	6.376	1.27%
QC value within limits for Ba 233.527 Recovery = 100.07%								
Be 313.107†	1153790.0	499.05	ug/L	3.768	499.05	ppb	3.768	0.75%
QC value within limits for Be 313.107 Recovery = 99.81%								
Ca 317.933Radial†	1283.6	5093.9	ug/L	234.01	5093.9	ppb	234.01	4.59%

```
   QC value within limits for Ca 317.933Radial  Recovery = 101.88%
Cd 226.502†            34664.4      500.98 ug/L         5.758      500.98 ppb          5.758   1.15%
   QC value within limits for Cd 226.502  Recovery = 100.20%
Co 228.616†            19654.1      509.79 ug/L         7.070      509.79 ppb          7.070   1.39%
   QC value within limits for Co 228.616  Recovery = 101.96%
Cr 267.716†            38265.8      499.84 ug/L         5.410      499.84 ppb          5.410   1.08%
   QC value within limits for Cr 267.716  Recovery = 99.97%
Cu 324.752†           154028.7      495.68 ug/L         4.288      495.68 ppb          4.288   0.87%
   QC value within limits for Cu 324.752  Recovery = 99.14%
Fe 238.204 Radial†       185.8      5179.5 ug/L        279.18      5179.5 ppb         279.18   5.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.59%
K 766.490 Radial†      10906.7      4986.2 ug/L        214.19      4986.2 ppb         214.19   4.30%
   QC value within limits for K 766.490 Radial  Recovery = 99.72%
Mg 279.077 IEC†           53.1      5155.5 ug/L         64.70      5155.5 ppb          64.70   1.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.11%
Mn 257.610†           378120.4      495.80 ug/L         4.808      495.80 ppb          4.808   0.97%
   QC value within limits for Mn 257.610  Recovery = 99.16%
Mo 202.031†            5764.9      498.05 ug/L         5.543      498.05 ppb          5.543   1.11%
   QC value within limits for Mo 202.031  Recovery = 99.61%
Na 589.592 Radial†     31061.6       10373 ug/L         373.6       10373 ppb          373.6   3.60%
   QC value within limits for Na 589.592 Radial  Recovery = 103.73%
Ni 231.604†            16143.3      508.51 ug/L         6.343      508.51 ppb          6.343   1.25%
   QC value within limits for Ni 231.604  Recovery = 101.70%
P 214.914†             3282.3      2396.3 ug/L         30.02      2396.3 ppb          30.02   1.25%
   QC value within limits for P 214.914  Recovery = 95.85%
Pb 220.353†            3239.9      503.09 ug/L         6.820      503.09 ppb          6.820   1.36%
   QC value within limits for Pb 220.353  Recovery = 100.62%
S 181.975 Axial†         558.2      994.62 ug/L        16.562      994.62 ppb         16.562   1.67%
   QC value within limits for S 181.975 Axial  Recovery = 99.46%
Sb 206.836†            1201.3      515.73 ug/L         5.307      515.73 ppb          5.307   1.03%
   QC value within limits for Sb 206.836  Recovery = 103.15%
Se 196.026†             615.0      517.60 ug/L         7.973      517.60 ppb          7.973   1.54%
   QC value within limits for Se 196.026  Recovery = 103.52%
Si 251.611†           67376.1      2492.1 ug/L         24.81      2492.1 ppb          24.81   1.00%
   QC value within limits for Si 251.611  Recovery = 99.68%
Sn 189.927†            2198.0      500.06 ug/L         5.681      500.06 ppb          5.681   1.14%
   QC value within limits for Sn 189.927  Recovery = 100.01%
Sr 421.552†           53176.1      527.26 ug/L        21.047      527.26 ppb         21.047   3.99%
   QC value within limits for Sr 421.552  Recovery = 105.45%
Ti 334.940†          287664.0      488.78 ug/L         5.278      488.78 ppb          5.278   1.08%
   QC value within limits for Ti 334.940  Recovery = 97.76%
Tl 190.801†            1289.3      503.38 ug/L         4.486      503.38 ppb          4.486   0.89%
   QC value within limits for Tl 190.801  Recovery = 100.68%
U 409.014†            17459.5      508.15 ug/L         4.939      508.15 ppb          4.939   0.97%
   QC value within limits for U 409.014  Recovery = 101.63%
V 292.402†            63802.2      504.71 ug/L         4.652      504.71 ppb          4.652   0.92%
   QC value within limits for V 292.402  Recovery = 100.94%
Zn 213.857†           41395.0      497.58 ug/L         5.570      497.58 ppb          5.570   1.12%
   QC value within limits for Zn 213.857  Recovery = 99.52%
SiO2†                 67579.7      5295.1 ug/L         72.93      5295.1 ppb          72.93   1.38%
   QC value within limits for SiO2  Recovery = 99.02%
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/9/2010 16:27:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3333.1	3333.1	99.5	%			16:29:39
1	Y RADIAL	2727.4	2727.4	99.42	%			16:29:39
1	Al 396.153Radial†	-62.6	-2.9	-6.1907	ug/L	-6.1907	ppb	16:29:39
1	Ca 317.933Radial†	10.6	0.5	1.8916	ug/L	1.8916	ppb	16:29:39
1	Fe 238.204 Radial†	5.5	-3.1	-85.717	ug/L	-85.717	ppb	16:29:39
1	K 766.490 Radial†	2183.3	80.3	36.739	ug/L	36.739	ppb	16:29:19
1	Mg 279.077 IEC†	0.9	0.5	48.528	ug/L	48.528	ppb	16:29:39
1	Na 589.592 Radial†	-790.8	-12.3	-4.1106	ug/L	-4.1106	ppb	16:29:19
1	Sr 421.552†	22.1	-13.4	-0.1330	ug/L	-0.1330	ppb	16:29:19
1	Sc 361.383	845433.5	845433.5	101.28	%			16:30:36
1	Y 371.029	725453.1	725453.1	101.37	%			16:30:36
1	Ag 328.068†	149.5	-11.5	-0.0840	ug/L	-0.0840	ppb	16:30:36
1	As 188.979†	-15.2	1.0	0.5128	ug/L	0.5128	ppb	16:30:56
1	B 249.677†	-6.9	83.4	2.3498	ug/L	2.3498	ppb	16:30:56
1	Ba 233.527†	21.9	28.8	0.2668	ug/L	0.2668	ppb	16:30:56
1	Be 313.107†	-3620.9	37.4	0.0160	ug/L	0.0160	ppb	16:30:36
1	Cd 226.502†	-146.3	-2.8	-0.0324	ug/L	-0.0324	ppb	16:30:56
1	Co 228.616†	-35.7	8.3	0.2155	ug/L	0.2155	ppb	16:30:56
1	Cr 267.716†	60.3	-6.2	-0.0839	ug/L	-0.0839	ppb	16:30:56
1	Cu 324.752†	6207.7	58.8	0.1849	ug/L	0.1849	ppb	16:30:36
1	Mn 257.610†	375.1	-19.3	-0.0357	ug/L	-0.0357	ppb	16:30:56
1	Mo 202.031†	7.6	-6.3	-0.5514	ug/L	-0.5514	ppb	16:30:56
1	Ni 231.604†	56.4	2.7	0.0843	ug/L	0.0843	ppb	16:30:56
1	P 214.914†	178.4	0.7	0.5984	ug/L	0.5984	ppb	16:30:56
1	Pb 220.353†	-25.6	18.7	2.9039	ug/L	2.9039	ppb	16:30:56
1	S 181.975 Axial†	31.2	-0.1	-0.1125	ug/L	-0.1125	ppb	16:30:56
1	Sb 206.836†	41.6	12.6	5.2230	ug/L	5.2230	ppb	16:30:56
1	Se 196.026†	-20.2	-0.7	-0.8290	ug/L	-0.8290	ppb	16:30:56
1	Si 251.611†	484.6	26.0	0.9725	ug/L	0.9725	ppb	16:30:56
1	Sn 189.927†	12.8	4.8	1.0909	ug/L	1.0909	ppb	16:30:56
1	Ti 334.940†	-1004.9	-31.9	-0.0576	ug/L	-0.0576	ppb	16:30:36
1	Tl 190.801†	-21.9	9.4	3.6590	ug/L	3.6590	ppb	16:30:56
1	U 409.014†	-2049.1	-20.0	-0.5751	ug/L	-0.5751	ppb	16:30:36
1	V 292.402†	-1256.8	5.9	0.0504	ug/L	0.0504	ppb	16:30:36
1	Zn 213.857†	515.1	6.1	0.0862	ug/L	0.0862	ppb	16:30:56
1	SiO2†	484.6	-0.0	0.0130	ug/L	0.0130	ppb	16:32:07
2	Sc Radial	3326.9	3326.9	99.3	%			16:30:04
2	Y RADIAL	2708.7	2708.7	98.74	%			16:30:04
2	Al 396.153Radial†	-60.9	-1.3	-2.8866	ug/L	-2.8866	ppb	16:30:04
2	Ca 317.933Radial†	8.9	-1.3	-5.1379	ug/L	-5.1379	ppb	16:30:04
2	Fe 238.204 Radial†	10.9	2.4	65.876	ug/L	65.876	ppb	16:30:04
2	K 766.490 Radial†	2202.0	103.2	47.237	ug/L	47.237	ppb	16:29:44
2	Mg 279.077 IEC†	0.3	-0.2	-17.178	ug/L	-17.178	ppb	16:30:04
2	Na 589.592 Radial†	-755.3	22.0	7.3424	ug/L	7.3424	ppb	16:29:44
2	Sr 421.552†	20.4	-15.1	-0.1495	ug/L	-0.1495	ppb	16:29:44
2	Sc 361.383	832564.5	832564.5	99.739	%			16:31:01
2	Y 371.029	714250.3	714250.3	99.802	%			16:31:01
2	Ag 328.068†	101.3	-57.5	-0.2671	ug/L	-0.2671	ppb	16:31:01
2	As 188.979†	-16.2	-0.2	-0.1134	ug/L	-0.1134	ppb	16:31:21
2	B 249.677†	-30.5	59.6	1.6610	ug/L	1.6610	ppb	16:31:21
2	Ba 233.527†	8.9	16.1	0.1540	ug/L	0.1540	ppb	16:31:21
2	Be 313.107†	-3508.2	95.2	0.0412	ug/L	0.0412	ppb	16:31:01
2	Cd 226.502†	-146.4	-5.2	-0.0815	ug/L	-0.0815	ppb	16:31:21
2	Co 228.616†	-39.1	4.3	0.1112	ug/L	0.1112	ppb	16:31:21
2	Cr 267.716†	76.0	10.4	0.1398	ug/L	0.1398	ppb	16:31:21
2	Cu 324.752†	6089.3	34.8	0.1157	ug/L	0.1157	ppb	16:31:01
2	Mn 257.610†	399.5	10.8	0.0214	ug/L	0.0214	ppb	16:31:21
2	Mo 202.031†	16.6	2.8	0.2495	ug/L	0.2495	ppb	16:31:21
2	Ni 231.604†	55.2	2.3	0.0719	ug/L	0.0719	ppb	16:31:21

2	P 214.914†	171.7	-3.2	-2.5399 ug/L	-2.5399 ppb	16:31:21
2	Pb 220.353†	-43.2	0.6	0.0872 ug/L	0.0872 ppb	16:31:21
2	S 181.975 Axial†	32.7	1.9	3.4197 ug/L	3.4197 ppb	16:31:21
2	Sb 206.836†	29.6	1.2	0.5112 ug/L	0.5112 ppb	16:31:21
2	Se 196.026†	-18.4	0.8	0.8287 ug/L	0.8287 ppb	16:31:21
2	Si 251.611†	468.0	16.9	0.6220 ug/L	0.6220 ppb	16:31:21
2	Sn 189.927†	9.1	1.3	0.3004 ug/L	0.3004 ppb	16:31:21
2	Ti 334.940†	-926.6	31.3	0.0540 ug/L	0.0540 ppb	16:31:01
2	Tl 190.801†	-29.3	1.7	0.6457 ug/L	0.6457 ppb	16:31:21
2	U 409.014†	-2008.6	-10.7	-0.3194 ug/L	-0.3194 ppb	16:31:01
2	V 292.402†	-1162.3	81.4	0.6284 ug/L	0.6284 ppb	16:31:01
2	Zn 213.857†	521.5	20.4	0.2374 ug/L	0.2374 ppb	16:31:21
2	SiO2†	513.3	36.2	2.8375 ug/L	2.8375 ppb	16:32:27
3	Sc Radial	3311.0	3311.0	98.8 %		16:30:29
3	Y RADIAL	2710.3	2710.3	98.80 %		16:30:29
3	Al 396.153Radial†	-69.0	-9.8	-20.940 ug/L	-20.940 ppb	16:30:29
3	Ca 317.933Radial†	10.9	0.8	3.1870 ug/L	3.1870 ppb	16:30:29
3	Fe 238.204 Radial†	7.0	-1.5	-42.219 ug/L	-42.219 ppb	16:30:29
3	K 766.490 Radial†	2173.7	85.2	39.010 ug/L	39.010 ppb	16:30:09
3	Mg 279.077 IEC†	2.0	1.6	152.31 ug/L	152.31 ppb	16:30:29
3	Na 589.592 Radial†	-752.2	21.5	7.1635 ug/L	7.1635 ppb	16:30:09
3	Sr 421.552†	-1.7	-37.4	-0.3705 ug/L	-0.3705 ppb	16:30:09
3	Sc 361.383	848973.3	848973.3	101.70 %		16:31:26
3	Y 371.029	726964.3	726964.3	101.58 %		16:31:26
3	Ag 328.068†	130.8	-30.4	-0.1668 ug/L	-0.1668 ppb	16:31:26
3	As 188.979†	-18.2	-2.0	-1.0957 ug/L	-1.0957 ppb	16:31:46
3	B 249.677†	-16.7	73.8	2.0757 ug/L	2.0757 ppb	16:31:46
3	Ba 233.527†	17.3	24.2	0.2253 ug/L	0.2253 ppb	16:31:46
3	Be 313.107†	-3558.4	113.8	0.0492 ug/L	0.0492 ppb	16:31:26
3	Cd 226.502†	-143.0	0.9	0.0182 ug/L	0.0182 ppb	16:31:46
3	Co 228.616†	-39.7	4.6	0.1169 ug/L	0.1169 ppb	16:31:46
3	Cr 267.716†	78.8	11.7	0.1508 ug/L	0.1508 ppb	16:31:46
3	Cu 324.752†	6131.3	-41.9	-0.1380 ug/L	-0.1380 ppb	16:31:26
3	Mn 257.610†	379.9	-16.2	-0.0316 ug/L	-0.0316 ppb	16:31:46
3	Mo 202.031†	5.5	-8.4	-0.7271 ug/L	-0.7271 ppb	16:31:46
3	Ni 231.604†	60.1	6.0	0.1903 ug/L	0.1903 ppb	16:31:46
3	P 214.914†	180.4	2.0	1.5401 ug/L	1.5401 ppb	16:31:46
3	Pb 220.353†	-32.6	11.8	1.8325 ug/L	1.8325 ppb	16:31:46
3	S 181.975 Axial†	29.8	-1.6	-2.7759 ug/L	-2.7759 ppb	16:31:46
3	Sb 206.836†	28.0	-0.9	-0.3928 ug/L	-0.3928 ppb	16:31:46
3	Se 196.026†	-16.6	2.9	2.2353 ug/L	2.2353 ppb	16:31:46
3	Si 251.611†	497.4	36.6	1.3665 ug/L	1.3665 ppb	16:31:46
3	Sn 189.927†	7.8	-0.2	-0.0337 ug/L	-0.0337 ppb	16:31:46
3	Ti 334.940†	-952.3	23.9	0.0278 ug/L	0.0278 ppb	16:31:26
3	Tl 190.801†	-23.8	7.6	2.9559 ug/L	2.9559 ppb	16:31:46
3	U 409.014†	-1977.4	58.9	1.7243 ug/L	1.7243 ppb	16:31:26
3	V 292.402†	-1218.8	48.4	0.3798 ug/L	0.3798 ppb	16:31:26
3	Zn 213.857†	521.0	9.8	0.1244 ug/L	0.1244 ppb	16:31:46
3	SiO2†	527.9	40.6	3.2077 ug/L	3.2077 ppb	16:32:47

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842323.8	100.91	%	1.034				1.03%
Sc Radial	3323.6	99.2	%	0.34				0.34%
Y 371.029	722222.6	100.92	%	0.970				0.96%
Y RADIAL	2715.5	98.99	%	0.379				0.38%
Ag 328.068†	-33.1	-0.1726	ug/L	0.09173	-0.1726	ppb	0.09173	53.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.7	-10.006	ug/L	9.6123	-10.006	ppb	9.6123	96.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.4	-0.2321	ug/L	0.81076	-0.2321	ppb	0.81076	349.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	72.3	2.0289	ug/L	0.34678	2.0289	ppb	0.34678	17.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.0	0.2154	ug/L	0.05709	0.2154	ppb	0.05709	26.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	82.1	0.0355	ug/L	0.01732	0.0355	ppb	0.01732	48.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.0	-0.0198	ug/L	4.47951	-0.0198	ppb	4.47951	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -2.4     -0.0319 ug/L       0.04984     -0.0319 ppb        0.04984 156.22%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               5.7      0.1479 ug/L       0.05861      0.1479 ppb        0.05861  39.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               5.3      0.0689 ug/L       0.13246      0.0689 ppb        0.13246 192.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              17.2      0.0542 ug/L       0.17001      0.0542 ppb        0.17001 313.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -20.686 ug/L      78.0565     -20.686 ppb       78.0565 377.33%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        89.6      40.995 ug/L       5.5230      40.995 ppb        5.5230  13.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.6      61.218 ug/L      85.4513      61.218 ppb       85.4513 139.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -8.2     -0.0153 ug/L       0.03188     -0.0153 ppb        0.03188 208.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -4.0     -0.3430 ug/L       0.52062     -0.3430 ppb        0.52062 151.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       10.4      3.4651 ug/L       6.56136      3.4651 ppb        6.56136 189.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               3.7      0.1155 ug/L       0.06506      0.1155 ppb        0.06506  56.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.2     -0.1338 ug/L       2.13629     -0.1338 ppb        2.13629 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              10.4      1.6078 ug/L       1.42171      1.6078 ppb        1.42171  88.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.1      0.1771 ug/L       3.10794      0.1771 ppb        3.10794 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.3      1.7805 ug/L       3.01536      1.7805 ppb        3.01536 169.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.0      0.7450 ug/L       1.53383      0.7450 ppb        1.53383 205.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              26.5      0.9870 ug/L       0.37247      0.9870 ppb        0.37247  37.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.0      0.4525 ug/L       0.57752      0.4525 ppb        0.57752 127.62%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -22.0     -0.2177 ug/L       0.13257     -0.2177 ppb        0.13257  60.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               7.8      0.0081 ug/L       0.05835      0.0081 ppb        0.05835 724.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.2      2.4202 ug/L       1.57647      2.4202 ppb        1.57647  65.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                9.4      0.2766 ug/L       1.26028      0.2766 ppb        1.26028 455.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               45.2      0.3528 ug/L       0.28995      0.3528 ppb        0.28995  82.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              12.1      0.1493 ug/L       0.07862      0.1493 ppb        0.07862  52.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    25.6      2.0194 ug/L       1.74742      2.0194 ppb        1.74742  86.53%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/9/2010 17:24:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3340.4	3340.4	99.7	%			17:26:39
1	Y RADIAL	2718.4	2718.4	99.09	%			17:26:39
1	Al 396.153Radial†	2260.5	2327.3	4977.9	ug/L	4977.9	ppb	17:26:19
1	Ca 317.933Radial†	1291.8	1285.5	5101.5	ug/L	5101.5	ppb	17:26:39
1	Fe 238.204 Radial†	190.1	182.1	5075.7	ug/L	5075.7	ppb	17:26:39
1	K 766.490 Radial†	12938.9	10863.3	4966.5	ug/L	4966.5	ppb	17:26:19
1	Mg 279.077 IEC†	54.2	53.9	5230.6	ug/L	5230.6	ppb	17:26:39
1	Na 589.592 Radial†	28946.9	29816.3	9957.3	ug/L	9957.3	ppb	17:26:19
1	Sr 421.552†	51682.5	51801.7	513.63	ug/L	513.63	ppb	17:26:19
1	Sc 361.383	857291.7	857291.7	102.70	%			17:27:36
1	Y 371.029	725102.7	725102.7	101.32	%			17:27:36
1	Ag 328.068†	101251.2	98429.2	500.38	ug/L	500.38	ppb	17:27:42
1	As 188.979†	900.5	892.7	500.49	ug/L	500.49	ppb	17:28:02
1	B 249.677†	17796.7	17418.9	486.03	ug/L	486.03	ppb	17:27:42
1	Ba 233.527†	54541.2	53113.9	497.30	ug/L	497.30	ppb	17:27:42
1	Be 313.107†	1169472.3	1142327.7	494.09	ug/L	494.09	ppb	17:27:36
1	Cd 226.502†	35161.6	34378.4	496.85	ug/L	496.85	ppb	17:27:42
1	Co 228.616†	19933.5	19452.8	504.57	ug/L	504.57	ppb	17:27:42
1	Cr 267.716†	39067.9	37974.6	496.04	ug/L	496.04	ppb	17:27:42
1	Cu 324.752†	163919.1	153537.6	494.10	ug/L	494.10	ppb	17:27:42
1	Mn 257.610†	382275.3	371831.8	487.54	ug/L	487.54	ppb	17:27:42
1	Mo 202.031†	5891.1	5722.4	494.37	ug/L	494.37	ppb	17:28:02
1	Ni 231.604†	16545.6	16057.4	505.81	ug/L	505.81	ppb	17:27:42
1	P 214.914†	3511.5	3243.8	2367.4	ug/L	2367.4	ppb	17:28:02
1	Pb 220.353†	3250.8	3209.2	498.34	ug/L	498.34	ppb	17:28:02
1	S 181.975 Axial†	597.6	551.0	981.88	ug/L	981.88	ppb	17:28:02
1	Sb 206.836†	1251.0	1189.7	510.80	ug/L	510.80	ppb	17:28:02
1	Se 196.026†	608.1	611.3	514.24	ug/L	514.24	ppb	17:28:02
1	Si 251.611†	69467.9	67188.5	2485.2	ug/L	2485.2	ppb	17:27:42
1	Sn 189.927†	2254.1	2187.0	497.58	ug/L	497.58	ppb	17:28:02
1	Ti 334.940†	292824.1	286083.1	486.09	ug/L	486.09	ppb	17:27:42
1	Tl 190.801†	1290.9	1288.0	502.82	ug/L	502.82	ppb	17:28:02
1	U 409.014†	15824.3	17411.3	506.77	ug/L	506.77	ppb	17:27:42
1	V 292.402†	63792.7	63361.7	501.23	ug/L	501.23	ppb	17:27:42
1	Zn 213.857†	42887.5	41257.1	495.94	ug/L	495.94	ppb	17:27:42
1	SiO2†	69855.2	67539.5	5292.0	ug/L	5292.0	ppb	17:29:09
2	Sc Radial	3297.2	3297.2	98.4	%			17:27:04
2	Y RADIAL	2686.0	2686.0	97.91	%			17:27:04
2	Al 396.153Radial†	2273.8	2370.5	5070.9	ug/L	5070.9	ppb	17:26:44
2	Ca 317.933Radial†	1287.1	1297.7	5149.9	ug/L	5149.9	ppb	17:27:04
2	Fe 238.204 Radial†	192.7	187.2	5218.4	ug/L	5218.4	ppb	17:27:04
2	K 766.490 Radial†	13008.9	11104.4	5076.8	ug/L	5076.8	ppb	17:26:44
2	Mg 279.077 IEC†	55.4	55.8	5416.4	ug/L	5416.4	ppb	17:27:04
2	Na 589.592 Radial†	29204.9	30458.7	10172	ug/L	10172	ppb	17:26:44
2	Sr 421.552†	52192.2	52998.5	525.50	ug/L	525.50	ppb	17:26:44
2	Sc 361.383	861157.1	861157.1	103.16	%			17:28:07
2	Y 371.029	728519.6	728519.6	101.80	%			17:28:07
2	Ag 328.068†	102071.9	98782.2	502.22	ug/L	502.22	ppb	17:28:12
2	As 188.979†	896.5	884.9	496.22	ug/L	496.22	ppb	17:28:32
2	B 249.677†	17955.5	17495.0	488.13	ug/L	488.13	ppb	17:28:12
2	Ba 233.527†	55222.8	53536.3	501.26	ug/L	501.26	ppb	17:28:12
2	Be 313.107†	1183159.0	1150483.3	497.62	ug/L	497.62	ppb	17:28:07
2	Cd 226.502†	35581.2	34631.5	500.50	ug/L	500.50	ppb	17:28:12
2	Co 228.616†	20139.5	19565.4	507.47	ug/L	507.47	ppb	17:28:12
2	Cr 267.716†	39628.9	38347.7	500.91	ug/L	500.91	ppb	17:28:12
2	Cu 324.752†	165307.4	154166.9	496.13	ug/L	496.13	ppb	17:28:12
2	Mn 257.610†	386111.6	373879.6	490.23	ug/L	490.23	ppb	17:28:12
2	Mo 202.031†	5849.7	5656.5	488.70	ug/L	488.70	ppb	17:28:32
2	Ni 231.604†	16669.2	16104.9	507.31	ug/L	507.31	ppb	17:28:12

2	P 214.914†	3500.0	3217.2	2346.7 ug/L	2346.7 ppb	17:28:32
2	Pb 220.353†	3244.6	3189.0	495.19 ug/L	495.19 ppb	17:28:32
2	S 181.975 Axial†	594.0	544.9	970.97 ug/L	970.97 ppb	17:28:32
2	Sb 206.836†	1241.9	1175.3	504.61 ug/L	504.61 ppb	17:28:32
2	Se 196.026†	607.4	608.0	511.97 ug/L	511.97 ppb	17:28:32
2	Si 251.611†	70137.2	67533.6	2498.0 ug/L	2498.0 ppb	17:28:12
2	Sn 189.927†	2228.0	2151.9	489.59 ug/L	489.59 ppb	17:28:32
2	Ti 334.940†	295777.8	287666.4	488.76 ug/L	488.76 ppb	17:28:12
2	Tl 190.801†	1291.4	1282.9	500.84 ug/L	500.84 ppb	17:28:32
2	U 409.014†	16229.7	17735.1	516.19 ug/L	516.19 ppb	17:28:12
2	V 292.402†	64625.3	63889.9	505.27 ug/L	505.27 ppb	17:28:12
2	Zn 213.857†	43209.2	41381.5	497.42 ug/L	497.42 ppb	17:28:12
2	SiO2†	69015.9	66420.7	5204.3 ug/L	5204.3 ppb	17:29:14
3	Sc Radial	3379.7	3379.7	101 %		17:27:29
3	Y RADIAL	2744.7	2744.7	100.1 %		17:27:29
3	Al 396.153Radial†	2220.7	2261.5	4837.3 ug/L	4837.3 ppb	17:27:09
3	Ca 317.933Radial†	1287.6	1266.2	5025.1 ug/L	5025.1 ppb	17:27:29
3	Fe 238.204 Radial†	195.8	185.4	5168.2 ug/L	5168.2 ppb	17:27:29
3	K 766.490 Radial†	12970.7	10743.8	4912.0 ug/L	4912.0 ppb	17:27:09
3	Mg 279.077 IEC†	53.6	52.7	5111.0 ug/L	5111.0 ppb	17:27:29
3	Na 589.592 Radial†	28577.6	29112.4	9722.3 ug/L	9722.3 ppb	17:27:09
3	Sr 421.552†	50954.2	50476.6	500.49 ug/L	500.49 ppb	17:27:09
3	Sc 361.383	896549.2	896549.2	107.40 %		17:28:38
3	Y 371.029	759467.0	759467.0	106.12 %		17:28:38
3	Ag 328.068†	99400.7	92389.4	469.80 ug/L	469.80 ppb	17:28:43
3	As 188.979†	895.5	849.7	476.39 ug/L	476.39 ppb	17:29:03
3	B 249.677†	17493.1	16377.4	456.90 ug/L	456.90 ppb	17:28:43
3	Ba 233.527†	53604.5	49916.4	467.37 ug/L	467.37 ppb	17:28:43
3	Be 313.107†	1161513.4	1085056.1	469.31 ug/L	469.31 ppb	17:28:38
3	Cd 226.502†	34515.4	32277.7	466.45 ug/L	466.45 ppb	17:28:43
3	Co 228.616†	19653.1	18341.8	475.77 ug/L	475.77 ppb	17:28:43
3	Cr 267.716†	38479.2	35760.9	467.14 ug/L	467.14 ppb	17:28:43
3	Cu 324.752†	160679.0	143532.0	461.92 ug/L	461.92 ppb	17:28:43
3	Mn 257.610†	375533.3	349256.0	457.97 ug/L	457.97 ppb	17:28:43
3	Mo 202.031†	5898.4	5478.0	473.28 ug/L	473.28 ppb	17:29:03
3	Ni 231.604†	16204.4	15034.3	473.58 ug/L	473.58 ppb	17:28:43
3	P 214.914†	3540.1	3120.6	2279.9 ug/L	2279.9 ppb	17:29:03
3	Pb 220.353†	3258.2	3077.5	477.86 ug/L	477.86 ppb	17:29:03
3	S 181.975 Axial†	602.2	529.8	944.09 ug/L	944.09 ppb	17:29:03
3	Sb 206.836†	1243.6	1129.4	484.99 ug/L	484.99 ppb	17:29:03
3	Se 196.026†	610.1	587.2	494.82 ug/L	494.82 ppb	17:29:03
3	Si 251.611†	68090.4	62944.1	2328.0 ug/L	2328.0 ppb	17:28:43
3	Sn 189.927†	2236.1	2074.1	471.90 ug/L	471.90 ppb	17:29:03
3	Ti 334.940†	287001.0	268176.6	455.68 ug/L	455.68 ppb	17:28:43
3	Tl 190.801†	1279.0	1221.9	476.96 ug/L	476.96 ppb	17:29:03
3	U 409.014†	15384.2	16326.8	475.15 ug/L	475.15 ppb	17:28:43
3	V 292.402†	62716.5	59639.8	471.85 ug/L	471.85 ppb	17:28:43
3	Zn 213.857†	42065.9	38663.6	464.71 ug/L	464.71 ppb	17:28:43
3	SiO2†	69227.4	63976.7	5012.7 ug/L	5012.7 ppb	17:29:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	871666.0	104.42	%	2.592				2.48%
Sc Radial	3339.1	99.7	%	1.23				1.24%
Y 371.029	737696.4	103.08	%	2.645				2.57%
Y RADIAL	2716.4	99.02	%	1.073				1.08%
Ag 328.068†	96533.6	490.80	ug/L	18.207	490.80	ppb	18.207	3.71%
QC value within limits for Ag 328.068 Recovery = 98.16%								
Al 396.153Radial†	2319.8	4962.0	ug/L	117.59	4962.0	ppb	117.59	2.37%
QC value within limits for Al 396.153Radial Recovery = 99.24%								
As 188.979†	875.8	491.03	ug/L	12.860	491.03	ppb	12.860	2.62%
QC value within limits for As 188.979 Recovery = 98.21%								
B 249.677†	17097.1	477.02	ug/L	17.456	477.02	ppb	17.456	3.66%
QC value within limits for B 249.677 Recovery = 95.40%								
Ba 233.527†	52188.9	488.64	ug/L	18.525	488.64	ppb	18.525	3.79%
QC value within limits for Ba 233.527 Recovery = 97.73%								
Be 313.107†	1125955.7	487.01	ug/L	15.429	487.01	ppb	15.429	3.17%
QC value within limits for Be 313.107 Recovery = 97.40%								
Ca 317.933Radial†	1283.1	5092.2	ug/L	62.94	5092.2	ppb	62.94	1.24%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.84%
Cd 226.502†            33762.5      487.93 ug/L        18.695      487.93 ppb         18.695   3.83%
   QC value within limits for Cd 226.502  Recovery = 97.59%
Co 228.616†            19120.0      495.94 ug/L        17.525      495.94 ppb         17.525   3.53%
   QC value within limits for Co 228.616  Recovery = 99.19%
Cr 267.716†            37361.1      488.03 ug/L        18.256      488.03 ppb         18.256   3.74%
   QC value within limits for Cr 267.716  Recovery = 97.61%
Cu 324.752†           150412.2      484.05 ug/L        19.190      484.05 ppb         19.190   3.96%
   QC value within limits for Cu 324.752  Recovery = 96.81%
Fe 238.204 Radial†       184.9      5154.1 ug/L         72.37      5154.1 ppb          72.37   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.08%
K 766.490 Radial†      10903.8      4985.1 ug/L         83.97      4985.1 ppb          83.97   1.68%
   QC value within limits for K 766.490 Radial  Recovery = 99.70%
Mg 279.077 IEC†           54.1      5252.7 ug/L        153.91      5252.7 ppb         153.91   2.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.05%
Mn 257.610†           364989.1      478.58 ug/L        17.899      478.58 ppb         17.899   3.74%
   QC value within limits for Mn 257.610  Recovery = 95.72%
Mo 202.031†             5618.9      485.45 ug/L        10.913      485.45 ppb         10.913   2.25%
   QC value within limits for Mo 202.031  Recovery = 97.09%
Na 589.592 Radial†     29795.8      9950.5 ug/L        224.89      9950.5 ppb         224.89   2.26%
   QC value within limits for Na 589.592 Radial  Recovery = 99.50%
Ni 231.604†            15732.2      495.56 ug/L        19.055      495.56 ppb         19.055   3.85%
   QC value within limits for Ni 231.604  Recovery = 99.11%
P 214.914†              3193.9      2331.3 ug/L         45.71      2331.3 ppb          45.71   1.96%
   QC value within limits for P 214.914  Recovery = 93.25%
Pb 220.353†             3158.6      490.46 ug/L        11.025      490.46 ppb         11.025   2.25%
   QC value within limits for Pb 220.353  Recovery = 98.09%
S 181.975 Axial†         541.9      965.64 ug/L        19.453      965.64 ppb         19.453   2.01%
   QC value within limits for S 181.975 Axial  Recovery = 96.56%
Sb 206.836†             1164.8      500.13 ug/L        13.471      500.13 ppb         13.471   2.69%
   QC value within limits for Sb 206.836  Recovery = 100.03%
Se 196.026†              602.2      507.01 ug/L        10.619      507.01 ppb         10.619   2.09%
   QC value within limits for Se 196.026  Recovery = 101.40%
Si 251.611†            65888.7      2437.1 ug/L         94.64      2437.1 ppb          94.64   3.88%
   QC value within limits for Si 251.611  Recovery = 97.48%
Sn 189.927†             2137.7      486.36 ug/L        13.139      486.36 ppb         13.139   2.70%
   QC value within limits for Sn 189.927  Recovery = 97.27%
Sr 421.552†            51759.0      513.21 ug/L        12.509      513.21 ppb         12.509   2.44%
   QC value within limits for Sr 421.552  Recovery = 102.64%
Ti 334.940†           280642.0      476.84 ug/L        18.379      476.84 ppb         18.379   3.85%
   QC value within limits for Ti 334.940  Recovery = 95.37%
Tl 190.801†             1264.2      493.54 ug/L        14.392      493.54 ppb         14.392   2.92%
   QC value within limits for Tl 190.801  Recovery = 98.71%
U 409.014†             17157.7      499.37 ug/L        21.498      499.37 ppb         21.498   4.31%
   QC value within limits for U 409.014  Recovery = 99.87%
V 292.402†             62297.2      492.79 ug/L        18.244      492.79 ppb         18.244   3.70%
   QC value within limits for V 292.402  Recovery = 98.56%
Zn 213.857†            40434.0      486.02 ug/L        18.473      486.02 ppb         18.473   3.80%
   QC value within limits for Zn 213.857  Recovery = 97.20%
SiO2†                  65979.0      5169.7 ug/L        142.83      5169.7 ppb         142.83   2.76%
   QC value within limits for SiO2  Recovery = 96.68%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/9/2010 17:31:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3317.5	3317.5	99.0	%			17:33:42
1	Y RADIAL	2731.1	2731.1	99.56	%			17:33:42
1	Al 396.153Radial†	-58.2	1.3	2.7144	ug/L	2.7144	ppb	17:33:42
1	Ca 317.933Radial†	6.7	-3.5	-13.811	ug/L	-13.811	ppb	17:33:42
1	Fe 238.204 Radial†	9.3	0.8	21.416	ug/L	21.416	ppb	17:33:42
1	K 766.490 Radial†	2147.2	54.1	24.788	ug/L	24.788	ppb	17:33:22
1	Mg 279.077 IEC†	3.9	3.5	339.69	ug/L	339.69	ppb	17:33:42
1	Na 589.592 Radial†	-790.2	-15.5	-5.1727	ug/L	-5.1727	ppb	17:33:22
1	Sr 421.552†	16.7	-18.8	-0.1860	ug/L	-0.1860	ppb	17:33:22
1	Sc 361.383	840066.9	840066.9	100.64	%			17:34:39
1	Y 371.029	720285.7	720285.7	100.65	%			17:34:39
1	Ag 328.068†	187.5	27.2	0.1418	ug/L	0.1418	ppb	17:34:39
1	As 188.979†	-25.5	-9.4	-5.2312	ug/L	-5.2312	ppb	17:34:59
1	B 249.677†	-140.4	-49.3	-1.3861	ug/L	-1.3861	ppb	17:34:59
1	Ba 233.527†	9.5	16.7	0.1569	ug/L	0.1569	ppb	17:34:59
1	Be 313.107†	-3503.0	131.7	0.0571	ug/L	0.0571	ppb	17:34:39
1	Cd 226.502†	-136.5	5.9	0.0840	ug/L	0.0840	ppb	17:34:59
1	Co 228.616†	-39.9	3.9	0.1013	ug/L	0.1013	ppb	17:34:59
1	Cr 267.716†	69.1	2.9	0.0376	ug/L	0.0376	ppb	17:34:59
1	Cu 324.752†	6065.1	-43.8	-0.1424	ug/L	-0.1424	ppb	17:34:39
1	Mn 257.610†	394.8	2.6	-0.0084	ug/L	-0.0084	ppb	17:34:59
1	Mo 202.031†	10.7	-3.2	-0.2733	ug/L	-0.2733	ppb	17:34:59
1	Ni 231.604†	52.1	-1.3	-0.0404	ug/L	-0.0404	ppb	17:34:59
1	P 214.914†	180.8	4.2	3.2433	ug/L	3.2433	ppb	17:34:59
1	Pb 220.353†	-30.7	13.5	2.0798	ug/L	2.0798	ppb	17:34:59
1	S 181.975 Axial†	36.7	5.6	9.9223	ug/L	9.9223	ppb	17:34:59
1	Sb 206.836†	34.1	5.4	2.2352	ug/L	2.2352	ppb	17:34:59
1	Se 196.026†	-21.4	-2.1	-1.6321	ug/L	-1.6321	ppb	17:34:59
1	Si 251.611†	541.5	85.7	3.1799	ug/L	3.1799	ppb	17:34:59
1	Sn 189.927†	12.3	4.4	0.9970	ug/L	0.9970	ppb	17:34:59
1	Ti 334.940†	-906.3	59.7	0.0698	ug/L	0.0698	ppb	17:34:39
1	Tl 190.801†	-21.3	9.9	3.8257	ug/L	3.8257	ppb	17:34:59
1	U 409.014†	-1851.1	163.8	4.7805	ug/L	4.7805	ppb	17:34:39
1	V 292.402†	-1210.0	44.4	0.3555	ug/L	0.3555	ppb	17:34:39
1	Zn 213.857†	571.3	65.2	0.7887	ug/L	0.7887	ppb	17:34:59
1	SiO2†	566.1	84.0	6.6094	ug/L	6.6094	ppb	17:36:10
2	Sc Radial	3299.3	3299.3	98.5	%			17:34:07
2	Y RADIAL	2721.2	2721.2	99.20	%			17:34:07
2	Al 396.153Radial†	-59.7	-0.6	-1.2281	ug/L	-1.2281	ppb	17:34:07
2	Ca 317.933Radial†	12.8	2.8	11.225	ug/L	11.225	ppb	17:34:07
2	Fe 238.204 Radial†	7.3	-1.3	-34.918	ug/L	-34.918	ppb	17:34:07
2	K 766.490 Radial†	2148.6	67.5	30.880	ug/L	30.880	ppb	17:33:47
2	Mg 279.077 IEC†	2.3	1.9	179.99	ug/L	179.99	ppb	17:34:07
2	Na 589.592 Radial†	-737.8	33.4	11.142	ug/L	11.142	ppb	17:33:47
2	Sr 421.552†	49.2	14.3	0.1415	ug/L	0.1415	ppb	17:33:47
2	Sc 361.383	846598.3	846598.3	101.42	%			17:35:04
2	Y 371.029	726952.0	726952.0	101.58	%			17:35:04
2	Ag 328.068†	192.1	30.4	0.1470	ug/L	0.1470	ppb	17:35:04
2	As 188.979†	-20.9	-4.7	-2.6061	ug/L	-2.6061	ppb	17:35:24
2	B 249.677†	-201.2	-108.2	-3.0274	ug/L	-3.0274	ppb	17:35:24
2	Ba 233.527†	12.9	19.9	0.1854	ug/L	0.1854	ppb	17:35:24
2	Be 313.107†	-3471.2	189.9	0.0822	ug/L	0.0822	ppb	17:35:04
2	Cd 226.502†	-140.0	3.6	0.0545	ug/L	0.0545	ppb	17:35:24
2	Co 228.616†	-48.0	-3.8	-0.0970	ug/L	-0.0970	ppb	17:35:24
2	Cr 267.716†	59.0	-7.6	-0.0981	ug/L	-0.0981	ppb	17:35:24
2	Cu 324.752†	6102.5	-53.3	-0.1714	ug/L	-0.1714	ppb	17:35:04
2	Mn 257.610†	403.1	7.8	-0.0006	ug/L	-0.0006	ppb	17:35:24
2	Mo 202.031†	13.5	-0.4	-0.0410	ug/L	-0.0410	ppb	17:35:24
2	Ni 231.604†	54.0	0.2	0.0056	ug/L	0.0056	ppb	17:35:24

2	P 214.914†	167.5	-10.2	-7.7060 ug/L	-7.7060 ppb	17:35:24
2	Pb 220.353†	-27.4	16.9	2.6158 ug/L	2.6158 ppb	17:35:24
2	S 181.975 Axial†	24.5	-6.7	-12.027 ug/L	-12.027 ppb	17:35:24
2	Sb 206.836†	26.6	-2.3	-0.9447 ug/L	-0.9447 ppb	17:35:24
2	Se 196.026†	-15.0	4.5	3.5295 ug/L	3.5295 ppb	17:35:24
2	Si 251.611†	544.7	84.7	3.1409 ug/L	3.1409 ppb	17:35:24
2	Sn 189.927†	8.9	0.9	0.2104 ug/L	0.2104 ppb	17:35:24
2	Ti 334.940†	-916.8	56.3	0.0843 ug/L	0.0843 ppb	17:35:04
2	Tl 190.801†	-29.6	1.9	0.7441 ug/L	0.7441 ppb	17:35:24
2	U 409.014†	-2163.6	-130.1	-3.7960 ug/L	-3.7960 ppb	17:35:04
2	V 292.402†	-1218.2	45.6	0.3569 ug/L	0.3569 ppb	17:35:04
2	Zn 213.857†	573.1	62.6	0.7650 ug/L	0.7650 ppb	17:35:24
2	SiO2†	552.5	66.3	5.2057 ug/L	5.2057 ppb	17:36:30
3	Sc Radial	3315.8	3315.8	99.0 %		17:34:32
3	Y RADIAL	2721.2	2721.2	99.20 %		17:34:32
3	Al 396.153Radial†	-68.3	-8.9	-19.217 ug/L	-19.217 ppb	17:34:32
3	Ca 317.933Radial†	11.1	1.0	3.9817 ug/L	3.9817 ppb	17:34:32
3	Fe 238.204 Radial†	6.8	-1.7	-48.605 ug/L	-48.605 ppb	17:34:32
3	K 766.490 Radial†	2074.4	-18.4	-8.4017 ug/L	-8.4017 ppb	17:34:12
3	Mg 279.077 IEC†	3.6	3.2	308.58 ug/L	308.58 ppb	17:34:32
3	Na 589.592 Radial†	-807.4	-33.3	-11.106 ug/L	-11.106 ppb	17:34:12
3	Sr 421.552†	33.9	-1.4	-0.0142 ug/L	-0.0142 ppb	17:34:12
3	Sc 361.383	840291.4	840291.4	100.66 %		17:35:29
3	Y 371.029	720788.3	720788.3	100.72 %		17:35:29
3	Ag 328.068†	91.2	-68.5	-0.3585 ug/L	-0.3585 ppb	17:35:29
3	As 188.979†	-19.6	-3.5	-1.9794 ug/L	-1.9794 ppb	17:35:49
3	B 249.677†	-200.6	-109.1	-3.0498 ug/L	-3.0498 ppb	17:35:49
3	Ba 233.527†	19.6	26.7	0.2485 ug/L	0.2485 ppb	17:35:49
3	Be 313.107†	-3542.2	93.7	0.0404 ug/L	0.0404 ppb	17:35:29
3	Cd 226.502†	-156.1	-13.5	-0.1896 ug/L	-0.1896 ppb	17:35:49
3	Co 228.616†	-45.7	-1.8	-0.0472 ug/L	-0.0472 ppb	17:35:49
3	Cr 267.716†	63.6	-2.6	-0.0344 ug/L	-0.0344 ppb	17:35:49
3	Cu 324.752†	6045.9	-64.4	-0.2094 ug/L	-0.2094 ppb	17:35:29
3	Mn 257.610†	417.0	24.5	0.0148 ug/L	0.0148 ppb	17:35:49
3	Mo 202.031†	13.1	-0.8	-0.0702 ug/L	-0.0702 ppb	17:35:49
3	Ni 231.604†	65.3	11.8	0.3722 ug/L	0.3722 ppb	17:35:49
3	P 214.914†	186.9	10.3	7.9018 ug/L	7.9018 ppb	17:35:49
3	Pb 220.353†	-35.8	8.4	1.2971 ug/L	1.2971 ppb	17:35:49
3	S 181.975 Axial†	29.4	-1.6	-2.9041 ug/L	-2.9041 ppb	17:35:49
3	Sb 206.836†	26.9	-1.8	-0.7199 ug/L	-0.7199 ppb	17:35:49
3	Se 196.026†	-21.5	-2.1	-1.8776 ug/L	-1.8776 ppb	17:35:49
3	Si 251.611†	531.9	76.0	2.8192 ug/L	2.8192 ppb	17:35:49
3	Sn 189.927†	12.7	4.8	1.0912 ug/L	1.0912 ppb	17:35:49
3	Ti 334.940†	-972.2	-5.5	-0.0336 ug/L	-0.0336 ppb	17:35:29
3	Tl 190.801†	-29.5	1.8	0.6908 ug/L	0.6908 ppb	17:35:49
3	U 409.014†	-2050.6	-33.9	-0.9838 ug/L	-0.9838 ppb	17:35:29
3	V 292.402†	-1198.2	56.4	0.4508 ug/L	0.4508 ppb	17:35:29
3	Zn 213.857†	577.1	70.8	0.8647 ug/L	0.8647 ppb	17:35:49
3	SiO2†	543.7	61.6	4.8425 ug/L	4.8425 ppb	17:36:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842318.8	100.91	%	0.444				0.44%
Sc Radial	3310.8	98.8	%	0.30				0.30%
Y 371.029	722675.3	100.98	%	0.519				0.51%
Y RADIAL	2724.5	99.32	%	0.207				0.21%
Ag 328.068†	-3.6	-0.0232	ug/L	0.29034	-0.0232	ppb	0.29034	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-5.9103	ug/L	11.69156	-5.9103	ppb	11.69156	197.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.9	-3.2722	ug/L	1.72521	-3.2722	ppb	1.72521	52.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-88.9	-2.4878	ug/L	0.95412	-2.4878	ppb	0.95412	38.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.1	0.1970	ug/L	0.04688	0.1970	ppb	0.04688	23.80%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	138.4	0.0599	ug/L	0.02102	0.0599	ppb	0.02102	35.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.1	0.4653	ug/L	12.88351	0.4653	ppb	12.88351	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -1.3     -0.0171 ug/L       0.15020     -0.0171 ppb        0.15020 880.93%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -0.6     -0.0143 ug/L       0.10317     -0.0143 ppb        0.10317 721.22%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.4     -0.0316 ug/L       0.06786     -0.0316 ppb        0.06786 214.43%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -53.9     -0.1744 ug/L       0.03357     -0.1744 ppb        0.03357  19.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -20.702 ug/L       37.1122     -20.702 ppb        37.1122 179.27%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        34.4      15.755 ug/L       21.1410      15.755 ppb        21.1410 134.18%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.8      276.09 ug/L        84.665      276.09 ppb         84.665  30.67%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.6      0.0019 ug/L       0.01177      0.0019 ppb        0.01177 613.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.5     -0.1282 ug/L       0.12655     -0.1282 ppb        0.12655  98.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -5.1     -1.7123 ug/L      11.52077     -1.7123 ppb       11.52077 672.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               3.6      0.1125 ug/L       0.22609      0.1125 ppb        0.22609 200.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.4      1.1464 ug/L       8.01244      1.1464 ppb        8.01244 698.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              12.9      1.9976 ug/L       0.66315      1.9976 ppb        0.66315  33.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -0.9     -1.6696 ug/L      11.02653     -1.6696 ppb       11.02653 660.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.4      0.1902 ug/L       1.77462      0.1902 ppb        1.77462 933.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.1      0.0066 ug/L       3.05336      0.0066 ppb        3.05336 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              82.1      3.0466 ug/L       0.19794      3.0466 ppb        0.19794   6.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.4      0.7662 ug/L       0.48363      0.7662 ppb        0.48363  63.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -2.0     -0.0196 ug/L       0.16384     -0.0196 ppb        0.16384 837.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              36.9      0.0402 ug/L       0.06427      0.0402 ppb        0.06427 159.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.5      1.7535 ug/L       1.79477      1.7535 ppb        1.79477 102.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -0.1      0.0002 ug/L       4.37210      0.0002 ppb        4.37210 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               48.8      0.3877 ug/L       0.05461      0.3877 ppb        0.05461  14.08%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              66.2      0.8061 ug/L       0.05211      0.8061 ppb        0.05211   6.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    70.6      5.5525 ug/L       0.93314      5.5525 ppb        0.93314  16.81%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/9/2010 17:45:37 **Plasma On Time: 3/8/2010 08:27:38**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\030910.sif
Batch ID:
Results Data Set: 030910
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/9/2010 17:45:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3289.7	3289.7	98.2	%			17:47:50
1	Y RADIAL	2682.4	2682.4	97.78	%			17:47:50
1	Al 396.153Radial†	2232.8	2334.0	4992.5	ug/L	4992.5	ppb	17:47:30
1	Ca 317.933Radial†	1269.6	1282.8	5090.8	ug/L	5090.8	ppb	17:47:50
1	Fe 238.204 Radial†	188.3	183.2	5106.3	ug/L	5106.3	ppb	17:47:50
1	K 766.490 Radial†	12979.7	11104.8	5077.1	ug/L	5077.1	ppb	17:47:30
1	Mg 279.077 IEC†	54.0	54.6	5294.2	ug/L	5294.2	ppb	17:47:50
1	Na 589.592 Radial†	28191.0	29493.7	9849.6	ug/L	9849.6	ppb	17:47:30
1	Sr 421.552†	50598.6	51496.3	510.60	ug/L	510.60	ppb	17:47:30
1	Sc 361.383	854695.8	854695.8	102.39	%			17:48:48
1	Y 371.029	723065.0	723065.0	101.03	%			17:48:48
1	Ag 328.068†	100388.5	97886.1	497.64	ug/L	497.64	ppb	17:48:53
1	As 188.979†	882.3	877.6	492.09	ug/L	492.09	ppb	17:49:13
1	B 249.677†	17557.6	17238.0	480.96	ug/L	480.96	ppb	17:48:53
1	Ba 233.527†	54116.0	52860.0	494.92	ug/L	494.92	ppb	17:48:53
1	Be 313.107†	1171783.9	1148043.9	496.56	ug/L	496.56	ppb	17:48:48
1	Cd 226.502†	34838.7	34167.0	493.79	ug/L	493.79	ppb	17:48:53
1	Co 228.616†	19835.0	19415.6	503.60	ug/L	503.60	ppb	17:48:53
1	Cr 267.716†	38927.8	37953.3	495.76	ug/L	495.76	ppb	17:48:53
1	Cu 324.752†	162319.9	152460.5	490.63	ug/L	490.63	ppb	17:48:53
1	Mn 257.610†	385894.8	376497.3	493.66	ug/L	493.66	ppb	17:48:48
1	Mo 202.031†	5812.4	5662.9	489.24	ug/L	489.24	ppb	17:49:13
1	Ni 231.604†	16417.8	15981.5	503.42	ug/L	503.42	ppb	17:48:53
1	P 214.914†	3483.3	3226.6	2355.0	ug/L	2355.0	ppb	17:49:13
1	Pb 220.353†	3225.3	3193.9	495.96	ug/L	495.96	ppb	17:49:13
1	S 181.975 Axial†	600.6	555.7	990.24	ug/L	990.24	ppb	17:49:13
1	Sb 206.836†	1216.9	1160.0	498.30	ug/L	498.30	ppb	17:49:13
1	Se 196.026†	605.9	611.0	514.07	ug/L	514.07	ppb	17:49:13
1	Si 251.611†	68739.3	66682.3	2466.5	ug/L	2466.5	ppb	17:48:53
1	Sn 189.927†	2214.1	2154.6	490.21	ug/L	490.21	ppb	17:49:13
1	Ti 334.940†	290451.0	284631.4	483.61	ug/L	483.61	ppb	17:48:53
1	Tl 190.801†	1280.8	1282.0	500.50	ug/L	500.50	ppb	17:49:13
1	U 409.014†	15716.9	17353.2	505.07	ug/L	505.07	ppb	17:48:53
1	V 292.402†	63428.4	63194.6	499.85	ug/L	499.85	ppb	17:48:53
1	Zn 213.857†	42439.2	40946.1	492.18	ug/L	492.18	ppb	17:48:53
1	SiO2†	68914.5	66827.4	5236.2	ug/L	5236.2	ppb	17:50:20
2	Sc Radial	3340.3	3340.3	99.7	%			17:48:16
2	Y RADIAL	2702.1	2702.1	98.50	%			17:48:16
2	Al 396.153Radial†	2185.9	2252.5	4817.0	ug/L	4817.0	ppb	17:47:56
2	Ca 317.933Radial†	1280.0	1273.7	5054.7	ug/L	5054.7	ppb	17:48:16
2	Fe 238.204 Radial†	192.4	184.3	5138.1	ug/L	5138.1	ppb	17:48:16
2	K 766.490 Radial†	12729.4	10653.6	4870.7	ug/L	4870.7	ppb	17:47:56
2	Mg 279.077 IEC†	54.6	54.3	5273.6	ug/L	5273.6	ppb	17:48:16
2	Na 589.592 Radial†	28013.5	28881.0	9645.0	ug/L	9645.0	ppb	17:47:56
2	Sr 421.552†	49999.4	50115.3	496.91	ug/L	496.91	ppb	17:47:56
2	Sc 361.383	855956.8	855956.8	102.54	%			17:49:19
2	Y 371.029	725081.6	725081.6	101.32	%			17:49:19

2	Ag 328.068†	99569.5	96943.0	492.87 ug/L	492.87 ppb	17:49:24
2	As 188.979†	895.6	889.3	498.56 ug/L	498.56 ppb	17:49:44
2	B 249.677†	17445.4	17103.3	477.19 ug/L	477.19 ppb	17:49:24
2	Ba 233.527†	53676.8	52353.8	490.19 ug/L	490.19 ppb	17:49:24
2	Be 313.107†	1175231.8	1149720.4	497.27 ug/L	497.27 ppb	17:49:19
2	Cd 226.502†	34616.3	33900.0	489.92 ug/L	489.92 ppb	17:49:24
2	Co 228.616†	19698.2	19253.7	499.42 ug/L	499.42 ppb	17:49:24
2	Cr 267.716†	38643.3	37619.9	491.41 ug/L	491.41 ppb	17:49:24
2	Cu 324.752†	160652.4	150600.7	484.66 ug/L	484.66 ppb	17:49:24
2	Mn 257.610†	385729.0	375780.4	492.72 ug/L	492.72 ppb	17:49:19
2	Mo 202.031†	5894.1	5734.2	495.40 ug/L	495.40 ppb	17:49:44
2	Ni 231.604†	16265.6	15809.5	498.00 ug/L	498.00 ppb	17:49:24
2	P 214.914†	3518.0	3255.4	2378.0 ug/L	2378.0 ppb	17:49:44
2	Pb 220.353†	3246.9	3210.4	498.47 ug/L	498.47 ppb	17:49:44
2	S 181.975 Axial†	606.8	560.9	999.49 ug/L	999.49 ppb	17:49:44
2	Sb 206.836†	1253.5	1193.9	512.59 ug/L	512.59 ppb	17:49:44
2	Se 196.026†	611.7	615.7	518.00 ug/L	518.00 ppb	17:49:44
2	Si 251.611†	68172.4	66030.6	2442.2 ug/L	2442.2 ppb	17:49:24
2	Sn 189.927†	2249.2	2185.6	497.25 ug/L	497.25 ppb	17:49:44
2	Ti 334.940†	287980.1	281803.8	478.81 ug/L	478.81 ppb	17:49:24
2	Tl 190.801†	1290.8	1289.9	503.55 ug/L	503.55 ppb	17:49:44
2	U 409.014†	15453.1	17073.3	496.90 ug/L	496.90 ppb	17:49:24
2	V 292.402†	62852.2	62541.3	494.83 ug/L	494.83 ppb	17:49:24
2	Zn 213.857†	42118.1	40571.9	487.68 ug/L	487.68 ppb	17:49:24
2	SiO2†	68725.6	66544.0	5213.8 ug/L	5213.8 ppb	17:50:26
3	Sc Radial	3335.7	3335.7	99.6 %		17:48:41
3	Y RADIAL	2705.9	2705.9	98.64 %		17:48:41
3	Al 396.153Radial†	2146.1	2215.6	4737.8 ug/L	4737.8 ppb	17:48:21
3	Ca 317.933Radial†	1283.1	1278.6	5074.2 ug/L	5074.2 ppb	17:48:41
3	Fe 238.204 Radial†	189.1	181.3	5053.3 ug/L	5053.3 ppb	17:48:41
3	K 766.490 Radial†	12787.9	10729.9	4905.6 ug/L	4905.6 ppb	17:48:21
3	Mg 279.077 IEC†	53.7	53.4	5186.4 ug/L	5186.4 ppb	17:48:41
3	Na 589.592 Radial†	27756.2	28661.2	9571.6 ug/L	9571.6 ppb	17:48:21
3	Sr 421.552†	49406.6	49588.8	491.69 ug/L	491.69 ppb	17:48:21
3	Sc 361.383	854084.4	854084.4	102.32 %		17:49:50
3	Y 371.029	722922.6	722922.6	101.01 %		17:49:50
3	Ag 328.068†	100661.5	98223.1	499.33 ug/L	499.33 ppb	17:49:55
3	As 188.979†	896.1	891.7	499.93 ug/L	499.93 ppb	17:50:15
3	B 249.677†	17804.6	17491.7	488.07 ug/L	488.07 ppb	17:49:55
3	Ba 233.527†	54361.8	53138.0	497.52 ug/L	497.52 ppb	17:49:55
3	Be 313.107†	1178097.2	1155033.4	499.58 ug/L	499.58 ppb	17:49:50
3	Cd 226.502†	34973.2	34322.8	496.05 ug/L	496.05 ppb	17:49:55
3	Co 228.616†	19907.7	19500.5	505.81 ug/L	505.81 ppb	17:49:55
3	Cr 267.716†	39005.8	38056.8	497.11 ug/L	497.11 ppb	17:49:55
3	Cu 324.752†	163474.9	153702.8	494.63 ug/L	494.63 ppb	17:49:55
3	Mn 257.610†	387910.8	378737.4	496.59 ug/L	496.59 ppb	17:49:50
3	Mo 202.031†	5860.4	5713.9	493.64 ug/L	493.64 ppb	17:50:15
3	Ni 231.604†	16425.8	16000.8	504.02 ug/L	504.02 ppb	17:49:55
3	P 214.914†	3508.4	3253.5	2374.6 ug/L	2374.6 ppb	17:50:15
3	Pb 220.353†	3249.6	3219.9	499.94 ug/L	499.94 ppb	17:50:15
3	S 181.975 Axial†	602.3	557.8	994.04 ug/L	994.04 ppb	17:50:15
3	Sb 206.836†	1243.4	1186.8	509.57 ug/L	509.57 ppb	17:50:15
3	Se 196.026†	609.6	615.0	517.15 ug/L	517.15 ppb	17:50:15
3	Si 251.611†	69204.8	67185.3	2485.0 ug/L	2485.0 ppb	17:49:55
3	Sn 189.927†	2238.7	2180.2	496.02 ug/L	496.02 ppb	17:50:15
3	Ti 334.940†	291282.8	285647.4	485.34 ug/L	485.34 ppb	17:49:55
3	Tl 190.801†	1291.4	1293.2	504.87 ug/L	504.87 ppb	17:50:15
3	U 409.014†	15828.3	17473.0	508.57 ug/L	508.57 ppb	17:49:55
3	V 292.402†	63685.9	63490.6	502.24 ug/L	502.24 ppb	17:49:55
3	Zn 213.857†	42635.4	41167.6	494.87 ug/L	494.87 ppb	17:49:55
3	SiO2†	68122.4	66101.4	5179.1 ug/L	5179.1 ppb	17:50:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	854912.3	102.42	%	0.114				0.11%
Sc Radial	3321.9	99.1	%	0.83				0.84%
Y 371.029	723689.7	101.12	%	0.169				0.17%
Y RADIAL	2696.8	98.31	%	0.462				0.47%
Ag 328.068†	97684.1	496.62	ug/L	3.351	496.62	ppb	3.351	0.67%

```
   QC value within limits for Ag 328.068  Recovery = 99.32%
Al 396.153Radial†       2267.4      4849.1 ug/L        130.34      4849.1 ppb         130.34   2.69%
   QC value within limits for Al 396.153Radial  Recovery = 96.98%
As 188.979†              886.2      496.86 ug/L         4.186      496.86 ppb          4.186   0.84%
   QC value within limits for As 188.979  Recovery = 99.37%
B 249.677†             17277.6      482.07 ug/L         5.527      482.07 ppb          5.527   1.15%
   QC value within limits for B 249.677  Recovery = 96.41%
Ba 233.527†            52783.9      494.21 ug/L         3.720      494.21 ppb          3.720   0.75%
   QC value within limits for Ba 233.527  Recovery = 98.84%
Be 313.107†          1150932.6      497.80 ug/L         1.579      497.80 ppb          1.579   0.32%
   QC value within limits for Be 313.107  Recovery = 99.56%
Ca 317.933Radial†       1278.3      5073.2 ug/L        18.10      5073.2 ppb         18.10   0.36%
   QC value within limits for Ca 317.933Radial  Recovery = 101.46%
Cd 226.502†            34130.0      493.25 ug/L         3.098      493.25 ppb          3.098   0.63%
   QC value within limits for Cd 226.502  Recovery = 98.65%
Co 228.616†            19389.9      502.94 ug/L         3.243      502.94 ppb          3.243   0.64%
   QC value within limits for Co 228.616  Recovery = 100.59%
Cr 267.716†            37876.7      494.76 ug/L         2.980      494.76 ppb          2.980   0.60%
   QC value within limits for Cr 267.716  Recovery = 98.95%
Cu 324.752†           152254.7      489.97 ug/L         5.019      489.97 ppb          5.019   1.02%
   QC value within limits for Cu 324.752  Recovery = 97.99%
Fe 238.204 Radial†       182.9      5099.2 ug/L        42.85      5099.2 ppb         42.85   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.98%
K 766.490 Radial†      10829.4      4951.1 ug/L       110.50      4951.1 ppb        110.50   2.23%
   QC value within limits for K 766.490 Radial  Recovery = 99.02%
Mg 279.077 IEC†           54.1      5251.4 ug/L        57.23      5251.4 ppb         57.23   1.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.03%
Mn 257.610†           377005.1      494.32 ug/L         2.019      494.32 ppb          2.019   0.41%
   QC value within limits for Mn 257.610  Recovery = 98.86%
Mo 202.031†             5703.7      492.76 ug/L         3.170      492.76 ppb          3.170   0.64%
   QC value within limits for Mo 202.031  Recovery = 98.55%
Na 589.592 Radial†     29012.0      9688.7 ug/L       144.07      9688.7 ppb        144.07   1.49%
   QC value within limits for Na 589.592 Radial  Recovery = 96.89%
Ni 231.604†            15930.6      501.81 ug/L         3.317      501.81 ppb          3.317   0.66%
   QC value within limits for Ni 231.604  Recovery = 100.36%
P 214.914†              3245.2      2369.2 ug/L        12.45      2369.2 ppb         12.45   0.53%
   QC value within limits for P 214.914  Recovery = 94.77%
Pb 220.353†             3208.1      498.12 ug/L         2.016      498.12 ppb          2.016   0.40%
   QC value within limits for Pb 220.353  Recovery = 99.62%
S 181.975 Axial†         558.1      994.59 ug/L         4.648      994.59 ppb          4.648   0.47%
   QC value within limits for S 181.975 Axial  Recovery = 99.46%
Sb 206.836†             1180.2      506.82 ug/L         7.530      506.82 ppb          7.530   1.49%
   QC value within limits for Sb 206.836  Recovery = 101.36%
Se 196.026†              613.9      516.41 ug/L         2.067      516.41 ppb          2.067   0.40%
   QC value within limits for Se 196.026  Recovery = 103.28%
Si 251.611†            66632.7      2464.6 ug/L        21.48      2464.6 ppb         21.48   0.87%
   QC value within limits for Si 251.611  Recovery = 98.58%
Sn 189.927†             2173.5      494.49 ug/L         3.757      494.49 ppb          3.757   0.76%
   QC value within limits for Sn 189.927  Recovery = 98.90%
Sr 421.552†            50400.2      499.73 ug/L         9.769      499.73 ppb          9.769   1.95%
   QC value within limits for Sr 421.552  Recovery = 99.95%
Ti 334.940†           284027.5      482.59 ug/L         3.386      482.59 ppb          3.386   0.70%
   QC value within limits for Ti 334.940  Recovery = 96.52%
Tl 190.801†             1288.3      502.98 ug/L         2.242      502.98 ppb          2.242   0.45%
   QC value within limits for Tl 190.801  Recovery = 100.60%
U 409.014†             17299.8      503.51 ug/L         5.988      503.51 ppb          5.988   1.19%
   QC value within limits for U 409.014  Recovery = 100.70%
V 292.402†             63075.5      498.97 ug/L         3.782      498.97 ppb          3.782   0.76%
   QC value within limits for V 292.402  Recovery = 99.79%
Zn 213.857†            40895.2      491.58 ug/L         3.632      491.58 ppb          3.632   0.74%
   QC value within limits for Zn 213.857  Recovery = 98.32%
SiO2†                  66490.9      5209.7 ug/L        28.79      5209.7 ppb         28.79   0.55%
   QC value within limits for SiO2  Recovery = 97.42%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/9/2010 17:52:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3225.0	3225.0	96.3	%			17:54:53
1	Y RADIAL	2643.4	2643.4	96.36	%			17:54:53
1	Al 396.153Radial†	-54.9	3.0	6.3827	ug/L	6.3827	ppb	17:54:53
1	Ca 317.933Radial†	11.4	1.6	6.3843	ug/L	6.3843	ppb	17:54:53
1	Fe 238.204 Radial†	7.6	-0.8	-21.575	ug/L	-21.575	ppb	17:54:53
1	K 766.490 Radial†	2243.2	216.0	98.878	ug/L	98.878	ppb	17:54:33
1	Mg 279.077 IEC†	1.9	1.5	143.74	ug/L	143.74	ppb	17:54:53
1	Na 589.592 Radial†	-793.8	-42.0	-14.035	ug/L	-14.035	ppb	17:54:33
1	Sr 421.552†	43.8	9.9	0.0979	ug/L	0.0979	ppb	17:54:33
1	Sc 361.383	818780.3	818780.3	98.087	%			17:55:50
1	Y 371.029	702789.3	702789.3	98.201	%			17:55:50
1	Ag 328.068†	130.2	-26.4	-0.1337	ug/L	-0.1337	ppb	17:55:50
1	As 188.979†	-18.9	-3.3	-1.8320	ug/L	-1.8320	ppb	17:56:10
1	B 249.677†	-169.0	-82.1	-2.2974	ug/L	-2.2974	ppb	17:56:10
1	Ba 233.527†	6.9	14.2	0.1328	ug/L	0.1328	ppb	17:56:10
1	Be 313.107†	-3493.6	50.9	0.0216	ug/L	0.0216	ppb	17:55:50
1	Cd 226.502†	-143.2	-4.4	-0.0613	ug/L	-0.0613	ppb	17:56:10
1	Co 228.616†	-47.4	-4.8	-0.1238	ug/L	-0.1238	ppb	17:56:10
1	Cr 267.716†	65.3	0.8	0.0126	ug/L	0.0126	ppb	17:56:10
1	Cu 324.752†	6129.2	178.2	0.5759	ug/L	0.5759	ppb	17:55:50
1	Mn 257.610†	405.1	23.3	0.0225	ug/L	0.0225	ppb	17:56:10
1	Mo 202.031†	8.0	-5.6	-0.4833	ug/L	-0.4833	ppb	17:56:10
1	Ni 231.604†	98.0	46.9	1.4777	ug/L	1.4777	ppb	17:56:10
1	P 214.914†	180.4	8.5	6.3570	ug/L	6.3570	ppb	17:56:10
1	Pb 220.353†	-46.2	-3.2	-0.4921	ug/L	-0.4921	ppb	17:56:10
1	S 181.975 Axial†	31.4	1.2	2.0986	ug/L	2.0986	ppb	17:56:10
1	Sb 206.836†	28.0	0.0	0.0281	ug/L	0.0281	ppb	17:56:10
1	Se 196.026†	-19.9	-1.0	-0.9040	ug/L	-0.9040	ppb	17:56:10
1	Si 251.611†	511.8	69.4	2.5798	ug/L	2.5798	ppb	17:56:10
1	Sn 189.927†	12.9	5.3	1.2032	ug/L	1.2032	ppb	17:56:10
1	Ti 334.940†	-1029.7	-89.6	-0.1604	ug/L	-0.1604	ppb	17:55:50
1	Tl 190.801†	-23.1	7.5	2.9104	ug/L	2.9104	ppb	17:56:10
1	U 409.014†	-2173.8	-213.0	-6.2174	ug/L	-6.2174	ppb	17:55:50
1	V 292.402†	-1182.1	41.6	0.3121	ug/L	0.3121	ppb	17:55:50
1	Zn 213.857†	622.6	132.3	1.5977	ug/L	1.5977	ppb	17:56:10
1	SiO2†	499.0	30.3	2.3898	ug/L	2.3898	ppb	17:57:21
2	Sc Radial	3637.0	3637.0	109	%			17:55:18
2	Y RADIAL	2982.8	2982.8	108.7	%			17:55:18
2	Al 396.153Radial†	-49.4	14.5	31.110	ug/L	31.110	ppb	17:55:18
2	Ca 317.933Radial†	14.8	3.4	13.590	ug/L	13.590	ppb	17:55:18
2	Fe 238.204 Radial†	8.4	-0.9	-25.907	ug/L	-25.907	ppb	17:55:18
2	K 766.490 Radial†	2150.7	-133.2	-60.985	ug/L	-60.985	ppb	17:54:58
2	Mg 279.077 IEC†	1.2	0.7	66.577	ug/L	66.577	ppb	17:55:18
2	Na 589.592 Radial†	-807.1	39.1	13.050	ug/L	13.050	ppb	17:54:58
2	Sr 421.552†	12.7	-24.0	-0.2377	ug/L	-0.2377	ppb	17:54:58
2	Sc 361.383	816406.3	816406.3	97.803	%			17:56:15
2	Y 371.029	701242.3	701242.3	97.985	%			17:56:15
2	Ag 328.068†	170.6	15.3	0.0671	ug/L	0.0671	ppb	17:56:15
2	As 188.979†	-22.8	-7.4	-4.1189	ug/L	-4.1189	ppb	17:56:35
2	B 249.677†	-196.9	-111.1	-3.1101	ug/L	-3.1101	ppb	17:56:35
2	Ba 233.527†	-5.3	1.7	0.0149	ug/L	0.0149	ppb	17:56:35
2	Be 313.107†	-3528.6	4.7	0.0016	ug/L	0.0016	ppb	17:56:15
2	Cd 226.502†	-140.1	-1.7	-0.0209	ug/L	-0.0209	ppb	17:56:35
2	Co 228.616†	-56.2	-13.9	-0.3581	ug/L	-0.3581	ppb	17:56:35
2	Cr 267.716†	66.7	2.4	0.0298	ug/L	0.0298	ppb	17:56:35
2	Cu 324.752†	6150.5	218.2	0.7003	ug/L	0.7003	ppb	17:56:15
2	Mn 257.610†	398.1	17.3	0.0174	ug/L	0.0174	ppb	17:56:35
2	Mo 202.031†	18.3	4.9	0.4234	ug/L	0.4234	ppb	17:56:35
2	Ni 231.604†	110.6	60.1	1.8941	ug/L	1.8941	ppb	17:56:35

2	P 214.914†	177.9	6.5	4.8228 ug/L	4.8228 ppb	17:56:35
2	Pb 220.353†	-26.8	16.5	2.5641 ug/L	2.5641 ppb	17:56:35
2	S 181.975 Axial†	32.3	2.2	3.9276 ug/L	3.9276 ppb	17:56:35
2	Sb 206.836†	31.2	3.5	1.4653 ug/L	1.4653 ppb	17:56:35
2	Se 196.026†	-16.1	2.8	2.1969 ug/L	2.1969 ppb	17:56:35
2	Si 251.611†	496.6	55.4	2.0478 ug/L	2.0478 ppb	17:56:35
2	Sn 189.927†	12.6	5.0	1.1511 ug/L	1.1511 ppb	17:56:35
2	Ti 334.940†	-1057.4	-120.9	-0.2096 ug/L	-0.2096 ppb	17:56:15
2	Tl 190.801†	-26.9	3.6	1.3992 ug/L	1.3992 ppb	17:56:35
2	U 409.014†	-1916.7	43.4	1.2694 ug/L	1.2694 ppb	17:56:15
2	V 292.402†	-1252.0	-33.4	-0.2470 ug/L	-0.2470 ppb	17:56:15
2	Zn 213.857†	600.7	111.7	1.3465 ug/L	1.3465 ppb	17:56:35
2	SiO2†	532.8	66.3	5.1993 ug/L	5.1993 ppb	17:57:41
3	Sc Radial	3288.1	3288.1	98.1 %		17:55:43
3	Y RADIAL	2689.9	2689.9	98.06 %		17:55:43
3	Al 396.153Radial†	-64.2	-5.4	-11.587 ug/L	-11.587 ppb	17:55:43
3	Ca 317.933Radial†	16.1	6.2	24.585 ug/L	24.585 ppb	17:55:43
3	Fe 238.204 Radial†	10.5	2.1	57.521 ug/L	57.521 ppb	17:55:43
3	K 766.490 Radial†	2095.4	20.7	9.4598 ug/L	9.4598 ppb	17:55:23
3	Mg 279.077 IEC†	2.5	2.1	199.19 ug/L	199.19 ppb	17:55:43
3	Na 589.592 Radial†	-753.0	15.4	5.1267 ug/L	5.1267 ppb	17:55:23
3	Sr 421.552†	25.6	-9.6	-0.0950 ug/L	-0.0950 ppb	17:55:23
3	Sc 361.383	826466.8	826466.8	99.008 %		17:56:40
3	Y 371.029	709602.0	709602.0	99.153 %		17:56:40
3	Ag 328.068†	116.8	-41.1	-0.1886 ug/L	-0.1886 ppb	17:56:40
3	As 188.979†	-21.4	-5.6	-3.1108 ug/L	-3.1108 ppb	17:57:00
3	B 249.677†	-199.9	-111.7	-3.1414 ug/L	-3.1414 ppb	17:57:00
3	Ba 233.527†	21.6	29.0	0.2730 ug/L	0.2730 ppb	17:57:00
3	Be 313.107†	-3525.7	51.5	0.0220 ug/L	0.0220 ppb	17:56:40
3	Cd 226.502†	-149.0	-8.9	-0.1336 ug/L	-0.1336 ppb	17:57:00
3	Co 228.616†	-36.8	6.4	0.1652 ug/L	0.1652 ppb	17:57:00
3	Cr 267.716†	51.8	-13.4	-0.1716 ug/L	-0.1716 ppb	17:57:00
3	Cu 324.752†	6142.6	133.7	0.4333 ug/L	0.4333 ppb	17:56:40
3	Mn 257.610†	379.1	-6.8	-0.0113 ug/L	-0.0113 ppb	17:57:00
3	Mo 202.031†	9.5	-4.2	-0.3539 ug/L	-0.3539 ppb	17:57:00
3	Ni 231.604†	96.7	44.6	1.4062 ug/L	1.4062 ppb	17:57:00
3	P 214.914†	173.4	-0.3	-0.3425 ug/L	-0.3425 ppb	17:57:00
3	Pb 220.353†	-43.9	-0.4	-0.0779 ug/L	-0.0779 ppb	17:57:00
3	S 181.975 Axial†	32.1	1.5	2.7369 ug/L	2.7369 ppb	17:57:00
3	Sb 206.836†	30.7	2.5	1.0195 ug/L	1.0195 ppb	17:57:00
3	Se 196.026†	-24.1	-5.1	-4.0085 ug/L	-4.0085 ppb	17:57:00
3	Si 251.611†	496.4	49.0	1.8212 ug/L	1.8212 ppb	17:57:00
3	Sn 189.927†	6.5	-1.3	-0.2963 ug/L	-0.2963 ppb	17:57:00
3	Ti 334.940†	-1002.8	-52.6	-0.1023 ug/L	-0.1023 ppb	17:56:40
3	Tl 190.801†	-26.4	4.4	1.7132 ug/L	1.7132 ppb	17:57:00
3	U 409.014†	-1979.9	3.5	0.0948 ug/L	0.0948 ppb	17:56:40
3	V 292.402†	-1186.0	48.9	0.3726 ug/L	0.3726 ppb	17:56:40
3	Zn 213.857†	610.2	113.8	1.3627 ug/L	1.3627 ppb	17:57:00
3	SiO2†	505.2	31.8	2.5095 ug/L	2.5095 ppb	17:58:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	820551.1	98.300	%	0.6300				0.64%
Sc Radial	3383.4	101	%	6.6				6.56%
Y 371.029	704544.5	98.446	%	0.6215				0.63%
Y RADIAL	2772.0	101.0	%	6.71				6.64%
Ag 328.068†	-17.4	-0.0850	ug/L	0.13461	-0.0850	ppb	0.13461	158.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.0	8.6350	ug/L	21.43733	8.6350	ppb	21.43733	248.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.4	-3.0205	ug/L	1.14608	-3.0205	ppb	1.14608	37.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-101.6	-2.8496	ug/L	0.47854	-2.8496	ppb	0.47854	16.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.0	0.1402	ug/L	0.12923	0.1402	ppb	0.12923	92.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	35.7	0.0151	ug/L	0.01170	0.0151	ppb	0.01170	77.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.7	14.853	ug/L	9.1661	14.853	ppb	9.1661	61.71%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -5.0     -0.0719 ug/L       0.05713     -0.0719 ppb        0.05713  79.41%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -4.1     -0.1056 ug/L       0.26211     -0.1056 ppb        0.26211 248.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.4     -0.0431 ug/L       0.11165     -0.0431 ppb        0.11165 259.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             176.7      0.5698 ug/L       0.13360      0.5698 ppb        0.13360  23.45%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.1      3.3462 ug/L      46.96639      3.3462 ppb       46.96639 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        34.5      15.784 ug/L       80.1190      15.784 ppb        80.1190 507.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.4      136.50 ug/L        66.602      136.50 ppb         66.602  48.79%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.3      0.0095 ug/L       0.01825      0.0095 ppb        0.01825 191.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.6     -0.1379 ug/L       0.49044     -0.1379 ppb        0.49044 355.57%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        4.1      1.3806 ug/L      13.92551      1.3806 ppb       13.92551 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              50.5      1.5927 ug/L       0.26348      1.5927 ppb        0.26348  16.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                4.9      3.6124 ug/L       3.50992      3.6124 ppb        3.50992  97.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.3      0.6647 ug/L       1.65790      0.6647 ppb        1.65790 249.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.6      2.9210 ug/L       0.92832      2.9210 ppb        0.92832  31.78%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.0      0.8376 ug/L       0.73568      0.8376 ppb        0.73568  87.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.1     -0.9052 ug/L       3.10268     -0.9052 ppb        3.10268 342.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              57.9      2.1496 ug/L       0.38942      2.1496 ppb        0.38942  18.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.0      0.6860 ug/L       0.85108      0.6860 ppb        0.85108 124.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -7.9     -0.0783 ug/L       0.16844     -0.0783 ppb        0.16844 215.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -87.7     -0.1574 ug/L       0.05371     -0.1574 ppb        0.05371  34.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.2      2.0076 ug/L       0.79746      2.0076 ppb        0.79746  39.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -55.4     -1.6177 ug/L       4.02649     -1.6177 ppb        4.02649 248.90%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               19.0      0.1459 ug/L       0.34159      0.1459 ppb        0.34159 234.16%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             119.3      1.4357 ug/L       0.14059      1.4357 ppb        0.14059   9.79%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    42.8      3.3662 ug/L       1.58867      3.3662 ppb        1.58867  47.19%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/9/2010 19:10:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3292.5	3292.5	98.3	%			19:12:32
1	Y RADIAL	2691.5	2691.5	98.11	%			19:12:32
1	Al 396.153Radial†	2368.6	2470.3	5285.5	ug/L	5285.5	ppb	19:12:12
1	Ca 317.933Radial†	1269.7	1281.8	5087.1	ug/L	5087.1	ppb	19:12:32
1	Fe 238.204 Radial†	197.6	192.5	5364.9	ug/L	5364.9	ppb	19:12:32
1	K 766.490 Radial†	12753.2	10863.2	4966.0	ug/L	4966.0	ppb	19:12:12
1	Mg 279.077 IEC†	52.0	52.4	5087.0	ug/L	5087.0	ppb	19:12:32
1	Na 589.592 Radial†	32537.7	33892.7	11319	ug/L	11319	ppb	19:12:12
1	Sr 421.552†	55902.2	56850.0	563.69	ug/L	563.69	ppb	19:12:12
1	Sc 361.383	854700.3	854700.3	102.39	%			19:13:30
1	Y 371.029	722836.6	722836.6	101.00	%			19:13:30
1	Ag 328.068†	100869.4	98355.2	500.10	ug/L	500.10	ppb	19:13:35
1	As 188.979†	893.8	888.9	498.46	ug/L	498.46	ppb	19:13:55
1	B 249.677†	17655.5	17333.5	483.59	ug/L	483.59	ppb	19:13:35
1	Ba 233.527†	54271.2	53011.3	496.35	ug/L	496.35	ppb	19:13:35
1	Be 313.107†	1177540.6	1153660.2	498.98	ug/L	498.98	ppb	19:13:30
1	Cd 226.502†	34986.3	34311.1	495.85	ug/L	495.85	ppb	19:13:35
1	Co 228.616†	19910.5	19489.2	505.50	ug/L	505.50	ppb	19:13:35
1	Cr 267.716†	39018.0	38041.3	496.92	ug/L	496.92	ppb	19:13:35
1	Cu 324.752†	163528.4	153639.9	494.44	ug/L	494.44	ppb	19:13:35
1	Mn 257.610†	388514.3	379053.7	497.04	ug/L	497.04	ppb	19:13:30
1	Mo 202.031†	5789.4	5640.4	487.32	ug/L	487.32	ppb	19:13:55
1	Ni 231.604†	16429.5	15992.8	503.77	ug/L	503.77	ppb	19:13:35
1	P 214.914†	3472.7	3216.2	2346.2	ug/L	2346.2	ppb	19:13:55
1	Pb 220.353†	3192.7	3162.1	491.04	ug/L	491.04	ppb	19:13:55
1	S 181.975 Axial†	593.6	548.8	977.93	ug/L	977.93	ppb	19:13:55
1	Sb 206.836†	1251.2	1193.5	512.17	ug/L	512.17	ppb	19:13:55
1	Se 196.026†	607.8	612.8	516.36	ug/L	516.36	ppb	19:13:55
1	Si 251.611†	69186.0	67118.3	2482.6	ug/L	2482.6	ppb	19:13:35
1	Sn 189.927†	2228.7	2168.8	493.42	ug/L	493.42	ppb	19:13:55
1	Ti 334.940†	291465.3	285620.5	485.31	ug/L	485.31	ppb	19:13:35
1	Tl 190.801†	1282.6	1283.7	501.20	ug/L	501.20	ppb	19:13:55
1	U 409.014†	15662.5	17299.9	503.48	ug/L	503.48	ppb	19:13:35
1	V 292.402†	63577.2	63339.5	500.91	ug/L	500.91	ppb	19:13:35
1	Zn 213.857†	42605.2	41108.1	494.10	ug/L	494.10	ppb	19:13:35
1	SiO2†	69264.4	67168.8	5263.1	ug/L	5263.1	ppb	19:15:02
2	Sc Radial	3309.4	3309.4	98.8	%			19:12:57
2	Y RADIAL	2715.5	2715.5	98.99	%			19:12:57
2	Al 396.153Radial†	2306.1	2394.7	5122.3	ug/L	5122.3	ppb	19:12:37
2	Ca 317.933Radial†	1276.3	1281.9	5087.3	ug/L	5087.3	ppb	19:12:57
2	Fe 238.204 Radial†	197.0	190.8	5318.9	ug/L	5318.9	ppb	19:12:57
2	K 766.490 Radial†	12619.1	10661.0	4873.5	ug/L	4873.5	ppb	19:12:37
2	Mg 279.077 IEC†	55.6	55.8	5416.4	ug/L	5416.4	ppb	19:12:57
2	Na 589.592 Radial†	31826.9	33003.7	11022	ug/L	11022	ppb	19:12:37
2	Sr 421.552†	54671.9	55313.3	548.45	ug/L	548.45	ppb	19:12:37
2	Sc 361.383	838881.1	838881.1	100.50	%			19:14:01
2	Y 371.029	709946.8	709946.8	99.201	%			19:14:01
2	Ag 328.068†	100013.9	99361.7	505.20	ug/L	505.20	ppb	19:14:06
2	As 188.979†	891.4	903.0	506.29	ug/L	506.29	ppb	19:14:26
2	B 249.677†	17431.3	17435.6	486.44	ug/L	486.44	ppb	19:14:06
2	Ba 233.527†	54073.6	53814.2	503.86	ug/L	503.86	ppb	19:14:06
2	Be 313.107†	1161706.6	1159591.4	501.55	ug/L	501.55	ppb	19:14:01
2	Cd 226.502†	34831.7	34801.5	502.94	ug/L	502.94	ppb	19:14:06
2	Co 228.616†	19767.6	19713.7	511.33	ug/L	511.33	ppb	19:14:06
2	Cr 267.716†	38824.6	38567.4	503.79	ug/L	503.79	ppb	19:14:06
2	Cu 324.752†	161576.9	154709.8	497.88	ug/L	497.88	ppb	19:14:06
2	Mn 257.610†	383480.4	381200.0	499.83	ug/L	499.83	ppb	19:14:01
2	Mo 202.031†	5808.5	5766.0	498.16	ug/L	498.16	ppb	19:14:26
2	Ni 231.604†	16364.6	16230.9	511.27	ug/L	511.27	ppb	19:14:06

2	P 214.914†	3481.8	3289.3	2401.1 ug/L	2401.1 ppb	19:14:26
2	Pb 220.353†	3224.9	3252.9	505.10 ug/L	505.10 ppb	19:14:26
2	S 181.975 Axial†	597.0	563.2	1003.5 ug/L	1003.5 ppb	19:14:26
2	Sb 206.836†	1249.2	1214.5	521.26 ug/L	521.26 ppb	19:14:26
2	Se 196.026†	599.5	615.7	518.58 ug/L	518.58 ppb	19:14:26
2	Si 251.611†	68580.4	67789.9	2507.4 ug/L	2507.4 ppb	19:14:06
2	Sn 189.927†	2227.6	2208.8	502.51 ug/L	502.51 ppb	19:14:26
2	Ti 334.940†	289225.2	288759.5	490.62 ug/L	490.62 ppb	19:14:06
2	Tl 190.801†	1268.8	1293.6	505.05 ug/L	505.05 ppb	19:14:26
2	U 409.014†	15370.4	17297.8	503.41 ug/L	503.41 ppb	19:14:06
2	V 292.402†	63346.6	64281.0	508.42 ug/L	508.42 ppb	19:14:06
2	Zn 213.857†	42323.4	41612.3	500.17 ug/L	500.17 ppb	19:14:06
2	SiO2†	69665.0	68843.1	5394.3 ug/L	5394.3 ppb	19:15:07
3	Sc Radial	3302.8	3302.8	98.6 %		19:13:23
3	Y RADIAL	2699.9	2699.9	98.42 %		19:13:23
3	Al 396.153Radial†	2335.4	2429.1	5196.7 ug/L	5196.7 ppb	19:13:02
3	Ca 317.933Radial†	1272.5	1280.7	5082.4 ug/L	5082.4 ppb	19:13:23
3	Fe 238.204 Radial†	192.7	186.8	5207.9 ug/L	5207.9 ppb	19:13:23
3	K 766.490 Radial†	12687.9	10756.3	4917.1 ug/L	4917.1 ppb	19:13:02
3	Mg 279.077 IEC†	54.6	54.9	5330.1 ug/L	5330.1 ppb	19:13:23
3	Na 589.592 Radial†	32104.1	33349.4	11137 ug/L	11137 ppb	19:13:02
3	Sr 421.552†	55125.8	55884.6	554.12 ug/L	554.12 ppb	19:13:02
3	Sc 361.383	850641.7	850641.7	101.90 %		19:14:32
3	Y 371.029	721192.7	721192.7	100.77 %		19:14:32
3	Ag 328.068†	100101.1	98071.3	498.61 ug/L	498.61 ppb	19:14:37
3	As 188.979†	887.7	887.1	497.38 ug/L	497.38 ppb	19:14:57
3	B 249.677†	17478.1	17241.7	481.04 ug/L	481.04 ppb	19:14:37
3	Ba 233.527†	53885.8	52886.0	495.17 ug/L	495.17 ppb	19:14:37
3	Be 313.107†	1178730.0	1160314.4	501.85 ug/L	501.85 ppb	19:14:32
3	Cd 226.502†	34734.1	34226.5	494.64 ug/L	494.64 ppb	19:14:37
3	Co 228.616†	19740.0	19414.6	503.57 ug/L	503.57 ppb	19:14:37
3	Cr 267.716†	38705.3	37916.3	495.28 ug/L	495.28 ppb	19:14:37
3	Cu 324.752†	161999.5	152901.6	492.06 ug/L	492.06 ppb	19:14:37
3	Mn 257.610†	387184.0	379558.7	497.68 ug/L	497.68 ppb	19:14:32
3	Mo 202.031†	5803.2	5681.0	490.81 ug/L	490.81 ppb	19:14:57
3	Ni 231.604†	16307.9	15950.1	502.43 ug/L	502.43 ppb	19:14:37
3	P 214.914†	3459.2	3219.2	2349.1 ug/L	2349.1 ppb	19:14:57
3	Pb 220.353†	3188.4	3172.8	492.71 ug/L	492.71 ppb	19:14:57
3	S 181.975 Axial†	584.5	542.7	967.01 ug/L	967.01 ppb	19:14:57
3	Sb 206.836†	1246.9	1195.1	512.92 ug/L	512.92 ppb	19:14:57
3	Se 196.026†	601.9	609.8	513.47 ug/L	513.47 ppb	19:14:57
3	Si 251.611†	68471.9	66739.9	2468.6 ug/L	2468.6 ppb	19:14:37
3	Sn 189.927†	2219.4	2170.1	493.72 ug/L	493.72 ppb	19:14:57
3	Ti 334.940†	289170.6	284726.9	483.77 ug/L	483.77 ppb	19:14:37
3	Tl 190.801†	1260.4	1267.9	495.06 ug/L	495.06 ppb	19:14:57
3	U 409.014†	15660.2	17370.7	505.57 ug/L	505.57 ppb	19:14:37
3	V 292.402†	63262.3	63326.8	500.89 ug/L	500.89 ppb	19:14:37
3	Zn 213.857†	42212.4	40921.1	491.87 ug/L	491.87 ppb	19:14:37
3	SiO2†	68093.9	66342.9	5198.1 ug/L	5198.1 ppb	19:15:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	848074.4	101.60	%	0.984				0.97%
Sc Radial	3301.6	98.5	%	0.25				0.26%
Y 371.029	717992.0	100.33	%	0.980				0.98%
Y RADIAL	2702.3	98.51	%	0.444				0.45%
Ag 328.068†	98596.1	501.30	ug/L	3.454	501.30	ppb	3.454	0.69%
QC value within limits for Ag 328.068 Recovery = 100.26%								
Al 396.153Radial†	2431.3	5201.5	ug/L	81.67	5201.5	ppb	81.67	1.57%
QC value within limits for Al 396.153Radial Recovery = 104.03%								
As 188.979†	893.0	500.71	ug/L	4.863	500.71	ppb	4.863	0.97%
QC value within limits for As 188.979 Recovery = 100.14%								
B 249.677†	17336.9	483.69	ug/L	2.699	483.69	ppb	2.699	0.56%
QC value within limits for B 249.677 Recovery = 96.74%								
Ba 233.527†	53237.2	498.46	ug/L	4.714	498.46	ppb	4.714	0.95%
QC value within limits for Ba 233.527 Recovery = 99.69%								
Be 313.107†	1157855.3	500.80	ug/L	1.577	500.80	ppb	1.577	0.31%
QC value within limits for Be 313.107 Recovery = 100.16%								
Ca 317.933Radial†	1281.5	5085.6	ug/L	2.78	5085.6	ppb	2.78	0.05%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.71%
Cd 226.502†            34446.4      497.81 ug/L         4.488      497.81 ppb          4.488   0.90%
   QC value within limits for Cd 226.502  Recovery = 99.56%
Co 228.616†            19539.2      506.80 ug/L         4.040      506.80 ppb          4.040   0.80%
   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            38175.0      498.66 ug/L         4.515      498.66 ppb          4.515   0.91%
   QC value within limits for Cr 267.716  Recovery = 99.73%
Cu 324.752†           153750.4      494.80 ug/L         2.929      494.80 ppb          2.929   0.59%
   QC value within limits for Cu 324.752  Recovery = 98.96%
Fe 238.204 Radial†       190.0      5297.2 ug/L        80.74      5297.2 ppb          80.74   1.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.94%
K 766.490 Radial†      10760.1      4918.9 ug/L        46.25      4918.9 ppb          46.25   0.94%
   QC value within limits for K 766.490 Radial  Recovery = 98.38%
Mg 279.077 IEC†           54.4      5277.8 ug/L       170.85      5277.8 ppb         170.85   3.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.56%
Mn 257.610†           379937.5      498.18 ug/L         1.465      498.18 ppb          1.465   0.29%
   QC value within limits for Mn 257.610  Recovery = 99.64%
Mo 202.031†             5695.8      492.10 ug/L         5.532      492.10 ppb          5.532   1.12%
   QC value within limits for Mo 202.031  Recovery = 98.42%
Na 589.592 Radial†     33415.3       11159 ug/L       149.7         11159 ppb         149.7   1.34%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 111.59%
Ni 231.604†            16057.9      505.82 ug/L         4.767      505.82 ppb          4.767   0.94%
   QC value within limits for Ni 231.604  Recovery = 101.16%
P 214.914†              3241.6      2365.5 ug/L        30.89      2365.5 ppb          30.89   1.31%
   QC value within limits for P 214.914  Recovery = 94.62%
Pb 220.353†             3195.9      496.28 ug/L         7.681      496.28 ppb          7.681   1.55%
   QC value within limits for Pb 220.353  Recovery = 99.26%
S 181.975 Axial†         551.6      982.83 ug/L        18.751      982.83 ppb         18.751   1.91%
   QC value within limits for S 181.975 Axial  Recovery = 98.28%
Sb 206.836†             1201.1      515.45 ug/L         5.047      515.45 ppb          5.047   0.98%
   QC value within limits for Sb 206.836  Recovery = 103.09%
Se 196.026†              612.8      516.14 ug/L         2.559      516.14 ppb          2.559   0.50%
   QC value within limits for Se 196.026  Recovery = 103.23%
Si 251.611†            67216.0      2486.2 ug/L        19.66      2486.2 ppb          19.66   0.79%
   QC value within limits for Si 251.611  Recovery = 99.45%
Sn 189.927†             2182.6      496.55 ug/L         5.165      496.55 ppb          5.165   1.04%
   QC value within limits for Sn 189.927  Recovery = 99.31%
Sr 421.552†            56016.0      555.42 ug/L         7.702      555.42 ppb          7.702   1.39%
   QC value greater than the upper limit for Sr 421.552  Recovery = 111.08%
Ti 334.940†           286368.9      486.57 ug/L         3.591      486.57 ppb          3.591   0.74%
   QC value within limits for Ti 334.940  Recovery = 97.31%
Tl 190.801†             1281.7      500.43 ug/L         5.039      500.43 ppb          5.039   1.01%
   QC value within limits for Tl 190.801  Recovery = 100.09%
U 409.014†             17322.8      504.15 ug/L         1.227      504.15 ppb          1.227   0.24%
   QC value within limits for U 409.014  Recovery = 100.83%
V 292.402†             63649.1      503.41 ug/L         4.339      503.41 ppb          4.339   0.86%
   QC value within limits for V 292.402  Recovery = 100.68%
Zn 213.857†            41213.8      495.38 ug/L         4.298      495.38 ppb          4.298   0.87%
   QC value within limits for Zn 213.857  Recovery = 99.08%
SiO2†                  67451.6      5285.2 ug/L        99.95      5285.2 ppb          99.95   1.89%
   QC value within limits for SiO2  Recovery = 98.83%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/9/2010 19:17:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3305.0	3305.0	98.6	%			19:19:35
1	Y RADIAL	2719.2	2719.2	99.12	%			19:19:35
1	Al 396.153Radial†	-64.7	-5.6	-12.004	ug/L	-12.004	ppb	19:19:35
1	Ca 317.933Radial†	10.8	0.7	2.7454	ug/L	2.7454	ppb	19:19:35
1	Fe 238.204 Radial†	8.3	-0.3	-7.3554	ug/L	-7.3554	ppb	19:19:35
1	K 766.490 Radial†	2057.9	-28.3	-12.936	ug/L	-12.936	ppb	19:19:15
1	Mg 279.077 IEC†	0.3	-0.1	-12.189	ug/L	-12.189	ppb	19:19:35
1	Na 589.592 Radial†	-802.9	-31.3	-10.454	ug/L	-10.454	ppb	19:19:15
1	Sr 421.552†	0.4	-35.3	-0.3496	ug/L	-0.3496	ppb	19:19:15
1	Sc 361.383	827842.1	827842.1	99.173	%			19:20:31
1	Y 371.029	709656.8	709656.8	99.161	%			19:20:31
1	Ag 328.068†	178.8	21.2	0.1068	ug/L	0.1068	ppb	19:20:31
1	As 188.979†	-18.8	-3.0	-1.6845	ug/L	-1.6845	ppb	19:20:51
1	B 249.677†	-255.8	-167.7	-4.6994	ug/L	-4.6994	ppb	19:20:51
1	Ba 233.527†	8.9	16.1	0.1508	ug/L	0.1508	ppb	19:20:51
1	Be 313.107†	-3501.5	81.8	0.0351	ug/L	0.0351	ppb	19:20:31
1	Cd 226.502†	-149.4	-9.1	-0.1304	ug/L	-0.1304	ppb	19:20:51
1	Co 228.616†	-39.4	3.8	0.0973	ug/L	0.0973	ppb	19:20:51
1	Cr 267.716†	75.9	10.8	0.1420	ug/L	0.1420	ppb	19:20:51
1	Cu 324.752†	6091.3	71.6	0.2309	ug/L	0.2309	ppb	19:20:31
1	Mn 257.610†	371.8	-14.8	-0.0196	ug/L	-0.0196	ppb	19:20:51
1	Mo 202.031†	5.9	-7.8	-0.6733	ug/L	-0.6733	ppb	19:20:51
1	Ni 231.604†	92.4	40.1	1.2641	ug/L	1.2641	ppb	19:20:51
1	P 214.914†	190.9	17.1	12.973	ug/L	12.973	ppb	19:20:51
1	Pb 220.353†	-38.9	4.7	0.7289	ug/L	0.7289	ppb	19:20:51
1	S 181.975 Axial†	28.7	-1.9	-3.4610	ug/L	-3.4610	ppb	19:20:51
1	Sb 206.836†	38.2	10.0	4.1316	ug/L	4.1316	ppb	19:20:51
1	Se 196.026†	-19.7	-0.6	-0.5238	ug/L	-0.5238	ppb	19:20:51
1	Si 251.611†	497.3	49.1	1.8271	ug/L	1.8271	ppb	19:20:51
1	Sn 189.927†	6.0	-1.7	-0.3961	ug/L	-0.3961	ppb	19:20:51
1	Ti 334.940†	-1003.4	-51.5	-0.0855	ug/L	-0.0855	ppb	19:20:31
1	Tl 190.801†	-29.2	1.6	0.6217	ug/L	0.6217	ppb	19:20:51
1	U 409.014†	-2039.4	-53.2	-1.5541	ug/L	-1.5541	ppb	19:20:31
1	V 292.402†	-1219.8	16.8	0.1193	ug/L	0.1193	ppb	19:20:31
1	Zn 213.857†	576.3	78.7	0.9474	ug/L	0.9474	ppb	19:20:51
1	SiO2†	480.0	5.6	0.4551	ug/L	0.4551	ppb	19:22:02
2	Sc Radial	3263.8	3263.8	97.4	%			19:20:00
2	Y RADIAL	2687.8	2687.8	97.98	%			19:20:00
2	Al 396.153Radial†	-66.1	-7.8	-16.828	ug/L	-16.828	ppb	19:20:00
2	Ca 317.933Radial†	12.8	2.9	11.664	ug/L	11.664	ppb	19:20:00
2	Fe 238.204 Radial†	9.4	1.1	29.631	ug/L	29.631	ppb	19:20:00
2	K 766.490 Radial†	2182.2	125.7	57.524	ug/L	57.524	ppb	19:19:40
2	Mg 279.077 IEC†	1.1	0.6	61.352	ug/L	61.352	ppb	19:20:00
2	Na 589.592 Radial†	-803.1	-41.8	-13.949	ug/L	-13.949	ppb	19:19:40
2	Sr 421.552†	7.6	-27.9	-0.2765	ug/L	-0.2765	ppb	19:19:40
2	Sc 361.383	834882.8	834882.8	100.02	%			19:20:57
2	Y 371.029	716026.4	716026.4	100.05	%			19:20:57
2	Ag 328.068†	159.4	0.3	0.0159	ug/L	0.0159	ppb	19:20:57
2	As 188.979†	-21.6	-5.6	-3.1254	ug/L	-3.1254	ppb	19:21:17
2	B 249.677†	-264.3	-174.0	-4.8822	ug/L	-4.8822	ppb	19:21:17
2	Ba 233.527†	6.8	14.0	0.1322	ug/L	0.1322	ppb	19:21:17
2	Be 313.107†	-3496.1	117.0	0.0504	ug/L	0.0504	ppb	19:20:57
2	Cd 226.502†	-157.8	-16.2	-0.2368	ug/L	-0.2368	ppb	19:21:17
2	Co 228.616†	-50.0	-6.4	-0.1670	ug/L	-0.1670	ppb	19:21:17
2	Cr 267.716†	62.9	-2.8	-0.0333	ug/L	-0.0333	ppb	19:21:17
2	Cu 324.752†	6121.3	49.9	0.1645	ug/L	0.1645	ppb	19:20:57
2	Mn 257.610†	385.3	-4.4	-0.0054	ug/L	-0.0054	ppb	19:21:17
2	Mo 202.031†	14.7	0.9	0.0790	ug/L	0.0790	ppb	19:21:17
2	Ni 231.604†	105.9	52.8	1.6653	ug/L	1.6653	ppb	19:21:17

2	P 214.914†	169.1	-6.4	-4.9039 ug/L	-4.9039 ppb	19:21:17
2	Pb 220.353†	-34.4	9.5	1.4621 ug/L	1.4621 ppb	19:21:17
2	S 181.975 Axial†	29.7	-1.2	-2.0577 ug/L	-2.0577 ppb	19:21:17
2	Sb 206.836†	28.5	0.0	0.0040 ug/L	0.0040 ppb	19:21:17
2	Se 196.026†	-22.4	-3.2	-2.4916 ug/L	-2.4916 ppb	19:21:17
2	Si 251.611†	488.9	36.4	1.3493 ug/L	1.3493 ppb	19:21:17
2	Sn 189.927†	5.9	-1.9	-0.4386 ug/L	-0.4386 ppb	19:21:17
2	Ti 334.940†	-996.6	-36.2	-0.0631 ug/L	-0.0631 ppb	19:20:57
2	Tl 190.801†	-27.9	3.2	1.2377 ug/L	1.2377 ppb	19:21:17
2	U 409.014†	-2152.0	-148.5	-4.3408 ug/L	-4.3408 ppb	19:20:57
2	V 292.402†	-1190.2	56.8	0.4330 ug/L	0.4330 ppb	19:20:57
2	Zn 213.857†	573.3	70.8	0.8436 ug/L	0.8436 ppb	19:21:17
2	SiO2†	495.7	17.1	1.3406 ug/L	1.3406 ppb	19:22:22
3	Sc Radial	3281.7	3281.7	97.9 %		19:20:25
3	Y RADIAL	2702.3	2702.3	98.51 %		19:20:25
3	Al 396.153Radial†	-63.9	-5.2	-11.273 ug/L	-11.273 ppb	19:20:25
3	Ca 317.933Radial†	9.8	-0.2	-0.8300 ug/L	-0.8300 ppb	19:20:25
3	Fe 238.204 Radial†	8.3	-0.2	-5.3618 ug/L	-5.3618 ppb	19:20:25
3	K 766.490 Radial†	2079.6	8.7	4.0038 ug/L	4.0038 ppb	19:20:05
3	Mg 279.077 IEC†	2.5	2.1	205.36 ug/L	205.36 ppb	19:20:25
3	Na 589.592 Radial†	-843.4	-78.4	-26.198 ug/L	-26.198 ppb	19:20:05
3	Sr 421.552†	8.8	-26.7	-0.2648 ug/L	-0.2648 ppb	19:20:05
3	Sc 361.383	838221.9	838221.9	100.42 %		19:21:22
3	Y 371.029	718897.9	718897.9	100.45 %		19:21:22
3	Ag 328.068†	103.2	-56.3	-0.2842 ug/L	-0.2842 ppb	19:21:22
3	As 188.979†	-14.5	1.5	0.8262 ug/L	0.8262 ppb	19:21:42
3	B 249.677†	-268.3	-177.0	-4.9604 ug/L	-4.9604 ppb	19:21:42
3	Ba 233.527†	-3.5	3.7	0.0346 ug/L	0.0346 ppb	19:21:42
3	Be 313.107†	-3484.2	142.8	0.0616 ug/L	0.0616 ppb	19:21:22
3	Cd 226.502†	-146.5	-4.3	-0.0610 ug/L	-0.0610 ppb	19:21:42
3	Co 228.616†	-44.7	-0.9	-0.0239 ug/L	-0.0239 ppb	19:21:42
3	Cr 267.716†	66.6	0.6	0.0087 ug/L	0.0087 ppb	19:21:42
3	Cu 324.752†	6085.4	-10.3	-0.0326 ug/L	-0.0326 ppb	19:21:22
3	Mn 257.610†	373.9	-17.4	-0.0317 ug/L	-0.0317 ppb	19:21:42
3	Mo 202.031†	14.9	1.1	0.0908 ug/L	0.0908 ppb	19:21:42
3	Ni 231.604†	104.1	50.7	1.5970 ug/L	1.5970 ppb	19:21:42
3	P 214.914†	168.3	-7.8	-5.9435 ug/L	-5.9435 ppb	19:21:42
3	Pb 220.353†	-47.8	-3.7	-0.5748 ug/L	-0.5748 ppb	19:21:42
3	S 181.975 Axial†	26.3	-4.7	-8.2989 ug/L	-8.2989 ppb	19:21:42
3	Sb 206.836†	16.4	-12.1	-5.0243 ug/L	-5.0243 ppb	19:21:42
3	Se 196.026†	-19.4	-0.1	-0.1355 ug/L	-0.1355 ppb	19:21:42
3	Si 251.611†	496.7	42.3	1.5660 ug/L	1.5660 ppb	19:21:42
3	Sn 189.927†	4.1	-3.7	-0.8505 ug/L	-0.8505 ppb	19:21:42
3	Ti 334.940†	-967.4	-3.1	-0.0216 ug/L	-0.0216 ppb	19:21:22
3	Tl 190.801†	-27.3	3.9	1.5199 ug/L	1.5199 ppb	19:21:42
3	U 409.014†	-2061.1	-49.4	-1.4420 ug/L	-1.4420 ppb	19:21:22
3	V 292.402†	-1233.4	18.5	0.1478 ug/L	0.1478 ppb	19:21:22
3	Zn 213.857†	566.3	61.5	0.7374 ug/L	0.7374 ppb	19:21:42
3	SiO2†	481.5	1.0	0.0752 ug/L	0.0752 ppb	19:22:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	833648.9	99.869	%	0.6348				0.64%
Sc Radial	3283.5	98.0	%	0.62				0.63%
Y 371.029	714860.3	99.888	%	0.6609				0.66%
Y RADIAL	2703.1	98.54	%	0.574				0.58%
Ag 328.068†	-11.6	-0.0538	ug/L	0.20463	-0.0538	ppb	0.20463	380.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.2	-13.368	ug/L	3.0181	-13.368	ppb	3.0181	22.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-1.3279	ug/L	1.99980	-1.3279	ppb	1.99980	150.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-172.9	-4.8473	ug/L	0.13391	-4.8473	ppb	0.13391	2.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.3	0.1059	ug/L	0.06242	0.1059	ppb	0.06242	58.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	113.9	0.0490	ug/L	0.01330	0.0490	ppb	0.01330	27.13%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.1	4.5264	ug/L	6.43455	4.5264	ppb	6.43455	142.16%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -9.9     -0.1427 ug/L       0.08855     -0.1427 ppb        0.08855  62.03%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.2     -0.0312 ug/L       0.13227     -0.0312 ppb        0.13227 423.97%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 2.9      0.0391 ug/L       0.09150      0.0391 ppb        0.09150 233.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                37.1      0.1209 ug/L       0.13705      0.1209 ppb        0.13705 113.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.2      5.6380 ug/L      20.80258      5.6380 ppb       20.80258 368.97%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          35.4      16.197 ug/L       36.7788      16.197 ppb        36.7788 227.07%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.9      84.843 ug/L      110.6628      84.843 ppb       110.6628 130.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -12.2     -0.0189 ug/L       0.01317     -0.0189 ppb        0.01317  69.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.0     -0.1679 ug/L       0.43776     -0.1679 ppb        0.43776 260.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -50.5     -16.867 ug/L        8.2678     -16.867 ppb         8.2678  49.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                47.9      1.5088 ug/L       0.21464      1.5088 ppb        0.21464  14.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.0      0.7085 ug/L      10.63410      0.7085 ppb       10.63410 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.5      0.5388 ug/L       1.03165      0.5388 ppb        1.03165 191.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.6     -4.6059 ug/L       3.27432     -4.6059 ppb        3.27432  71.09%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.7     -0.2962 ug/L       4.58533     -0.2962 ppb        4.58533 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.3     -1.0503 ug/L       1.26321     -1.0503 ppb        1.26321 120.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                42.6      1.5808 ug/L       0.23925      1.5808 ppb        0.23925  15.13%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.5     -0.5617 ug/L       0.25098     -0.5617 ppb        0.25098  44.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -29.9     -0.2970 ug/L       0.04593     -0.2970 ppb        0.04593  15.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -30.3     -0.0567 ug/L       0.03242     -0.0567 ppb        0.03242  57.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.9      1.1264 ug/L       0.45934      1.1264 ppb        0.45934  40.78%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -83.7     -2.4456 ug/L       1.64222     -2.4456 ppb        1.64222  67.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 30.7      0.2334 ug/L       0.17345      0.2334 ppb        0.17345  74.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.3      0.8428 ug/L       0.10503      0.8428 ppb        0.10503  12.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       7.9      0.6236 ug/L       0.64934      0.6236 ppb        0.64934 104.12%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 23 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/9/2010 20:21:23**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3287.1	3287.1	98.1	%			20:23:35
1	Y RADIAL	2664.6	2664.6	97.13	%			20:23:35
1	Al 396.153Radial†	2305.3	2409.7	5154.3	ug/L	5154.3	ppb	20:23:15
1	Ca 317.933Radial†	1281.8	1296.3	5144.3	ug/L	5144.3	ppb	20:23:35
1	Fe 238.204 Radial†	193.3	188.4	5252.1	ug/L	5252.1	ppb	20:23:35
1	K 766.490 Radial†	12848.4	10981.4	5020.2	ug/L	5020.2	ppb	20:23:15
1	Mg 279.077 IEC†	53.5	54.1	5252.3	ug/L	5252.3	ppb	20:23:35
1	Na 589.592 Radial†	31051.2	32431.9	10831	ug/L	10831	ppb	20:23:15
1	Sr 421.552†	54166.6	55174.2	547.07	ug/L	547.07	ppb	20:23:15
1	Sc 361.383	839243.1	839243.1	100.54	%			20:24:32
1	Y 371.029	709912.0	709912.0	99.196	%			20:24:32
1	Ag 328.068†	100441.6	99744.2	507.11	ug/L	507.11	ppb	20:24:37
1	As 188.979†	897.4	908.6	509.37	ug/L	509.37	ppb	20:24:57
1	B 249.677†	17545.2	17541.4	489.40	ug/L	489.40	ppb	20:24:37
1	Ba 233.527†	54470.7	54185.9	507.33	ug/L	507.33	ppb	20:24:37
1	Be 313.107†	1171341.3	1168675.7	505.48	ug/L	505.48	ppb	20:24:32
1	Cd 226.502†	35155.5	35108.7	507.39	ug/L	507.39	ppb	20:24:37
1	Co 228.616†	19994.3	19930.7	516.97	ug/L	516.97	ppb	20:24:37
1	Cr 267.716†	39036.9	38761.9	506.32	ug/L	506.32	ppb	20:24:37
1	Cu 324.752†	162407.4	155466.5	500.31	ug/L	500.31	ppb	20:24:37
1	Mn 257.610†	381195.6	378762.8	496.64	ug/L	496.64	ppb	20:24:37
1	Mo 202.031†	5895.5	5850.1	505.41	ug/L	505.41	ppb	20:24:57
1	Ni 231.604†	16482.3	16340.9	514.74	ug/L	514.74	ppb	20:24:37
1	P 214.914†	3531.5	3337.2	2437.1	ug/L	2437.1	ppb	20:24:57
1	Pb 220.353†	3259.7	3286.1	510.28	ug/L	510.28	ppb	20:24:57
1	S 181.975 Axial†	605.4	571.3	1018.1	ug/L	1018.1	ppb	20:24:57
1	Sb 206.836†	1265.5	1230.2	528.00	ug/L	528.00	ppb	20:24:57
1	Se 196.026†	614.3	630.2	530.20	ug/L	530.20	ppb	20:24:57
1	Si 251.611†	69054.5	68231.9	2523.7	ug/L	2523.7	ppb	20:24:37
1	Sn 189.927†	2254.8	2234.9	508.45	ug/L	508.45	ppb	20:24:57
1	Ti 334.940†	291020.3	290420.8	493.46	ug/L	493.46	ppb	20:24:37
1	Tl 190.801†	1289.6	1313.7	512.84	ug/L	512.84	ppb	20:24:57
1	U 409.014†	15488.4	17408.5	506.64	ug/L	506.64	ppb	20:24:37
1	V 292.402†	63615.4	64521.2	510.40	ug/L	510.40	ppb	20:24:37
1	Zn 213.857†	42539.8	41809.4	502.55	ug/L	502.55	ppb	20:24:37
1	SiO2†	69055.4	68206.8	5344.2	ug/L	5344.2	ppb	20:26:04
2	Sc Radial	3271.7	3271.7	97.7	%			20:24:00
2	Y RADIAL	2668.2	2668.2	97.26	%			20:24:00
2	Al 396.153Radial†	2246.2	2360.2	5048.3	ug/L	5048.3	ppb	20:23:40
2	Ca 317.933Radial†	1275.3	1295.8	5142.4	ug/L	5142.4	ppb	20:24:00
2	Fe 238.204 Radial†	191.3	187.3	5221.3	ug/L	5221.3	ppb	20:24:00
2	K 766.490 Radial†	12808.5	11002.1	5029.8	ug/L	5029.8	ppb	20:23:40
2	Mg 279.077 IEC†	54.5	55.3	5368.4	ug/L	5368.4	ppb	20:24:00
2	Na 589.592 Radial†	30033.3	31538.2	10532	ug/L	10532	ppb	20:23:40
2	Sr 421.552†	52538.4	53766.3	533.11	ug/L	533.11	ppb	20:23:40
2	Sc 361.383	844914.4	844914.4	101.22	%			20:25:03
2	Y 371.029	713324.7	713324.7	99.673	%			20:25:03
2	Ag 328.068†	100372.9	99005.7	503.35	ug/L	503.35	ppb	20:25:08
2	As 188.979†	894.6	899.8	504.47	ug/L	504.47	ppb	20:25:28
2	B 249.677†	17546.8	17425.9	486.18	ug/L	486.18	ppb	20:25:08
2	Ba 233.527†	54311.4	53664.9	502.46	ug/L	502.46	ppb	20:25:08
2	Be 313.107†	1173281.2	1162772.1	502.93	ug/L	502.93	ppb	20:25:03
2	Cd 226.502†	35136.8	34855.5	503.74	ug/L	503.74	ppb	20:25:08
2	Co 228.616†	19971.6	19774.8	512.92	ug/L	512.92	ppb	20:25:08
2	Cr 267.716†	38917.1	38383.0	501.37	ug/L	501.37	ppb	20:25:08
2	Cu 324.752†	162417.5	154392.2	496.85	ug/L	496.85	ppb	20:25:08
2	Mn 257.610†	380623.2	375652.3	492.56	ug/L	492.56	ppb	20:25:08
2	Mo 202.031†	5855.8	5771.6	498.63	ug/L	498.63	ppb	20:25:28
2	Ni 231.604†	16425.9	16175.2	509.52	ug/L	509.52	ppb	20:25:08

2	P 214.914†	3518.2	3300.5	2409.9 ug/L	2409.9 ppb	20:25:28
2	Pb 220.353†	3255.3	3260.0	506.21 ug/L	506.21 ppb	20:25:28
2	S 181.975 Axial†	599.3	561.2	1000.1 ug/L	1000.1 ppb	20:25:28
2	Sb 206.836†	1268.5	1224.7	525.51 ug/L	525.51 ppb	20:25:28
2	Se 196.026†	602.6	614.5	517.31 ug/L	517.31 ppb	20:25:28
2	Si 251.611†	69087.2	67803.2	2507.9 ug/L	2507.9 ppb	20:25:08
2	Sn 189.927†	2250.0	2215.1	503.95 ug/L	503.95 ppb	20:25:28
2	Ti 334.940†	290715.7	288176.9	489.63 ug/L	489.63 ppb	20:25:08
2	Tl 190.801†	1282.4	1298.1	506.74 ug/L	506.74 ppb	20:25:28
2	U 409.014†	15845.3	17657.7	513.93 ug/L	513.93 ppb	20:25:08
2	V 292.402†	63454.5	63937.5	505.78 ug/L	505.78 ppb	20:25:08
2	Zn 213.857†	42496.7	41482.7	498.63 ug/L	498.63 ppb	20:25:08
2	SiO2†	68445.1	67142.8	5260.8 ug/L	5260.8 ppb	20:26:09
3	Sc Radial	3280.9	3280.9	97.9 %		20:24:25
3	Y RADIAL	2679.9	2679.9	97.69 %		20:24:25
3	Al 396.153Radial†	2297.0	2405.7	5145.9 ug/L	5145.9 ppb	20:24:05
3	Ca 317.933Radial†	1280.3	1297.2	5148.2 ug/L	5148.2 ppb	20:24:25
3	Fe 238.204 Radial†	192.5	188.0	5240.8 ug/L	5240.8 ppb	20:24:25
3	K 766.490 Radial†	12827.1	10984.4	5021.8 ug/L	5021.8 ppb	20:24:05
3	Mg 279.077 IEC†	56.0	56.7	5502.2 ug/L	5502.2 ppb	20:24:25
3	Na 589.592 Radial†	29898.4	31314.4	10458 ug/L	10458 ppb	20:24:05
3	Sr 421.552†	52789.9	53872.6	534.16 ug/L	534.16 ppb	20:24:05
3	Sc 361.383	838426.3	838426.3	100.44 %		20:25:34
3	Y 371.029	708810.5	708810.5	99.042 %		20:25:34
3	Ag 328.068†	101156.3	100553.0	511.20 ug/L	511.20 ppb	20:25:39
3	As 188.979†	882.3	894.4	501.54 ug/L	501.54 ppb	20:25:59
3	B 249.677†	17833.3	17845.3	497.92 ug/L	497.92 ppb	20:25:39
3	Ba 233.527†	54476.3	54244.3	507.89 ug/L	507.89 ppb	20:25:39
3	Be 313.107†	1163255.1	1161760.0	502.50 ug/L	502.50 ppb	20:25:34
3	Cd 226.502†	35172.8	35160.0	508.14 ug/L	508.14 ppb	20:25:39
3	Co 228.616†	19966.8	19922.7	516.75 ug/L	516.75 ppb	20:25:39
3	Cr 267.716†	39190.1	38952.3	508.81 ug/L	508.81 ppb	20:25:39
3	Cu 324.752†	164139.3	157348.2	506.37 ug/L	506.37 ppb	20:25:39
3	Mn 257.610†	382275.7	380207.5	498.52 ug/L	498.52 ppb	20:25:39
3	Mo 202.031†	5838.6	5799.2	501.02 ug/L	501.02 ppb	20:25:59
3	Ni 231.604†	16483.5	16358.1	515.28 ug/L	515.28 ppb	20:25:39
3	P 214.914†	3516.1	3325.3	2426.9 ug/L	2426.9 ppb	20:25:59
3	Pb 220.353†	3240.4	3270.1	507.79 ug/L	507.79 ppb	20:25:59
3	S 181.975 Axial†	596.5	563.0	1003.2 ug/L	1003.2 ppb	20:25:59
3	Sb 206.836†	1256.0	1222.0	524.50 ug/L	524.50 ppb	20:25:59
3	Se 196.026†	611.6	628.2	528.49 ug/L	528.49 ppb	20:25:59
3	Si 251.611†	69421.1	68663.9	2539.8 ug/L	2539.8 ppb	20:25:39
3	Sn 189.927†	2249.6	2231.9	507.78 ug/L	507.78 ppb	20:25:59
3	Ti 334.940†	292440.2	292116.4	496.32 ug/L	496.32 ppb	20:25:39
3	Tl 190.801†	1288.7	1314.1	513.02 ug/L	513.02 ppb	20:25:59
3	U 409.014†	15673.8	17608.2	512.47 ug/L	512.47 ppb	20:25:39
3	V 292.402†	63933.5	64899.5	513.31 ug/L	513.31 ppb	20:25:39
3	Zn 213.857†	42763.8	42073.6	505.75 ug/L	505.75 ppb	20:25:39
3	SiO2†	69128.2	68346.2	5355.2 ug/L	5355.2 ppb	20:26:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	840861.3	100.73	%	0.423				0.42%
Sc Radial	3279.9	97.9	%	0.23				0.24%
Y 371.029	710682.4	99.304	%	0.3289				0.33%
Y RADIAL	2670.9	97.36	%	0.291				0.30%
Ag 328.068†	99767.6	507.22	ug/L	3.929	507.22	ppb	3.929	0.77%
QC value within limits for Ag 328.068 Recovery = 101.44%								
Al 396.153Radial†	2391.9	5116.2	ug/L	58.93	5116.2	ppb	58.93	1.15%
QC value within limits for Al 396.153Radial Recovery = 102.32%								
As 188.979†	900.9	505.12	ug/L	3.958	505.12	ppb	3.958	0.78%
QC value within limits for As 188.979 Recovery = 101.02%								
B 249.677†	17604.2	491.17	ug/L	6.067	491.17	ppb	6.067	1.24%
QC value within limits for B 249.677 Recovery = 98.23%								
Ba 233.527†	54031.7	505.89	ug/L	2.988	505.89	ppb	2.988	0.59%
QC value within limits for Ba 233.527 Recovery = 101.18%								
Be 313.107†	1164402.6	503.64	ug/L	1.612	503.64	ppb	1.612	0.32%
QC value within limits for Be 313.107 Recovery = 100.73%								
Ca 317.933Radial†	1296.4	5145.0	ug/L	2.91	5145.0	ppb	2.91	0.06%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.90%
Cd 226.502†            35041.4      506.42 ug/L         2.357      506.42 ppb          2.357   0.47%
   QC value within limits for Cd 226.502  Recovery = 101.28%
Co 228.616†            19876.1      515.55 ug/L         2.277      515.55 ppb          2.277   0.44%
   QC value within limits for Co 228.616  Recovery = 103.11%
Cr 267.716†            38699.1      505.50 ug/L         3.787      505.50 ppb          3.787   0.75%
   QC value within limits for Cr 267.716  Recovery = 101.10%
Cu 324.752†           155735.6      501.18 ug/L         4.816      501.18 ppb          4.816   0.96%
   QC value within limits for Cu 324.752  Recovery = 100.24%
Fe 238.204 Radial†       187.9      5238.0 ug/L        15.54      5238.0 ppb          15.54   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.76%
K 766.490 Radial†      10989.3      5023.9 ug/L         5.14      5023.9 ppb           5.14   0.10%
   QC value within limits for K 766.490 Radial  Recovery = 100.48%
Mg 279.077 IEC†           55.4      5374.3 ug/L       125.07      5374.3 ppb         125.07   2.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.49%
Mn 257.610†           378207.6      495.91 ug/L         3.050      495.91 ppb          3.050   0.61%
   QC value within limits for Mn 257.610  Recovery = 99.18%
Mo 202.031†             5807.0      501.69 ug/L         3.440      501.69 ppb          3.440   0.69%
   QC value within limits for Mo 202.031  Recovery = 100.34%
Na 589.592 Radial†     31761.5       10607 ug/L         197.5       10607 ppb          197.5   1.86%
   QC value within limits for Na 589.592 Radial  Recovery = 106.07%
Ni 231.604†            16291.4      513.18 ug/L         3.182      513.18 ppb          3.182   0.62%
   QC value within limits for Ni 231.604  Recovery = 102.64%
P 214.914†              3321.0      2424.6 ug/L        13.74      2424.6 ppb          13.74   0.57%
   QC value within limits for P 214.914  Recovery = 96.98%
Pb 220.353†             3272.1      508.09 ug/L         2.054      508.09 ppb          2.054   0.40%
   QC value within limits for Pb 220.353  Recovery = 101.62%
S 181.975 Axial†         565.2      1007.1 ug/L         9.61      1007.1 ppb           9.61   0.95%
   QC value within limits for S 181.975 Axial  Recovery = 100.71%
Sb 206.836†             1225.7      526.00 ug/L         1.803      526.00 ppb          1.803   0.34%
   QC value within limits for Sb 206.836  Recovery = 105.20%
Se 196.026†              624.3      525.34 ug/L         6.999      525.34 ppb          6.999   1.33%
   QC value within limits for Se 196.026  Recovery = 105.07%
Si 251.611†            68233.0      2523.8 ug/L        15.94      2523.8 ppb          15.94   0.63%
   QC value within limits for Si 251.611  Recovery = 100.95%
Sn 189.927†             2227.3      506.73 ug/L         2.424      506.73 ppb          2.424   0.48%
   QC value within limits for Sn 189.927  Recovery = 101.35%
Sr 421.552†            54271.0      538.12 ug/L         7.774      538.12 ppb          7.774   1.44%
   QC value within limits for Sr 421.552  Recovery = 107.62%
Ti 334.940†           290238.0      493.14 ug/L         3.353      493.14 ppb          3.353   0.68%
   QC value within limits for Ti 334.940  Recovery = 98.63%
Tl 190.801†             1308.6      510.86 ug/L         3.571      510.86 ppb          3.571   0.70%
   QC value within limits for Tl 190.801  Recovery = 102.17%
U 409.014†             17558.1      511.01 ug/L         3.857      511.01 ppb          3.857   0.75%
   QC value within limits for U 409.014  Recovery = 102.20%
V 292.402†             64452.7      509.83 ug/L         3.798      509.83 ppb          3.798   0.74%
   QC value within limits for V 292.402  Recovery = 101.97%
Zn 213.857†            41788.6      502.31 ug/L         3.564      502.31 ppb          3.564   0.71%
   QC value within limits for Zn 213.857  Recovery = 100.46%
SiO2†                  67898.6      5320.0 ug/L        51.64      5320.0 ppb          51.64   0.97%
   QC value within limits for SiO2  Recovery = 99.49%
All analyte(s) passed QC.
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Sequence No.: 24
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/9/2010 20:28:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3255.3	3255.3	97.2	%			20:30:36
1	Y RADIAL	2686.0	2686.0	97.91	%			20:30:36
1	Al 396.153Radial†	-68.4	-10.3	-22.167	ug/L	-22.167	ppb	20:30:36
1	Ca 317.933Radial†	9.2	-0.8	-3.0469	ug/L	-3.0469	ppb	20:30:36
1	Fe 238.204 Radial†	10.1	1.8	49.066	ug/L	49.066	ppb	20:30:36
1	K 766.490 Radial†	2034.7	-20.3	-9.2911	ug/L	-9.2911	ppb	20:30:16
1	Mg 279.077 IEC†	-0.4	-0.8	-81.237	ug/L	-81.237	ppb	20:30:36
1	Na 589.592 Radial†	-781.9	-22.2	-7.3987	ug/L	-7.3987	ppb	20:30:16
1	Sr 421.552†	58.4	24.4	0.2421	ug/L	0.2421	ppb	20:30:16
1	Sc 361.383	821050.3	821050.3	98.359	%			20:31:33
1	Y 371.029	704157.6	704157.6	98.392	%			20:31:33
1	Ag 328.068†	220.7	65.3	0.3468	ug/L	0.3468	ppb	20:31:33
1	As 188.979†	-10.5	5.2	2.9268	ug/L	2.9268	ppb	20:31:53
1	B 249.677†	-263.9	-178.1	-5.0018	ug/L	-5.0018	ppb	20:31:53
1	Ba 233.527†	-0.4	6.8	0.0647	ug/L	0.0647	ppb	20:31:53
1	Be 313.107†	-3497.3	56.9	0.0246	ug/L	0.0246	ppb	20:31:33
1	Cd 226.502†	-159.9	-21.0	-0.3079	ug/L	-0.3079	ppb	20:31:53
1	Co 228.616†	-41.3	1.6	0.0394	ug/L	0.0394	ppb	20:31:53
1	Cr 267.716†	53.9	-11.0	-0.1405	ug/L	-0.1405	ppb	20:31:53
1	Cu 324.752†	6132.1	163.9	0.5311	ug/L	0.5311	ppb	20:31:33
1	Mn 257.610†	380.7	-2.6	0.0047	ug/L	0.0047	ppb	20:31:53
1	Mo 202.031†	10.0	-3.6	-0.3048	ug/L	-0.3048	ppb	20:31:53
1	Ni 231.604†	104.4	53.1	1.6740	ug/L	1.6740	ppb	20:31:53
1	P 214.914†	176.8	4.3	3.1271	ug/L	3.1271	ppb	20:31:53
1	Pb 220.353†	-46.3	-3.2	-0.5037	ug/L	-0.5037	ppb	20:31:53
1	S 181.975 Axial†	30.7	0.3	0.6212	ug/L	0.6212	ppb	20:31:53
1	Sb 206.836†	30.4	2.4	0.9968	ug/L	0.9968	ppb	20:31:53
1	Se 196.026†	-14.6	4.4	3.6982	ug/L	3.6982	ppb	20:31:53
1	Si 251.611†	496.7	52.6	1.9533	ug/L	1.9533	ppb	20:31:53
1	Sn 189.927†	9.2	1.5	0.3430	ug/L	0.3430	ppb	20:31:53
1	Ti 334.940†	-938.7	5.9	0.0170	ug/L	0.0170	ppb	20:31:33
1	Tl 190.801†	-19.7	11.1	4.2989	ug/L	4.2989	ppb	20:31:53
1	U 409.014†	-2029.7	-60.4	-1.7681	ug/L	-1.7681	ppb	20:31:33
1	V 292.402†	-1221.2	5.2	0.0241	ug/L	0.0241	ppb	20:31:33
1	Zn 213.857†	564.4	71.3	0.8466	ug/L	0.8466	ppb	20:31:53
1	SiO2†	492.4	22.1	1.7458	ug/L	1.7458	ppb	20:33:04
2	Sc Radial	3258.3	3258.3	97.2	%			20:31:01
2	Y RADIAL	2681.8	2681.8	97.76	%			20:31:01
2	Al 396.153Radial†	-67.1	-9.0	-19.235	ug/L	-19.235	ppb	20:31:01
2	Ca 317.933Radial†	11.8	1.9	7.5927	ug/L	7.5927	ppb	20:31:01
2	Fe 238.204 Radial†	10.9	2.6	72.249	ug/L	72.249	ppb	20:31:01
2	K 766.490 Radial†	2101.8	46.8	21.441	ug/L	21.441	ppb	20:30:41
2	Mg 279.077 IEC†	2.5	2.1	204.66	ug/L	204.66	ppb	20:31:01
2	Na 589.592 Radial†	-803.2	-43.3	-14.452	ug/L	-14.452	ppb	20:30:41
2	Sr 421.552†	-6.2	-42.0	-0.4168	ug/L	-0.4168	ppb	20:30:41
2	Sc 361.383	824748.5	824748.5	98.802	%			20:31:58
2	Y 371.029	706061.0	706061.0	98.658	%			20:31:58
2	Ag 328.068†	187.6	30.8	0.1796	ug/L	0.1796	ppb	20:31:58
2	As 188.979†	-22.0	-6.3	-3.4790	ug/L	-3.4790	ppb	20:32:18
2	B 249.677†	-236.2	-148.9	-4.1843	ug/L	-4.1843	ppb	20:32:18
2	Ba 233.527†	18.7	26.1	0.2470	ug/L	0.2470	ppb	20:32:18
2	Be 313.107†	-3592.1	-23.1	-0.0103	ug/L	-0.0103	ppb	20:31:58
2	Cd 226.502†	-164.5	-24.9	-0.3672	ug/L	-0.3672	ppb	20:32:18
2	Co 228.616†	-55.7	-12.8	-0.3344	ug/L	-0.3344	ppb	20:32:18
2	Cr 267.716†	63.1	-1.9	-0.0208	ug/L	-0.0208	ppb	20:32:18
2	Cu 324.752†	6088.2	91.5	0.2987	ug/L	0.2987	ppb	20:31:58
2	Mn 257.610†	375.8	-9.4	-0.0135	ug/L	-0.0135	ppb	20:32:18
2	Mo 202.031†	8.8	-4.8	-0.4124	ug/L	-0.4124	ppb	20:32:18
2	Ni 231.604†	96.6	44.7	1.4100	ug/L	1.4100	ppb	20:32:18

2	P 214.914†	172.5	-0.8	-0.6994 ug/L	-0.6994 ppb	20:32:18
2	Pb 220.353†	-45.4	-2.0	-0.3246 ug/L	-0.3246 ppb	20:32:18
2	S 181.975 Axial†	33.2	2.8	4.9269 ug/L	4.9269 ppb	20:32:18
2	Sb 206.836†	24.9	-3.3	-1.3658 ug/L	-1.3658 ppb	20:32:18
2	Se 196.026†	-16.2	2.8	2.4615 ug/L	2.4615 ppb	20:32:18
2	Si 251.611†	491.1	44.7	1.6619 ug/L	1.6619 ppb	20:32:18
2	Sn 189.927†	5.7	-2.1	-0.4724 ug/L	-0.4724 ppb	20:32:18
2	Ti 334.940†	-1034.6	-86.9	-0.1631 ug/L	-0.1631 ppb	20:31:58
2	Tl 190.801†	-20.8	10.0	3.8847 ug/L	3.8847 ppb	20:32:18
2	U 409.014†	-2003.8	-25.0	-0.7371 ug/L	-0.7371 ppb	20:31:58
2	V 292.402†	-1189.9	42.4	0.3172 ug/L	0.3172 ppb	20:31:58
2	Zn 213.857†	567.8	72.2	0.8556 ug/L	0.8556 ppb	20:32:18
2	SiO2†	502.8	30.4	2.3981 ug/L	2.3981 ppb	20:33:24
3	Sc Radial	3303.8	3303.8	98.6 %		20:31:26
3	Y RADIAL	2716.8	2716.8	99.03 %		20:31:26
3	Al 396.153Radial†	-69.3	-10.3	-22.162 ug/L	-22.162 ppb	20:31:26
3	Ca 317.933Radial†	11.6	1.5	6.0581 ug/L	6.0581 ppb	20:31:26
3	Fe 238.204 Radial†	8.9	0.4	11.321 ug/L	11.321 ppb	20:31:26
3	K 766.490 Radial†	2104.5	19.8	9.0778 ug/L	9.0778 ppb	20:31:06
3	Mg 279.077 IEC†	-0.3	-0.7	-72.720 ug/L	-72.720 ppb	20:31:26
3	Na 589.592 Radial†	-850.4	-79.8	-26.636 ug/L	-26.636 ppb	20:31:06
3	Sr 421.552†	23.0	-12.3	-0.1221 ug/L	-0.1221 ppb	20:31:06
3	Sc 361.383	830950.3	830950.3	99.545 %		20:32:23
3	Y 371.029	711629.2	711629.2	99.436 %		20:32:23
3	Ag 328.068†	135.5	-23.0	-0.1130 ug/L	-0.1130 ppb	20:32:23
3	As 188.979†	-23.4	-7.5	-4.1835 ug/L	-4.1835 ppb	20:32:43
3	B 249.677†	-282.4	-193.5	-5.4262 ug/L	-5.4262 ppb	20:32:43
3	Ba 233.527†	-9.5	-2.4	-0.0221 ug/L	-0.0221 ppb	20:32:43
3	Be 313.107†	-3536.7	59.6	0.0252 ug/L	0.0252 ppb	20:32:23
3	Cd 226.502†	-151.1	-10.2	-0.1482 ug/L	-0.1482 ppb	20:32:43
3	Co 228.616†	-38.2	5.1	0.1348 ug/L	0.1348 ppb	20:32:43
3	Cr 267.716†	59.9	-5.6	-0.0725 ug/L	-0.0725 ppb	20:32:43
3	Cu 324.752†	6152.5	110.1	0.3553 ug/L	0.3553 ppb	20:32:23
3	Mn 257.610†	388.0	0.0	0.0042 ug/L	0.0042 ppb	20:32:43
3	Mo 202.031†	18.7	5.0	0.4311 ug/L	0.4311 ppb	20:32:43
3	Ni 231.604†	109.4	56.9	1.7922 ug/L	1.7922 ppb	20:32:43
3	P 214.914†	178.2	3.6	2.6638 ug/L	2.6638 ppb	20:32:43
3	Pb 220.353†	-40.2	3.5	0.5434 ug/L	0.5434 ppb	20:32:43
3	S 181.975 Axial†	31.9	1.2	2.1380 ug/L	2.1380 ppb	20:32:43
3	Sb 206.836†	39.8	11.5	4.7909 ug/L	4.7909 ppb	20:32:43
3	Se 196.026†	-18.0	1.1	0.9349 ug/L	0.9349 ppb	20:32:43
3	Si 251.611†	496.5	46.4	1.7141 ug/L	1.7141 ppb	20:32:43
3	Sn 189.927†	13.4	5.7	1.2866 ug/L	1.2866 ppb	20:32:43
3	Ti 334.940†	-1085.9	-130.6	-0.2150 ug/L	-0.2150 ppb	20:32:23
3	Tl 190.801†	-25.6	5.3	2.0721 ug/L	2.0721 ppb	20:32:43
3	U 409.014†	-2013.1	-19.1	-0.5590 ug/L	-0.5590 ppb	20:32:23
3	V 292.402†	-1261.0	-20.0	-0.1538 ug/L	-0.1538 ppb	20:32:23
3	Zn 213.857†	575.6	75.8	0.9063 ug/L	0.9063 ppb	20:32:43
3	SiO2†	500.3	24.1	1.8839 ug/L	1.8839 ppb	20:33:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	825583.0	98.902	%	0.5993				0.61%
Sc Radial	3272.4	97.7	%	0.81				0.83%
Y 371.029	707282.6	98.829	%	0.5425				0.55%
Y RADIAL	2694.9	98.24	%	0.695				0.71%
Ag 328.068†	24.4	0.1378	ug/L	0.23274	0.1378	ppb	0.23274	168.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.9	-21.188	ug/L	1.6915	-21.188	ppb	1.6915	7.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.9	-1.5786	ug/L	3.91764	-1.5786	ppb	3.91764	248.18%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-173.5	-4.8708	ug/L	0.63126	-4.8708	ppb	0.63126	12.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.2	0.0965	ug/L	0.13734	0.0965	ppb	0.13734	142.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	31.1	0.0132	ug/L	0.02033	0.0132	ppb	0.02033	154.48%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	3.5346	ug/L	5.75118	3.5346	ppb	5.75118	162.71%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -18.7     -0.2744 ug/L       0.11326     -0.2744 ppb        0.11326  41.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -2.0     -0.0534 ug/L       0.24797     -0.0534 ppb        0.24797 464.50%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -6.2     -0.0779 ug/L       0.06003     -0.0779 ppb        0.06003  77.02%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              121.9      0.3950 ug/L       0.12118      0.3950 ppb        0.12118  30.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.6      44.212 ug/L       30.7528      44.212 ppb        30.7528  69.56%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         15.4      7.0758 ug/L      15.46341      7.0758 ppb       15.46341 218.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.2      16.900 ug/L      162.6584      16.900 ppb       162.6584 962.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -4.0     -0.0015 ug/L       0.01037     -0.0015 ppb        0.01037 673.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.1     -0.0954 ug/L       0.45913     -0.0954 ppb        0.45913 481.49%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -48.4     -16.162 ug/L        9.7318     -16.162 ppb         9.7318  60.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               51.6      1.6254 ug/L       0.19567      1.6254 ppb        0.19567  12.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 2.4      1.6972 ug/L       2.08835      1.6972 ppb        2.08835 123.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -0.5     -0.0950 ug/L       0.56002     -0.0950 ppb        0.56002 589.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.4      2.5620 ug/L       2.18393      2.5620 ppb        2.18393  85.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.5      1.4740 ug/L       3.10598      1.4740 ppb        3.10598 210.72%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.8      2.3649 ug/L       1.38422      2.3649 ppb        1.38422  58.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               47.9      1.7765 ug/L       0.15541      1.7765 ppb        0.15541   8.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.7      0.3857 ug/L       0.88030      0.3857 ppb        0.88030 228.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -10.0     -0.0990 ug/L       0.33006     -0.0990 ppb        0.33006 333.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -70.5     -0.1203 ug/L       0.12177     -0.1203 ppb        0.12177 101.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.8      3.4186 ug/L       1.18431      3.4186 ppb        1.18431  34.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -34.8     -1.0214 ug/L       0.65279     -1.0214 ppb        0.65279  63.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 9.2      0.0625 ug/L       0.23784      0.0625 ppb        0.23784 380.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               73.1      0.8695 ug/L       0.03217      0.8695 ppb        0.03217   3.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     25.5      2.0092 ug/L       0.34374      2.0092 ppb        0.34374  17.11%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 32
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/9/2010 21:24:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3306.9	3306.9	98.7	%			21:26:18
1	Y RADIAL	2686.8	2686.8	97.94	%			21:26:18
1	Al 396.153Radial†	2175.0	2263.6	4841.0	ug/L	4841.0	ppb	21:25:58
1	Ca 317.933Radial†	1258.0	1264.3	5017.6	ug/L	5017.6	ppb	21:26:18
1	Fe 238.204 Radial†	185.1	178.9	4986.7	ug/L	4986.7	ppb	21:26:18
1	K 766.490 Radial†	12747.8	10801.1	4938.2	ug/L	4938.2	ppb	21:25:58
1	Mg 279.077 IEC†	52.3	52.6	5101.9	ug/L	5101.9	ppb	21:26:18
1	Na 589.592 Radial†	27778.2	28926.3	9660.1	ug/L	9660.1	ppb	21:25:58
1	Sr 421.552†	49672.4	50290.3	498.64	ug/L	498.64	ppb	21:25:58
1	Sc 361.383	844679.6	844679.6	101.19	%			21:27:15
1	Y 371.029	713869.5	713869.5	99.749	%			21:27:15
1	Ag 328.068†	100227.2	98889.3	502.68	ug/L	502.68	ppb	21:27:21
1	As 188.979†	874.7	880.4	493.64	ug/L	493.64	ppb	21:27:41
1	B 249.677†	17483.6	17368.2	484.61	ug/L	484.61	ppb	21:27:21
1	Ba 233.527†	53888.2	53261.6	498.68	ug/L	498.68	ppb	21:27:21
1	Be 313.107†	1151942.1	1142006.1	493.96	ug/L	493.96	ppb	21:27:15
1	Cd 226.502†	34579.2	34314.1	495.93	ug/L	495.93	ppb	21:27:21
1	Co 228.616†	19805.2	19615.9	508.79	ug/L	508.79	ppb	21:27:21
1	Cr 267.716†	38538.6	38019.6	496.62	ug/L	496.62	ppb	21:27:21
1	Cu 324.752†	162971.8	154984.5	498.75	ug/L	498.75	ppb	21:27:21
1	Mn 257.610†	381875.9	376994.8	494.30	ug/L	494.30	ppb	21:27:15
1	Mo 202.031†	5778.5	5696.7	492.15	ug/L	492.15	ppb	21:27:41
1	Ni 231.604†	16262.5	16018.2	504.57	ug/L	504.57	ppb	21:27:21
1	P 214.914†	3443.3	3227.4	2354.1	ug/L	2354.1	ppb	21:27:41
1	Pb 220.353†	3175.7	3182.3	494.13	ug/L	494.13	ppb	21:27:41
1	S 181.975 Axial†	590.7	552.8	985.16	ug/L	985.16	ppb	21:27:41
1	Sb 206.836†	1238.3	1195.2	513.04	ug/L	513.04	ppb	21:27:41
1	Se 196.026†	594.9	607.1	510.55	ug/L	510.55	ppb	21:27:41
1	Si 251.611†	68677.6	67417.4	2493.7	ug/L	2493.7	ppb	21:27:21
1	Sn 189.927†	2216.6	2182.7	496.58	ug/L	496.58	ppb	21:27:41
1	Ti 334.940†	290281.8	287827.9	489.05	ug/L	489.05	ppb	21:27:21
1	Tl 190.801†	1255.7	1272.0	496.66	ug/L	496.66	ppb	21:27:41
1	U 409.014†	15670.6	17489.5	509.06	ug/L	509.06	ppb	21:27:21
1	V 292.402†	63112.6	63617.0	503.21	ug/L	503.21	ppb	21:27:21
1	Zn 213.857†	42124.5	41126.5	494.37	ug/L	494.37	ppb	21:27:21
1	SiO2†	68557.4	67272.5	5271.1	ug/L	5271.1	ppb	21:28:48
2	Sc Radial	3388.5	3388.5	101	%			21:26:43
2	Y RADIAL	2750.4	2750.4	100.3	%			21:26:43
2	Al 396.153Radial†	2206.7	2241.9	4794.4	ug/L	4794.4	ppb	21:26:23
2	Ca 317.933Radial†	1286.3	1261.6	5006.8	ug/L	5006.8	ppb	21:26:43
2	Fe 238.204 Radial†	190.4	179.6	5007.4	ug/L	5007.4	ppb	21:26:43
2	K 766.490 Radial†	12830.8	10572.0	4833.4	ug/L	4833.4	ppb	21:26:23
2	Mg 279.077 IEC†	51.7	50.6	4915.3	ug/L	4915.3	ppb	21:26:43
2	Na 589.592 Radial†	27655.3	28126.7	9393.1	ug/L	9393.1	ppb	21:26:23
2	Sr 421.552†	49878.7	49281.9	488.64	ug/L	488.64	ppb	21:26:23
2	Sc 361.383	846520.9	846520.9	101.41	%			21:27:46
2	Y 371.029	715020.9	715020.9	99.910	%			21:27:46
2	Ag 328.068†	100621.9	99063.1	503.57	ug/L	503.57	ppb	21:27:52
2	As 188.979†	877.2	881.0	493.96	ug/L	493.96	ppb	21:28:12
2	B 249.677†	17531.0	17377.3	484.87	ug/L	484.87	ppb	21:27:52
2	Ba 233.527†	54124.6	53378.9	499.77	ug/L	499.77	ppb	21:27:52
2	Be 313.107†	1152339.6	1139921.9	493.06	ug/L	493.06	ppb	21:27:46
2	Cd 226.502†	34633.5	34293.2	495.63	ug/L	495.63	ppb	21:27:52
2	Co 228.616†	19744.4	19513.3	506.13	ug/L	506.13	ppb	21:27:52
2	Cr 267.716†	38627.0	38023.9	496.67	ug/L	496.67	ppb	21:27:52
2	Cu 324.752†	163279.5	154937.7	498.60	ug/L	498.60	ppb	21:27:52
2	Mn 257.610†	382044.2	376339.9	493.45	ug/L	493.45	ppb	21:27:46
2	Mo 202.031†	5795.1	5700.7	492.50	ug/L	492.50	ppb	21:28:12
2	Ni 231.604†	16287.5	16007.9	504.25	ug/L	504.25	ppb	21:27:52

2	P 214.914†	3446.7	3223.4	2351.0 ug/L	2351.0 ppb	21:28:12
2	Pb 220.353†	3190.4	3190.0	495.32 ug/L	495.32 ppb	21:28:12
2	S 181.975 Axial†	589.5	550.4	980.84 ug/L	980.84 ppb	21:28:12
2	Sb 206.836†	1252.3	1206.4	517.66 ug/L	517.66 ppb	21:28:12
2	Se 196.026†	597.7	608.6	511.79 ug/L	511.79 ppb	21:28:12
2	Si 251.611†	68781.0	67371.7	2492.0 ug/L	2492.0 ppb	21:27:52
2	Sn 189.927†	2221.7	2183.0	496.64 ug/L	496.64 ppb	21:28:12
2	Ti 334.940†	290869.9	287783.8	488.99 ug/L	488.99 ppb	21:27:52
2	Tl 190.801†	1273.2	1286.6	502.32 ug/L	502.32 ppb	21:28:12
2	U 409.014†	15879.6	17661.9	514.09 ug/L	514.09 ppb	21:27:52
2	V 292.402†	63271.7	63638.3	503.38 ug/L	503.38 ppb	21:27:52
2	Zn 213.857†	42232.2	41142.3	494.56 ug/L	494.56 ppb	21:27:52
2	SiO2†	69007.9	67569.4	5294.4 ug/L	5294.4 ppb	21:28:53
3	Sc Radial	3332.8	3332.8	99.5 %		21:27:08
3	Y RADIAL	2708.2	2708.2	98.72 %		21:27:08
3	Al 396.153Radial†	2219.8	2291.6	4901.3 ug/L	4901.3 ppb	21:26:48
3	Ca 317.933Radial†	1266.2	1262.7	5011.0 ug/L	5011.0 ppb	21:27:08
3	Fe 238.204 Radial†	187.5	179.9	5014.5 ug/L	5014.5 ppb	21:27:08
3	K 766.490 Radial†	12857.1	10810.6	4942.6 ug/L	4942.6 ppb	21:26:48
3	Mg 279.077 IEC†	55.1	55.0	5334.4 ug/L	5334.4 ppb	21:27:08
3	Na 589.592 Radial†	27806.5	28735.9	9596.5 ug/L	9596.5 ppb	21:26:48
3	Sr 421.552†	50068.9	50297.6	498.72 ug/L	498.72 ppb	21:26:48
3	Sc 361.383	858935.4	858935.4	102.90 %		21:28:17
3	Y 371.029	726065.6	726065.6	101.45 %		21:28:17
3	Ag 328.068†	100204.4	97223.3	494.24 ug/L	494.24 ppb	21:28:23
3	As 188.979†	888.0	878.9	492.75 ug/L	492.75 ppb	21:28:43
3	B 249.677†	17421.8	17021.4	474.91 ug/L	474.91 ppb	21:28:23
3	Ba 233.527†	53815.1	52306.6	489.74 ug/L	489.74 ppb	21:28:23
3	Be 313.107†	1172704.3	1143289.6	494.50 ug/L	494.50 ppb	21:28:17
3	Cd 226.502†	34572.6	33740.5	487.63 ug/L	487.63 ppb	21:28:23
3	Co 228.616†	19711.9	19200.3	498.02 ug/L	498.02 ppb	21:28:23
3	Cr 267.716†	38581.8	37429.5	488.91 ug/L	488.91 ppb	21:28:23
3	Cu 324.752†	162505.5	151858.4	488.69 ug/L	488.69 ppb	21:28:23
3	Mn 257.610†	387378.7	376079.2	493.10 ug/L	493.10 ppb	21:28:17
3	Mo 202.031†	5829.7	5651.8	488.27 ug/L	488.27 ppb	21:28:43
3	Ni 231.604†	16219.4	15709.5	494.85 ug/L	494.85 ppb	21:28:23
3	P 214.914†	3495.0	3221.1	2351.3 ug/L	2351.3 ppb	21:28:43
3	Pb 220.353†	3220.8	3174.0	492.86 ug/L	492.86 ppb	21:28:43
3	S 181.975 Axial†	592.8	545.2	971.57 ug/L	971.57 ppb	21:28:43
3	Sb 206.836†	1259.5	1195.5	513.03 ug/L	513.03 ppb	21:28:43
3	Se 196.026†	601.4	603.7	507.86 ug/L	507.86 ppb	21:28:43
3	Si 251.611†	68596.0	66211.7	2449.0 ug/L	2449.0 ppb	21:28:23
3	Sn 189.927†	2240.6	2169.7	493.62 ug/L	493.62 ppb	21:28:43
3	Ti 334.940†	289603.9	282408.0	479.82 ug/L	479.82 ppb	21:28:23
3	Tl 190.801†	1264.8	1260.2	492.06 ug/L	492.06 ppb	21:28:43
3	U 409.014†	15870.1	17426.3	507.23 ug/L	507.23 ppb	21:28:23
3	V 292.402†	63090.5	62560.4	494.91 ug/L	494.91 ppb	21:28:23
3	Zn 213.857†	42128.7	40439.8	486.11 ug/L	486.11 ppb	21:28:23
3	SiO2†	68234.3	65834.2	5158.2 ug/L	5158.2 ppb	21:28:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	850045.3	101.83	%	0.929				0.91%
Sc Radial	3342.7	99.8	%	1.25				1.25%
Y 371.029	718318.7	100.37	%	0.941				0.94%
Y RADIAL	2715.1	98.98	%	1.180				1.19%
Ag 328.068†	98391.9	500.16	ug/L	5.146	500.16	ppb	5.146	1.03%
QC value within limits for Ag 328.068 Recovery = 100.03%								
Al 396.153Radial†	2265.7	4845.6	ug/L	53.59	4845.6	ppb	53.59	1.11%
QC value within limits for Al 396.153Radial Recovery = 96.91%								
As 188.979†	880.1	493.45	ug/L	0.625	493.45	ppb	0.625	0.13%
QC value within limits for As 188.979 Recovery = 98.69%								
B 249.677†	17255.6	481.47	ug/L	5.675	481.47	ppb	5.675	1.18%
QC value within limits for B 249.677 Recovery = 96.29%								
Ba 233.527†	52982.4	496.06	ug/L	5.503	496.06	ppb	5.503	1.11%
QC value within limits for Ba 233.527 Recovery = 99.21%								
Be 313.107†	1141739.2	493.84	ug/L	0.724	493.84	ppb	0.724	0.15%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	1262.9	5011.8	ug/L	5.45	5011.8	ppb	5.45	0.11%

```
   QC value within limits for Ca 317.933Radial  Recovery = 100.24%
Cd 226.502†            34115.9      493.06 ug/L         4.707      493.06 ppb          4.707   0.95%
   QC value within limits for Cd 226.502  Recovery = 98.61%
Co 228.616†            19443.1      504.31 ug/L         5.610      504.31 ppb          5.610   1.11%
   QC value within limits for Co 228.616  Recovery = 100.86%
Cr 267.716†            37824.3      494.07 ug/L         4.465      494.07 ppb          4.465   0.90%
   QC value within limits for Cr 267.716  Recovery = 98.81%
Cu 324.752†           153926.9      495.34 ug/L         5.763      495.34 ppb          5.763   1.16%
   QC value within limits for Cu 324.752  Recovery = 99.07%
Fe 238.204 Radial†       179.4      5002.9 ug/L         14.43      5002.9 ppb          14.43   0.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.06%
K 766.490 Radial†      10727.9      4904.7 ug/L         61.79      4904.7 ppb          61.79   1.26%
   QC value within limits for K 766.490 Radial  Recovery = 98.09%
Mg 279.077 IEC†           52.7      5117.2 ug/L        209.97      5117.2 ppb         209.97   4.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.34%
Mn 257.610†           376471.3      493.62 ug/L         0.620      493.62 ppb          0.620   0.13%
   QC value within limits for Mn 257.610  Recovery = 98.72%
Mo 202.031†             5683.1      490.97 ug/L         2.345      490.97 ppb          2.345   0.48%
   QC value within limits for Mo 202.031  Recovery = 98.19%
Na 589.592 Radial†     28596.3      9549.9 ug/L        139.47      9549.9 ppb         139.47   1.46%
   QC value within limits for Na 589.592 Radial  Recovery = 95.50%
Ni 231.604†            15911.9      501.22 ug/L         5.522      501.22 ppb          5.522   1.10%
   QC value within limits for Ni 231.604  Recovery = 100.24%
P 214.914†              3224.0      2352.1 ug/L          1.69      2352.1 ppb           1.69   0.07%
   QC value within limits for P 214.914  Recovery = 94.08%
Pb 220.353†             3182.1      494.10 ug/L         1.226      494.10 ppb          1.226   0.25%
   QC value within limits for Pb 220.353  Recovery = 98.82%
S 181.975 Axial†         549.5      979.19 ug/L         6.941      979.19 ppb          6.941   0.71%
   QC value within limits for S 181.975 Axial  Recovery = 97.92%
Sb 206.836†             1199.0      514.58 ug/L         2.672      514.58 ppb          2.672   0.52%
   QC value within limits for Sb 206.836  Recovery = 102.92%
Se 196.026†              606.5      510.07 ug/L         2.007      510.07 ppb          2.007   0.39%
   QC value within limits for Se 196.026  Recovery = 102.01%
Si 251.611†            67000.3      2478.2 ug/L         25.31      2478.2 ppb          25.31   1.02%
   QC value within limits for Si 251.611  Recovery = 99.13%
Sn 189.927†             2178.4      495.61 ug/L         1.725      495.61 ppb          1.725   0.35%
   QC value within limits for Sn 189.927  Recovery = 99.12%
Sr 421.552†            49956.6      495.34 ug/L         5.794      495.34 ppb          5.794   1.17%
   QC value within limits for Sr 421.552  Recovery = 99.07%
Ti 334.940†           286006.6      485.95 ug/L         5.310      485.95 ppb          5.310   1.09%
   QC value within limits for Ti 334.940  Recovery = 97.19%
Tl 190.801†             1272.9      497.01 ug/L         5.137      497.01 ppb          5.137   1.03%
   QC value within limits for Tl 190.801  Recovery = 99.40%
U 409.014†             17525.9      510.13 ug/L         3.554      510.13 ppb          3.554   0.70%
   QC value within limits for U 409.014  Recovery = 102.03%
V 292.402†             63271.9      500.50 ug/L         4.839      500.50 ppb          4.839   0.97%
   QC value within limits for V 292.402  Recovery = 100.10%
Zn 213.857†            40902.9      491.68 ug/L         4.826      491.68 ppb          4.826   0.98%
   QC value within limits for Zn 213.857  Recovery = 98.34%
SiO2†                  66892.1      5241.3 ug/L         72.84      5241.3 ppb          72.84   1.39%
   QC value within limits for SiO2  Recovery = 98.01%
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/9/2010 21:31:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3327.6	3327.6	99.3	%			21:33:20
1	Y RADIAL	2709.9	2709.9	98.78	%			21:33:20
1	Al 396.153Radial†	-64.2	-4.6	-9.8612	ug/L	-9.8612	ppb	21:33:20
1	Ca 317.933Radial†	8.4	-1.7	-6.8971	ug/L	-6.8971	ppb	21:33:20
1	Fe 238.204 Radial†	8.5	-0.0	-1.1791	ug/L	-1.1791	ppb	21:33:20
1	K 766.490 Radial†	2193.7	94.3	43.167	ug/L	43.167	ppb	21:33:00
1	Mg 279.077 IEC†	0.8	0.4	35.259	ug/L	35.259	ppb	21:33:20
1	Na 589.592 Radial†	-779.2	-2.0	-0.6549	ug/L	-0.6549	ppb	21:33:00
1	Sr 421.552†	30.9	-4.5	-0.0450	ug/L	-0.0450	ppb	21:33:00
1	Sc 361.383	838021.8	838021.8	100.39	%			21:34:17
1	Y 371.029	716696.8	716696.8	100.14	%			21:34:17
1	Ag 328.068†	84.5	-74.9	-0.3816	ug/L	-0.3816	ppb	21:34:17
1	As 188.979†	-19.2	-3.2	-1.7609	ug/L	-1.7609	ppb	21:34:37
1	B 249.677†	-237.4	-146.2	-4.0992	ug/L	-4.0992	ppb	21:34:37
1	Ba 233.527†	-14.1	-6.9	-0.0641	ug/L	-0.0641	ppb	21:34:37
1	Be 313.107†	-3596.4	30.2	0.0129	ug/L	0.0129	ppb	21:34:17
1	Cd 226.502†	-155.9	-13.7	-0.1961	ug/L	-0.1961	ppb	21:34:37
1	Co 228.616†	-37.2	6.5	0.1695	ug/L	0.1695	ppb	21:34:37
1	Cr 267.716†	50.5	-15.4	-0.2028	ug/L	-0.2028	ppb	21:34:37
1	Cu 324.752†	6033.6	-60.5	-0.1972	ug/L	-0.1972	ppb	21:34:17
1	Mn 257.610†	378.0	-13.1	-0.0188	ug/L	-0.0188	ppb	21:34:37
1	Mo 202.031†	14.7	0.8	0.0729	ug/L	0.0729	ppb	21:34:37
1	Ni 231.604†	107.8	54.4	1.7132	ug/L	1.7132	ppb	21:34:37
1	P 214.914†	161.9	-14.1	-10.697	ug/L	-10.697	ppb	21:34:37
1	Pb 220.353†	-48.4	-4.3	-0.6633	ug/L	-0.6633	ppb	21:34:37
1	S 181.975 Axial†	29.6	-1.3	-2.3934	ug/L	-2.3934	ppb	21:34:37
1	Sb 206.836†	26.5	-2.1	-0.8776	ug/L	-0.8776	ppb	21:34:37
1	Se 196.026†	-18.0	1.3	1.0570	ug/L	1.0570	ppb	21:34:37
1	Si 251.611†	483.3	29.0	1.0754	ug/L	1.0754	ppb	21:34:37
1	Sn 189.927†	5.3	-2.5	-0.5713	ug/L	-0.5713	ppb	21:34:37
1	Ti 334.940†	-995.7	-31.6	-0.0594	ug/L	-0.0594	ppb	21:34:17
1	Tl 190.801†	-35.1	-3.9	-1.5097	ug/L	-1.5097	ppb	21:34:37
1	U 409.014†	-1851.7	158.7	4.6347	ug/L	4.6347	ppb	21:34:17
1	V 292.402†	-1224.4	27.2	0.2231	ug/L	0.2231	ppb	21:34:17
1	Zn 213.857†	564.2	59.5	0.7115	ug/L	0.7115	ppb	21:34:37
1	SiO2†	491.1	10.7	0.8419	ug/L	0.8419	ppb	21:35:48
2	Sc Radial	3297.3	3297.3	98.4	%			21:33:45
2	Y RADIAL	2691.4	2691.4	98.11	%			21:33:45
2	Al 396.153Radial†	-61.8	-2.8	-5.9225	ug/L	-5.9225	ppb	21:33:45
2	Ca 317.933Radial†	12.9	2.8	11.303	ug/L	11.303	ppb	21:33:45
2	Fe 238.204 Radial†	7.8	-0.7	-19.770	ug/L	-19.770	ppb	21:33:45
2	K 766.490 Radial†	2200.6	121.6	55.658	ug/L	55.658	ppb	21:33:25
2	Mg 279.077 IEC†	1.6	1.2	114.14	ug/L	114.14	ppb	21:33:45
2	Na 589.592 Radial†	-782.0	-12.0	-4.0006	ug/L	-4.0006	ppb	21:33:25
2	Sr 421.552†	29.4	-5.8	-0.0580	ug/L	-0.0580	ppb	21:33:25
2	Sc 361.383	835382.5	835382.5	100.08	%			21:34:42
2	Y 371.029	715095.5	715095.5	99.920	%			21:34:42
2	Ag 328.068†	160.9	1.7	0.0062	ug/L	0.0062	ppb	21:34:42
2	As 188.979†	-18.6	-2.6	-1.4358	ug/L	-1.4358	ppb	21:35:02
2	B 249.677†	-263.5	-173.1	-4.8481	ug/L	-4.8481	ppb	21:35:02
2	Ba 233.527†	3.2	10.4	0.0986	ug/L	0.0986	ppb	21:35:02
2	Be 313.107†	-3567.3	48.0	0.0206	ug/L	0.0206	ppb	21:34:42
2	Cd 226.502†	-157.3	-15.6	-0.2223	ug/L	-0.2223	ppb	21:35:02
2	Co 228.616†	-41.7	1.9	0.0506	ug/L	0.0506	ppb	21:35:02
2	Cr 267.716†	72.2	6.4	0.0844	ug/L	0.0844	ppb	21:35:02
2	Cu 324.752†	5931.5	-143.5	-0.4625	ug/L	-0.4625	ppb	21:34:42
2	Mn 257.610†	355.6	-34.4	-0.0516	ug/L	-0.0516	ppb	21:35:02
2	Mo 202.031†	16.4	2.6	0.2234	ug/L	0.2234	ppb	21:35:02
2	Ni 231.604†	100.4	47.3	1.4914	ug/L	1.4914	ppb	21:35:02

2	P 214.914†	174.7	-0.8	-0.5068 ug/L	-0.5068 ppb	21:35:02
2	Pb 220.353†	-47.3	-3.3	-0.5092 ug/L	-0.5092 ppb	21:35:02
2	S 181.975 Axial†	26.2	-4.7	-8.4155 ug/L	-8.4155 ppb	21:35:02
2	Sb 206.836†	41.2	12.7	5.2691 ug/L	5.2691 ppb	21:35:02
2	Se 196.026†	-20.2	-0.9	-0.8087 ug/L	-0.8087 ppb	21:35:02
2	Si 251.611†	482.5	29.7	1.1001 ug/L	1.1001 ppb	21:35:02
2	Sn 189.927†	5.3	-2.5	-0.5762 ug/L	-0.5762 ppb	21:35:02
2	Ti 334.940†	-977.5	-16.5	-0.0357 ug/L	-0.0357 ppb	21:34:42
2	Tl 190.801†	-30.4	0.7	0.2503 ug/L	0.2503 ppb	21:35:02
2	U 409.014†	-2022.4	-17.7	-0.5155 ug/L	-0.5155 ppb	21:34:42
2	V 292.402†	-1138.2	109.5	0.8618 ug/L	0.8618 ppb	21:34:42
2	Zn 213.857†	554.8	51.9	0.6242 ug/L	0.6242 ppb	21:35:02
2	SiO2†	515.6	36.7	2.8774 ug/L	2.8774 ppb	21:36:08
3	Sc Radial	3285.1	3285.1	98.1 %		21:34:10
3	Y RADIAL	2687.0	2687.0	97.95 %		21:34:10
3	Al 396.153Radial†	-65.7	-7.0	-15.013 ug/L	-15.013 ppb	21:34:10
3	Ca 317.933Radial†	10.2	0.2	0.6871 ug/L	0.6871 ppb	21:34:10
3	Fe 238.204 Radial†	7.5	-0.9	-25.970 ug/L	-25.970 ppb	21:34:10
3	K 766.490 Radial†	2045.5	-28.2	-12.915 ug/L	-12.915 ppb	21:33:50
3	Mg 279.077 IEC†	2.8	2.4	233.66 ug/L	233.66 ppb	21:34:10
3	Na 589.592 Radial†	-792.7	-25.9	-8.6337 ug/L	-8.6337 ppb	21:33:50
3	Sr 421.552†	21.5	-13.7	-0.1361 ug/L	-0.1361 ppb	21:33:50
3	Sc 361.383	835503.5	835503.5	100.09 %		21:35:07
3	Y 371.029	716621.1	716621.1	100.13 %		21:35:07
3	Ag 328.068†	162.9	3.7	0.0110 ug/L	0.0110 ppb	21:35:07
3	As 188.979†	-25.0	-9.1	-5.0396 ug/L	-5.0396 ppb	21:35:28
3	B 249.677†	-247.1	-156.7	-4.3878 ug/L	-4.3878 ppb	21:35:28
3	Ba 233.527†	1.1	8.2	0.0768 ug/L	0.0768 ppb	21:35:28
3	Be 313.107†	-3573.7	42.1	0.0181 ug/L	0.0181 ppb	21:35:07
3	Cd 226.502†	-151.4	-9.7	-0.1360 ug/L	-0.1360 ppb	21:35:28
3	Co 228.616†	-44.5	-0.9	-0.0245 ug/L	-0.0245 ppb	21:35:28
3	Cr 267.716†	66.6	0.8	0.0092 ug/L	0.0092 ppb	21:35:28
3	Cu 324.752†	5984.3	-91.6	-0.2966 ug/L	-0.2966 ppb	21:35:07
3	Mn 257.610†	350.4	-39.6	-0.0640 ug/L	-0.0640 ppb	21:35:28
3	Mo 202.031†	10.4	-3.4	-0.2968 ug/L	-0.2968 ppb	21:35:28
3	Ni 231.604†	103.4	50.3	1.5854 ug/L	1.5854 ppb	21:35:28
3	P 214.914†	176.0	0.5	0.4362 ug/L	0.4362 ppb	21:35:28
3	Pb 220.353†	-43.1	0.9	0.1389 ug/L	0.1389 ppb	21:35:28
3	S 181.975 Axial†	31.0	0.1	0.1649 ug/L	0.1649 ppb	21:35:28
3	Sb 206.836†	32.2	3.7	1.5228 ug/L	1.5228 ppb	21:35:28
3	Se 196.026†	-17.3	1.9	1.4619 ug/L	1.4619 ppb	21:35:28
3	Si 251.611†	481.7	28.9	1.0750 ug/L	1.0750 ppb	21:35:28
3	Sn 189.927†	11.2	3.4	0.7767 ug/L	0.7767 ppb	21:35:28
3	Ti 334.940†	-970.8	-9.7	-0.0359 ug/L	-0.0359 ppb	21:35:07
3	Tl 190.801†	-23.9	7.2	2.8026 ug/L	2.8026 ppb	21:35:28
3	U 409.014†	-1969.5	35.4	1.0381 ug/L	1.0381 ppb	21:35:07
3	V 292.402†	-1212.4	35.4	0.2828 ug/L	0.2828 ppb	21:35:07
3	Zn 213.857†	557.4	54.4	0.6546 ug/L	0.6546 ppb	21:35:28
3	SiO2†	484.3	5.4	0.4297 ug/L	0.4297 ppb	21:36:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	836302.6	100.19	%	0.179				0.18%
Sc Radial	3303.3	98.6	%	0.65				0.66%
Y 371.029	716137.8	100.07	%	0.126				0.13%
Y RADIAL	2696.1	98.28	%	0.443				0.45%
Ag 328.068†	-23.2	-0.1215	ug/L	0.22533	-0.1215	ppb	0.22533	185.51%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.8	-10.266	ug/L	4.5588	-10.266	ppb	4.5588	44.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.9	-2.7454	ug/L	1.99341	-2.7454	ppb	1.99341	72.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-158.7	-4.4450	ug/L	0.37772	-4.4450	ppb	0.37772	8.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.9	0.0371	ug/L	0.08831	0.0371	ppb	0.08831	238.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	40.1	0.0172	ug/L	0.00394	0.0172	ppb	0.00394	22.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.4	1.6977	ug/L	9.14222	1.6977	ppb	9.14222	538.49%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -13.0     -0.1848 ug/L       0.04425     -0.1848 ppb        0.04425  23.95%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                2.5      0.0652 ug/L       0.09783      0.0652 ppb        0.09783 150.06%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -2.7     -0.0364 ug/L       0.14894     -0.0364 ppb        0.14894 409.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -98.5     -0.3188 ug/L       0.13402     -0.3188 ppb        0.13402  42.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.6     -15.640 ug/L       12.9011     -15.640 ppb        12.9011  82.49%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         62.6      28.637 ug/L       36.5228      28.637 ppb        36.5228 127.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.3      127.69 ug/L        99.894      127.69 ppb         99.894  78.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -29.0     -0.0448 ug/L       0.02338     -0.0448 ppb        0.02338  52.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.0     -0.0002 ug/L       0.26767     -0.0002 ppb        0.26767 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -13.3     -4.4297 ug/L       4.00667     -4.4297 ppb        4.00667  90.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               50.7      1.5966 ug/L       0.11133      1.5966 ppb        0.11133   6.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.8     -3.5893 ug/L       6.17367     -3.5893 ppb        6.17367 172.00%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.2     -0.3445 ug/L       0.42573     -0.3445 ppb        0.42573 123.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.0     -3.5480 ug/L       4.40521     -3.5480 ppb        4.40521 124.16%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.8      1.9714 ug/L       3.09786      1.9714 ppb        3.09786 157.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.8      0.5701 ug/L       1.21111      0.5701 ppb        1.21111 212.44%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               29.2      1.0835 ug/L       0.01438      1.0835 ppb        0.01438   1.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.5     -0.1236 ug/L       0.77965     -0.1236 ppb        0.77965 630.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -8.0     -0.0797 ug/L       0.04926     -0.0797 ppb        0.04926  61.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -19.3     -0.0437 ug/L       0.01364     -0.0437 ppb        0.01364  31.22%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.3      0.5144 ug/L       2.16824      0.5144 ppb        2.16824 421.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                58.8      1.7191 ug/L       2.64178      1.7191 ppb        2.64178 153.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                57.4      0.4559 ug/L       0.35276      0.4559 ppb        0.35276  77.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               55.3      0.6634 ug/L       0.04435      0.6634 ppb        0.04435   6.68%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     17.6      1.3830 ug/L       1.31048      1.3830 ppb        1.31048  94.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 41 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/9/2010 22:27:27**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3284.4	3284.4	98.0	%			22:29:38
1	Y RADIAL	2655.6	2655.6	96.80	%			22:29:38
1	Al 396.153Radial†	2201.6	2305.9	4931.7	ug/L	4931.7	ppb	22:29:18
1	Ca 317.933Radial†	1272.6	1288.0	5111.3	ug/L	5111.3	ppb	22:29:38
1	Fe 238.204 Radial†	188.0	183.1	5105.1	ug/L	5105.1	ppb	22:29:38
1	K 766.490 Radial†	12916.5	11061.7	5057.5	ug/L	5057.5	ppb	22:29:18
1	Mg 279.077 IEC†	50.9	51.5	4994.2	ug/L	4994.2	ppb	22:29:38
1	Na 589.592 Radial†	27646.7	28985.0	9679.7	ug/L	9679.7	ppb	22:29:18
1	Sr 421.552†	50030.0	50999.8	505.68	ug/L	505.68	ppb	22:29:18
1	Sc 361.383	850988.9	850988.9	101.95	%			22:30:36
1	Y 371.029	719606.5	719606.5	100.55	%			22:30:36
1	Ag 328.068†	100976.8	98890.3	502.73	ug/L	502.73	ppb	22:30:41
1	As 188.979†	895.6	894.4	501.48	ug/L	501.48	ppb	22:31:01
1	B 249.677†	17798.1	17548.5	489.65	ug/L	489.65	ppb	22:30:41
1	Ba 233.527†	54308.5	53279.1	498.85	ug/L	498.85	ppb	22:30:41
1	Be 313.107†	1172747.8	1153974.6	499.13	ug/L	499.13	ppb	22:30:36
1	Cd 226.502†	34970.4	34444.5	497.80	ug/L	497.80	ppb	22:30:41
1	Co 228.616†	19906.6	19570.1	507.60	ug/L	507.60	ppb	22:30:41
1	Cr 267.716†	38891.6	38083.5	497.46	ug/L	497.46	ppb	22:30:41
1	Cu 324.752†	164140.8	154937.2	498.60	ug/L	498.60	ppb	22:30:41
1	Mn 257.610†	381511.2	373839.1	490.18	ug/L	490.18	ppb	22:30:41
1	Mo 202.031†	5833.7	5708.5	493.18	ug/L	493.18	ppb	22:31:01
1	Ni 231.604†	16385.0	16019.2	504.60	ug/L	504.60	ppb	22:30:41
1	P 214.914†	3483.4	3241.5	2364.8	ug/L	2364.8	ppb	22:31:01
1	Pb 220.353†	3214.5	3197.1	496.44	ug/L	496.44	ppb	22:31:01
1	S 181.975 Axial†	602.5	560.1	998.09	ug/L	998.09	ppb	22:31:01
1	Sb 206.836†	1244.2	1192.0	511.74	ug/L	511.74	ppb	22:31:01
1	Se 196.026†	595.7	603.5	508.01	ug/L	508.01	ppb	22:31:01
1	Si 251.611†	69230.7	67456.8	2495.1	ug/L	2495.1	ppb	22:30:41
1	Sn 189.927†	2239.2	2188.6	497.94	ug/L	497.94	ppb	22:31:01
1	Ti 334.940†	292890.2	288259.7	489.80	ug/L	489.80	ppb	22:30:41
1	Tl 190.801†	1289.4	1295.8	505.89	ug/L	505.89	ppb	22:31:01
1	U 409.014†	15937.2	17636.1	513.32	ug/L	513.32	ppb	22:30:41
1	V 292.402†	63751.6	63781.5	504.49	ug/L	504.49	ppb	22:30:41
1	Zn 213.857†	42452.8	41140.0	494.52	ug/L	494.52	ppb	22:30:41
1	SiO2†	68670.5	66881.2	5240.4	ug/L	5240.4	ppb	22:32:08
2	Sc Radial	3082.9	3082.9	92.0	%			22:30:04
2	Y RADIAL	2503.4	2503.4	91.26	%			22:30:04
2	Al 396.153Radial†	2181.4	2430.6	5199.1	ug/L	5199.1	ppb	22:29:44
2	Ca 317.933Radial†	1288.1	1389.6	5514.8	ug/L	5514.8	ppb	22:30:04
2	Fe 238.204 Radial†	193.8	202.0	5629.3	ug/L	5629.3	ppb	22:30:04
2	K 766.490 Radial†	12699.7	11687.1	5343.4	ug/L	5343.4	ppb	22:29:44
2	Mg 279.077 IEC†	54.2	58.5	5677.3	ug/L	5677.3	ppb	22:30:04
2	Na 589.592 Radial†	27163.6	30302.8	10120	ug/L	10120	ppb	22:29:44
2	Sr 421.552†	49419.1	53670.9	532.16	ug/L	532.16	ppb	22:29:44
2	Sc 361.383	822155.6	822155.6	98.492	%			22:31:06
2	Y 371.029	695059.6	695059.6	97.121	%			22:31:06
2	Ag 328.068†	100782.8	102166.9	519.50	ug/L	519.50	ppb	22:31:12
2	As 188.979†	877.2	906.6	508.50	ug/L	508.50	ppb	22:31:32
2	B 249.677†	17713.3	18074.8	504.26	ug/L	504.26	ppb	22:31:12
2	Ba 233.527†	54532.2	55374.4	518.47	ug/L	518.47	ppb	22:31:12
2	Be 313.107†	1168906.4	1190417.9	514.90	ug/L	514.90	ppb	22:31:06
2	Cd 226.502†	35040.8	35718.9	516.19	ug/L	516.19	ppb	22:31:12
2	Co 228.616†	19952.2	20301.3	526.56	ug/L	526.56	ppb	22:31:12
2	Cr 267.716†	39019.5	39551.2	516.64	ug/L	516.64	ppb	22:31:12
2	Cu 324.752†	163853.7	160292.2	515.85	ug/L	515.85	ppb	22:31:12
2	Mn 257.610†	382407.5	387873.4	508.60	ug/L	508.60	ppb	22:31:12
2	Mo 202.031†	5829.3	5904.8	510.17	ug/L	510.17	ppb	22:31:32
2	Ni 231.604†	16494.3	16693.8	525.86	ug/L	525.86	ppb	22:31:12

2	P 214.914†	3467.5	3345.2	2439.8 ug/L	2439.8 ppb	22:31:32
2	Pb 220.353†	3199.9	3292.8	511.28 ug/L	511.28 ppb	22:31:32
2	S 181.975 Axial†	586.9	565.1	1006.9 ug/L	1006.9 ppb	22:31:32
2	Sb 206.836†	1232.3	1222.7	525.03 ug/L	525.03 ppb	22:31:32
2	Se 196.026†	593.9	622.2	524.74 ug/L	524.74 ppb	22:31:32
2	Si 251.611†	69255.2	69863.3	2584.1 ug/L	2584.1 ppb	22:31:12
2	Sn 189.927†	2226.9	2253.2	512.66 ug/L	512.66 ppb	22:31:32
2	Ti 334.940†	293438.5	298892.1	507.86 ug/L	507.86 ppb	22:31:12
2	Tl 190.801†	1272.8	1323.3	516.68 ug/L	516.68 ppb	22:31:32
2	U 409.014†	15957.1	18204.6	529.82 ug/L	529.82 ppb	22:31:12
2	V 292.402†	63831.4	66055.5	522.43 ug/L	522.43 ppb	22:31:12
2	Zn 213.857†	42669.2	42820.2	514.67 ug/L	514.67 ppb	22:31:12
2	SiO2†	69363.5	69947.1	5480.7 ug/L	5480.7 ppb	22:32:13
3	Sc Radial	3276.8	3276.8	97.8 %		22:30:29
3	Y RADIAL	2657.1	2657.1	96.86 %		22:30:29
3	Al 396.153Radial†	2147.7	2256.0	4824.3 ug/L	4824.3 ppb	22:30:09
3	Ca 317.933Radial†	1278.4	1296.9	5146.9 ug/L	5146.9 ppb	22:30:29
3	Fe 238.204 Radial†	189.4	185.0	5158.7 ug/L	5158.7 ppb	22:30:29
3	K 766.490 Radial†	12600.7	10769.5	4923.8 ug/L	4923.8 ppb	22:30:09
3	Mg 279.077 IEC†	54.9	55.7	5403.4 ug/L	5403.4 ppb	22:30:29
3	Na 589.592 Radial†	26600.7	27981.3	9344.5 ug/L	9344.5 ppb	22:30:09
3	Sr 421.552†	48307.4	49357.7	489.40 ug/L	489.40 ppb	22:30:09
3	Sc 361.383	842036.5	842036.5	100.87 %		22:31:37
3	Y 371.029	711483.5	711483.5	99.416 %		22:31:37
3	Ag 328.068†	101640.4	100601.2	511.41 ug/L	511.41 ppb	22:31:42
3	As 188.979†	889.5	897.8	503.41 ug/L	503.41 ppb	22:32:02
3	B 249.677†	18070.5	18004.2	502.39 ug/L	502.39 ppb	22:31:42
3	Ba 233.527†	54627.8	54162.0	507.11 ug/L	507.11 ppb	22:31:42
3	Be 313.107†	1173126.8	1166580.7	504.59 ug/L	504.59 ppb	22:31:37
3	Cd 226.502†	35059.5	34897.5	504.35 ug/L	504.35 ppb	22:31:42
3	Co 228.616†	20065.7	19935.5	517.08 ug/L	517.08 ppb	22:31:42
3	Cr 267.716†	39085.6	38681.5	505.27 ug/L	505.27 ppb	22:31:42
3	Cu 324.752†	165349.2	157846.9	507.96 ug/L	507.96 ppb	22:31:42
3	Mn 257.610†	383144.2	379436.7	497.51 ug/L	497.51 ppb	22:31:42
3	Mo 202.031†	5866.4	5801.9	501.24 ug/L	501.24 ppb	22:32:02
3	Ni 231.604†	16478.1	16282.3	512.89 ug/L	512.89 ppb	22:31:42
3	P 214.914†	3504.1	3298.4	2406.1 ug/L	2406.1 ppb	22:32:02
3	Pb 220.353†	3214.7	3230.8	501.64 ug/L	501.64 ppb	22:32:02
3	S 181.975 Axial†	593.0	557.0	992.62 ug/L	992.62 ppb	22:32:02
3	Sb 206.836†	1247.3	1208.0	518.62 ug/L	518.62 ppb	22:32:02
3	Se 196.026†	602.5	616.5	518.70 ug/L	518.70 ppb	22:32:02
3	Si 251.611†	69580.2	68525.3	2534.6 ug/L	2534.6 ppb	22:31:42
3	Sn 189.927†	2238.5	2211.3	503.10 ug/L	503.10 ppb	22:32:02
3	Ti 334.940†	294819.2	293226.5	498.21 ug/L	498.21 ppb	22:31:42
3	Tl 190.801†	1285.5	1305.5	509.67 ug/L	509.67 ppb	22:32:02
3	U 409.014†	16129.4	17992.9	523.72 ug/L	523.72 ppb	22:31:42
3	V 292.402†	63981.1	64673.8	511.58 ug/L	511.58 ppb	22:31:42
3	Zn 213.857†	42834.8	41961.4	504.41 ug/L	504.41 ppb	22:31:42
3	SiO2†	69118.3	68041.3	5331.3 ug/L	5331.3 ppb	22:32:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	838393.7	100.44	%	1.768				1.76%
Sc Radial	3214.7	95.9	%	3.41				3.55%
Y 371.029	708716.5	99.029	%	1.7474				1.76%
Y RADIAL	2605.4	94.97	%	3.218				3.39%
Ag 328.068†	100552.8	511.21	ug/L	8.386	511.21	ppb	8.386	1.64%
QC value within limits for Ag 328.068 Recovery = 102.24%								
Al 396.153Radial†	2330.8	4985.0	ug/L	193.02	4985.0	ppb	193.02	3.87%
QC value within limits for Al 396.153Radial Recovery = 99.70%								
As 188.979†	899.6	504.46	ug/L	3.625	504.46	ppb	3.625	0.72%
QC value within limits for As 188.979 Recovery = 100.89%								
B 249.677†	17875.9	498.77	ug/L	7.951	498.77	ppb	7.951	1.59%
QC value within limits for B 249.677 Recovery = 99.75%								
Ba 233.527†	54271.8	508.14	ug/L	9.853	508.14	ppb	9.853	1.94%
QC value within limits for Ba 233.527 Recovery = 101.63%								
Be 313.107†	1170324.4	506.21	ug/L	8.008	506.21	ppb	8.008	1.58%
QC value within limits for Be 313.107 Recovery = 101.24%								
Ca 317.933Radial†	1324.8	5257.7	ug/L	223.38	5257.7	ppb	223.38	4.25%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.15%
Cd 226.502†            35020.3      506.11 ug/L         9.318      506.11 ppb          9.318   1.84%
   QC value within limits for Cd 226.502  Recovery = 101.22%
Co 228.616†            19935.6      517.08 ug/L         9.478      517.08 ppb          9.478   1.83%
   QC value within limits for Co 228.616  Recovery = 103.42%
Cr 267.716†            38772.1      506.46 ug/L         9.647      506.46 ppb          9.647   1.90%
   QC value within limits for Cr 267.716  Recovery = 101.29%
Cu 324.752†           157692.1      507.47 ug/L         8.636      507.47 ppb          8.636   1.70%
   QC value within limits for Cu 324.752  Recovery = 101.49%
Fe 238.204 Radial†       190.0      5297.7 ug/L       288.40      5297.7 ppb         288.40   5.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.95%
K 766.490 Radial†      11172.8      5108.2 ug/L       214.36      5108.2 ppb         214.36   4.20%
   QC value within limits for K 766.490 Radial  Recovery = 102.16%
Mg 279.077 IEC†           55.2      5358.3 ug/L       343.80      5358.3 ppb         343.80   6.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.17%
Mn 257.610†           380383.1      498.76 ug/L         9.271      498.76 ppb          9.271   1.86%
   QC value within limits for Mn 257.610  Recovery = 99.75%
Mo 202.031†             5805.1      501.53 ug/L         8.498      501.53 ppb          8.498   1.69%
   QC value within limits for Mo 202.031  Recovery = 100.31%
Na 589.592 Radial†     29089.7      9714.7 ug/L       388.83      9714.7 ppb         388.83   4.00%
   QC value within limits for Na 589.592 Radial  Recovery = 97.15%
Ni 231.604†            16331.8      514.45 ug/L        10.712      514.45 ppb         10.712   2.08%
   QC value within limits for Ni 231.604  Recovery = 102.89%
P 214.914†              3295.0      2403.6 ug/L        37.59      2403.6 ppb          37.59   1.56%
   QC value within limits for P 214.914  Recovery = 96.14%
Pb 220.353†             3240.2      503.12 ug/L         7.531      503.12 ppb          7.531   1.50%
   QC value within limits for Pb 220.353  Recovery = 100.62%
S 181.975 Axial†         560.7      999.19 ug/L         7.183      999.19 ppb          7.183   0.72%
   QC value within limits for S 181.975 Axial  Recovery = 99.92%
Sb 206.836†             1207.6      518.46 ug/L         6.646      518.46 ppb          6.646   1.28%
   QC value within limits for Sb 206.836  Recovery = 103.69%
Se 196.026†              614.1      517.15 ug/L         8.475      517.15 ppb          8.475   1.64%
   QC value within limits for Se 196.026  Recovery = 103.43%
Si 251.611†            68615.1      2538.0 ug/L        44.60      2538.0 ppb          44.60   1.76%
   QC value within limits for Si 251.611  Recovery = 101.52%
Sn 189.927†             2217.7      504.57 ug/L         7.468      504.57 ppb          7.468   1.48%
   QC value within limits for Sn 189.927  Recovery = 100.91%
Sr 421.552†            51342.8      509.08 ug/L        21.585      509.08 ppb         21.585   4.24%
   QC value within limits for Sr 421.552  Recovery = 101.82%
Ti 334.940†           293459.4      498.62 ug/L         9.035      498.62 ppb          9.035   1.81%
   QC value within limits for Ti 334.940  Recovery = 99.72%
Tl 190.801†             1308.2      510.74 ug/L         5.474      510.74 ppb          5.474   1.07%
   QC value within limits for Tl 190.801  Recovery = 102.15%
U 409.014†             17944.5      522.29 ug/L         8.341      522.29 ppb          8.341   1.60%
   QC value within limits for U 409.014  Recovery = 104.46%
V 292.402†             64836.9      512.83 ug/L         9.032      512.83 ppb          9.032   1.76%
   QC value within limits for V 292.402  Recovery = 102.57%
Zn 213.857†            41973.9      504.53 ug/L        10.075      504.53 ppb         10.075   2.00%
   QC value within limits for Zn 213.857  Recovery = 100.91%
SiO2†                  68289.9      5350.8 ug/L       121.37      5350.8 ppb         121.37   2.27%
   QC value within limits for SiO2  Recovery = 100.06%
All analyte(s) passed QC.
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Sequence No.: 42 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/9/2010 22:34:28**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3132.0	3132.0	93.5	%			22:36:40
1	Y RADIAL	2555.9	2555.9	93.17	%			22:36:40
1	Al 396.153Radial†	-61.7	-6.0	-12.893	ug/L	-12.893	ppb	22:36:40
1	Ca 317.933Radial†	6.9	-2.8	-11.123	ug/L	-11.123	ppb	22:36:40
1	Fe 238.204 Radial†	8.3	0.2	6.0144	ug/L	6.0144	ppb	22:36:40
1	K 766.490 Radial†	2069.7	99.6	45.610	ug/L	45.610	ppb	22:36:20
1	Mg 279.077 IEC†	-1.2	-1.7	-167.56	ug/L	-167.56	ppb	22:36:40
1	Na 589.592 Radial†	-785.4	-57.6	-19.231	ug/L	-19.231	ppb	22:36:20
1	Sr 421.552†	9.3	-25.8	-0.2554	ug/L	-0.2554	ppb	22:36:20
1	Sc 361.383	832266.4	832266.4	99.703	%			22:37:37
1	Y 371.029	713617.8	713617.8	99.714	%			22:37:37
1	Ag 328.068†	149.7	-9.0	-0.0436	ug/L	-0.0436	ppb	22:37:37
1	As 188.979†	-13.1	2.9	1.5984	ug/L	1.5984	ppb	22:37:57
1	B 249.677†	-133.2	-43.4	-1.2178	ug/L	-1.2178	ppb	22:37:57
1	Ba 233.527†	-3.9	3.3	0.0311	ug/L	0.0311	ppb	22:37:57
1	Be 313.107†	-3486.9	115.3	0.0497	ug/L	0.0497	ppb	22:37:37
1	Cd 226.502†	-147.4	-6.3	-0.0899	ug/L	-0.0899	ppb	22:37:57
1	Co 228.616†	-49.9	-6.5	-0.1689	ug/L	-0.1689	ppb	22:37:57
1	Cr 267.716†	68.0	2.5	0.0326	ug/L	0.0326	ppb	22:37:57
1	Cu 324.752†	6012.4	-40.1	-0.1293	ug/L	-0.1293	ppb	22:37:37
1	Mn 257.610†	411.1	22.6	0.0371	ug/L	0.0371	ppb	22:37:57
1	Mo 202.031†	10.3	-3.5	-0.3007	ug/L	-0.3007	ppb	22:37:57
1	Ni 231.604†	110.6	57.8	1.8234	ug/L	1.8234	ppb	22:37:57
1	P 214.914†	175.5	0.6	0.4710	ug/L	0.4710	ppb	22:37:57
1	Pb 220.353†	-42.4	1.4	0.2074	ug/L	0.2074	ppb	22:37:57
1	S 181.975 Axial†	34.4	3.7	6.5899	ug/L	6.5899	ppb	22:37:57
1	Sb 206.836†	33.5	5.1	2.1112	ug/L	2.1112	ppb	22:37:57
1	Se 196.026†	-19.4	-0.2	-0.1493	ug/L	-0.1493	ppb	22:37:57
1	Si 251.611†	509.0	58.1	2.1580	ug/L	2.1580	ppb	22:37:57
1	Sn 189.927†	9.6	1.9	0.4191	ug/L	0.4191	ppb	22:37:57
1	Ti 334.940†	-977.5	-20.1	-0.0224	ug/L	-0.0224	ppb	22:37:37
1	Tl 190.801†	-26.6	4.3	1.6848	ug/L	1.6848	ppb	22:37:57
1	U 409.014†	-1966.5	30.8	0.8984	ug/L	0.8984	ppb	22:37:37
1	V 292.402†	-1229.0	14.1	0.1037	ug/L	0.1037	ppb	22:37:37
1	Zn 213.857†	605.9	105.3	1.2650	ug/L	1.2650	ppb	22:37:57
1	SiO2†	507.7	30.8	2.4240	ug/L	2.4240	ppb	22:39:08
2	Sc Radial	3361.8	3361.8	100	%			22:37:05
2	Y RADIAL	2730.2	2730.2	99.53	%			22:37:05
2	Al 396.153Radial†	-69.1	-8.8	-18.913	ug/L	-18.913	ppb	22:37:05
2	Ca 317.933Radial†	11.5	1.3	5.0859	ug/L	5.0859	ppb	22:37:05
2	Fe 238.204 Radial†	6.5	-2.1	-59.507	ug/L	-59.507	ppb	22:37:05
2	K 766.490 Radial†	2129.1	7.5	3.4266	ug/L	3.4266	ppb	22:36:45
2	Mg 279.077 IEC†	1.9	1.5	143.10	ug/L	143.10	ppb	22:37:05
2	Na 589.592 Radial†	-772.7	12.5	4.1896	ug/L	4.1896	ppb	22:36:45
2	Sr 421.552†	7.4	-28.3	-0.2808	ug/L	-0.2808	ppb	22:36:45
2	Sc 361.383	836737.3	836737.3	100.24	%			22:38:02
2	Y 371.029	716281.5	716281.5	100.09	%			22:38:02
2	Ag 328.068†	98.3	-61.0	-0.3270	ug/L	-0.3270	ppb	22:38:02
2	As 188.979†	-23.0	-6.9	-3.8694	ug/L	-3.8694	ppb	22:38:22
2	B 249.677†	-172.9	-82.2	-2.2952	ug/L	-2.2952	ppb	22:38:22
2	Ba 233.527†	2.3	9.5	0.0879	ug/L	0.0879	ppb	22:38:22
2	Be 313.107†	-3557.8	63.2	0.0273	ug/L	0.0273	ppb	22:38:02
2	Cd 226.502†	-142.7	-0.8	-0.0042	ug/L	-0.0042	ppb	22:38:22
2	Co 228.616†	-48.1	-4.4	-0.1129	ug/L	-0.1129	ppb	22:38:22
2	Cr 267.716†	60.9	-5.0	-0.0678	ug/L	-0.0678	ppb	22:38:22
2	Cu 324.752†	6031.0	-53.8	-0.1777	ug/L	-0.1777	ppb	22:38:02
2	Mn 257.610†	390.1	-0.5	-0.0123	ug/L	-0.0123	ppb	22:38:22
2	Mo 202.031†	12.6	-1.2	-0.1053	ug/L	-0.1053	ppb	22:38:22
2	Ni 231.604†	89.6	36.3	1.1448	ug/L	1.1448	ppb	22:38:22

2	P 214.914†	176.8	0.9	0.7856 ug/L	0.7856 ppb	22:38:22
2	Pb 220.353†	-38.8	5.2	0.8161 ug/L	0.8161 ppb	22:38:22
2	S 181.975 Axial†	28.7	-2.2	-3.9951 ug/L	-3.9951 ppb	22:38:22
2	Sb 206.836†	32.8	4.3	1.7544 ug/L	1.7544 ppb	22:38:22
2	Se 196.026†	-17.7	1.5	1.0831 ug/L	1.0831 ppb	22:38:22
2	Si 251.611†	505.4	51.8	1.9232 ug/L	1.9232 ppb	22:38:22
2	Sn 189.927†	3.3	-4.5	-1.0276 ug/L	-1.0276 ppb	22:38:22
2	Ti 334.940†	-968.0	-5.5	-0.0215 ug/L	-0.0215 ppb	22:38:02
2	Tl 190.801†	-32.6	-1.4	-0.5608 ug/L	-0.5608 ppb	22:38:22
2	U 409.014†	-1912.3	95.4	2.7930 ug/L	2.7930 ppb	22:38:02
2	V 292.402†	-1188.8	60.8	0.4898 ug/L	0.4898 ppb	22:38:02
2	Zn 213.857†	594.4	90.5	1.1005 ug/L	1.1005 ppb	22:38:22
2	SiO2†	515.5	35.8	2.8161 ug/L	2.8161 ppb	22:39:28
3	Sc Radial	3294.3	3294.3	98.3 %		22:37:30
3	Y RADIAL	2688.5	2688.5	98.00 %		22:37:30
3	Al 396.153Radial†	-63.6	-4.7	-10.022 ug/L	-10.022 ppb	22:37:30
3	Ca 317.933Radial†	10.6	0.6	2.3587 ug/L	2.3587 ppb	22:37:30
3	Fe 238.204 Radial†	9.3	0.8	23.302 ug/L	23.302 ppb	22:37:30
3	K 766.490 Radial†	2092.8	14.1	6.4398 ug/L	6.4398 ppb	22:37:10
3	Mg 279.077 IEC†	0.8	0.4	34.264 ug/L	34.264 ppb	22:37:30
3	Na 589.592 Radial†	-766.3	3.2	1.0733 ug/L	1.0733 ppb	22:37:10
3	Sr 421.552†	2.2	-33.4	-0.3316 ug/L	-0.3316 ppb	22:37:10
3	Sc 361.383	832755.6	832755.6	99.762 %		22:38:28
3	Y 371.029	712374.5	712374.5	99.540 %		22:38:28
3	Ag 328.068†	111.1	-47.7	-0.2349 ug/L	-0.2349 ppb	22:38:28
3	As 188.979†	-22.8	-6.9	-3.8269 ug/L	-3.8269 ppb	22:38:48
3	B 249.677†	-174.4	-84.7	-2.3764 ug/L	-2.3764 ppb	22:38:48
3	Ba 233.527†	-6.0	1.1	0.0119 ug/L	0.0119 ppb	22:38:48
3	Be 313.107†	-3552.7	51.4	0.0223 ug/L	0.0223 ppb	22:38:28
3	Cd 226.502†	-147.7	-6.5	-0.0949 ug/L	-0.0949 ppb	22:38:48
3	Co 228.616†	-48.1	-4.6	-0.1219 ug/L	-0.1219 ppb	22:38:48
3	Cr 267.716†	58.5	-7.1	-0.0924 ug/L	-0.0924 ppb	22:38:48
3	Cu 324.752†	6019.7	-36.4	-0.1176 ug/L	-0.1176 ppb	22:38:28
3	Mn 257.610†	379.7	-9.1	-0.0110 ug/L	-0.0110 ppb	22:38:48
3	Mo 202.031†	4.9	-8.8	-0.7609 ug/L	-0.7609 ppb	22:38:48
3	Ni 231.604†	106.3	53.5	1.6857 ug/L	1.6857 ppb	22:38:48
3	P 214.914†	172.6	-2.4	-1.8347 ug/L	-1.8347 ppb	22:38:48
3	Pb 220.353†	-45.0	-1.2	-0.1980 ug/L	-0.1980 ppb	22:38:48
3	S 181.975 Axial†	31.0	0.3	0.4629 ug/L	0.4629 ppb	22:38:48
3	Sb 206.836†	30.2	1.8	0.7590 ug/L	0.7590 ppb	22:38:48
3	Se 196.026†	-19.5	-0.3	-0.1969 ug/L	-0.1969 ppb	22:38:48
3	Si 251.611†	483.6	32.4	1.2098 ug/L	1.2098 ppb	22:38:48
3	Sn 189.927†	12.1	4.4	0.9878 ug/L	0.9878 ppb	22:38:48
3	Ti 334.940†	-919.7	38.3	0.0612 ug/L	0.0612 ppb	22:38:28
3	Tl 190.801†	-25.7	5.3	2.0533 ug/L	2.0533 ppb	22:38:48
3	U 409.014†	-1885.0	113.6	3.3156 ug/L	3.3156 ppb	22:38:28
3	V 292.402†	-1199.5	44.4	0.3392 ug/L	0.3392 ppb	22:38:28
3	Zn 213.857†	586.0	85.0	1.0170 ug/L	1.0170 ppb	22:38:48
3	SiO2†	509.5	32.2	2.5523 ug/L	2.5523 ppb	22:39:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	833919.8	99.901	%	0.2938				0.29%
Sc Radial	3262.7	97.4	%	3.53				3.62%
Y 371.029	714091.3	99.780	%	0.2789				0.28%
Y RADIAL	2658.2	96.90	%	3.318				3.42%
Ag 328.068†	-39.2	-0.2018	ug/L	0.14459	-0.2018	ppb	0.14459	71.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.5	-13.942	ug/L	4.5374	-13.942	ppb	4.5374	32.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.7	-2.0326	ug/L	3.14462	-2.0326	ppb	3.14462	154.71%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-70.1	-1.9631	ug/L	0.64676	-1.9631	ppb	0.64676	32.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.6	0.0436	ug/L	0.03950	0.0436	ppb	0.03950	90.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	76.6	0.0331	ug/L	0.01458	0.0331	ppb	0.01458	44.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.3	-1.2263	ug/L	8.67896	-1.2263	ppb	8.67896	707.76%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -4.5     -0.0630 ug/L       0.05100     -0.0630 ppb        0.05100  80.96%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -5.2     -0.1346 ug/L       0.03010     -0.1346 ppb        0.03010  22.37%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.2     -0.0425 ug/L       0.06621     -0.0425 ppb        0.06621 155.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -43.4     -0.1415 ug/L       0.03185     -0.1415 ppb        0.03185  22.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.4     -10.064 ug/L       43.6835     -10.064 ppb        43.6835 434.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        40.4      18.492 ug/L       23.5331      18.492 ppb        23.5331 127.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.0      3.2655 ug/L     157.63184      3.2655 ppb      157.63184 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               4.4      0.0046 ug/L       0.02816      0.0046 ppb        0.02816 611.77%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -4.5     -0.3890 ug/L       0.33661     -0.3890 ppb        0.33661  86.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -13.9     -4.6561 ug/L      12.71822     -4.6561 ppb       12.71822 273.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              49.2      1.5513 ug/L       0.35871      1.5513 ppb        0.35871  23.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.3     -0.1927 ug/L       1.43070     -0.1927 ppb        1.43070 742.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.8      0.2752 ug/L       0.51042      0.2752 ppb        0.51042 185.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.6      1.0192 ug/L       5.31438      1.0192 ppb        5.31438 521.41%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.7      1.5415 ug/L       0.70076      1.5415 ppb        0.70076  45.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.3      0.2456 ug/L       0.72570      0.2456 ppb        0.72570 295.46%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              47.4      1.7637 ug/L       0.49384      1.7637 ppb        0.49384  28.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.6      0.1264 ug/L       1.03908      0.1264 ppb        1.03908 822.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -29.2     -0.2892 ug/L       0.03881     -0.2892 ppb        0.03881  13.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               4.3      0.0058 ug/L       0.04801      0.0058 ppb        0.04801 830.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.7      1.0591 ug/L       1.41490      1.0591 ppb        1.41490 133.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               79.9      2.3357 ug/L       1.27186      2.3357 ppb        1.27186  54.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               39.8      0.3109 ug/L       0.19458      0.3109 ppb        0.19458  62.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              93.6      1.1275 ug/L       0.12620      1.1275 ppb        0.12620  11.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    32.9      2.5975 ug/L       0.19990      2.5975 ppb        0.19990   7.70%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 48 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/9/2010 23:16:29**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3292.5	3292.5	98.3	%			23:18:42
1	Y RADIAL	2682.1	2682.1	97.77	%			23:18:42
1	Al 396.153Radial†	2210.0	2308.9	4938.0	ug/L	4938.0	ppb	23:18:22
1	Ca 317.933Radial†	1263.8	1275.9	5063.4	ug/L	5063.4	ppb	23:18:42
1	Fe 238.204 Radial†	184.5	179.1	4992.7	ug/L	4992.7	ppb	23:18:42
1	K 766.490 Radial†	12741.9	10851.5	4961.2	ug/L	4961.2	ppb	23:18:22
1	Mg 279.077 IEC†	52.4	52.9	5132.1	ug/L	5132.1	ppb	23:18:42
1	Na 589.592 Radial†	27873.1	29145.9	9733.5	ug/L	9733.5	ppb	23:18:22
1	Sr 421.552†	50114.6	50960.3	505.29	ug/L	505.29	ppb	23:18:22
1	Sc 361.383	841353.0	841353.0	100.79	%			23:19:39
1	Y 371.029	711800.5	711800.5	99.460	%			23:19:39
1	Ag 328.068†	100310.8	99363.8	505.09	ug/L	505.09	ppb	23:19:44
1	As 188.979†	891.0	900.0	504.54	ug/L	504.54	ppb	23:20:04
1	B 249.677†	17429.7	17383.1	485.02	ug/L	485.02	ppb	23:19:44
1	Ba 233.527†	53851.8	53436.0	500.31	ug/L	500.31	ppb	23:19:44
1	Be 313.107†	1169714.2	1164139.7	503.52	ug/L	503.52	ppb	23:19:39
1	Cd 226.502†	34597.1	34467.0	498.14	ug/L	498.14	ppb	23:19:44
1	Co 228.616†	19761.3	19649.6	509.68	ug/L	509.68	ppb	23:19:44
1	Cr 267.716†	38574.1	38205.4	499.04	ug/L	499.04	ppb	23:19:44
1	Cu 324.752†	162611.4	155263.8	499.65	ug/L	499.65	ppb	23:19:44
1	Mn 257.610†	386080.4	382658.5	501.72	ug/L	501.72	ppb	23:19:39
1	Mo 202.031†	5838.8	5779.2	499.27	ug/L	499.27	ppb	23:20:04
1	Ni 231.604†	16282.6	16101.7	507.20	ug/L	507.20	ppb	23:19:44
1	P 214.914†	3487.3	3284.5	2397.3	ug/L	2397.3	ppb	23:20:04
1	Pb 220.353†	3240.6	3259.0	506.06	ug/L	506.06	ppb	23:20:04
1	S 181.975 Axial†	589.6	554.2	987.48	ug/L	987.48	ppb	23:20:04
1	Sb 206.836†	1249.0	1210.7	519.67	ug/L	519.67	ppb	23:20:04
1	Se 196.026†	602.0	616.5	518.24	ug/L	518.24	ppb	23:20:04
1	Si 251.611†	68637.3	67645.8	2502.1	ug/L	2502.1	ppb	23:19:44
1	Sn 189.927†	2225.8	2200.5	500.65	ug/L	500.65	ppb	23:20:04
1	Ti 334.940†	289673.9	288359.0	489.95	ug/L	489.95	ppb	23:19:44
1	Tl 190.801†	1272.0	1293.1	504.86	ug/L	504.86	ppb	23:20:04
1	U 409.014†	15714.6	17594.3	512.11	ug/L	512.11	ppb	23:19:44
1	V 292.402†	63092.0	63843.3	505.08	ug/L	505.08	ppb	23:19:44
1	Zn 213.857†	42206.3	41372.4	497.34	ug/L	497.34	ppb	23:19:44
1	SiO2†	68369.2	67353.7	5277.3	ug/L	5277.3	ppb	23:21:12
2	Sc Radial	3240.3	3240.3	96.7	%			23:19:07
2	Y RADIAL	2635.7	2635.7	96.08	%			23:19:07
2	Al 396.153Radial†	2219.6	2355.0	5036.9	ug/L	5036.9	ppb	23:18:47
2	Ca 317.933Radial†	1268.5	1301.4	5164.9	ug/L	5164.9	ppb	23:19:07
2	Fe 238.204 Radial†	187.7	185.5	5170.1	ug/L	5170.1	ppb	23:19:07
2	K 766.490 Radial†	12858.2	11180.7	5111.8	ug/L	5111.8	ppb	23:18:47
2	Mg 279.077 IEC†	50.9	52.1	5060.6	ug/L	5060.6	ppb	23:19:07
2	Na 589.592 Radial†	28065.7	29802.1	9952.6	ug/L	9952.6	ppb	23:18:47
2	Sr 421.552†	50448.2	52127.0	516.86	ug/L	516.86	ppb	23:18:47
2	Sc 361.383	834391.9	834391.9	99.958	%			23:20:10
2	Y 371.029	705673.9	705673.9	98.604	%			23:20:10
2	Ag 328.068†	100528.1	100411.6	510.45	ug/L	510.45	ppb	23:20:15
2	As 188.979†	883.1	899.4	504.29	ug/L	504.29	ppb	23:20:35
2	B 249.677†	17543.7	17641.3	492.22	ug/L	492.22	ppb	23:20:15
2	Ba 233.527†	53881.1	53911.1	504.76	ug/L	504.76	ppb	23:20:15
2	Be 313.107†	1167602.1	1171708.6	506.79	ug/L	506.79	ppb	23:20:10
2	Cd 226.502†	34584.0	34740.2	502.08	ug/L	502.08	ppb	23:20:15
2	Co 228.616†	19774.8	19826.7	514.27	ug/L	514.27	ppb	23:20:15
2	Cr 267.716†	38609.9	38560.5	503.69	ug/L	503.69	ppb	23:20:15
2	Cu 324.752†	162959.7	156958.2	505.11	ug/L	505.11	ppb	23:20:15
2	Mn 257.610†	385687.4	385460.9	505.42	ug/L	505.42	ppb	23:20:10
2	Mo 202.031†	5839.5	5828.2	503.52	ug/L	503.52	ppb	23:20:35
2	Ni 231.604†	16253.1	16207.0	510.52	ug/L	510.52	ppb	23:20:15

2	P 214.914†	3475.3	3301.4	2408.9 ug/L	2408.9 ppb	23:20:35
2	Pb 220.353†	3211.6	3256.9	505.73 ug/L	505.73 ppb	23:20:35
2	S 181.975 Axial†	587.2	556.5	991.72 ug/L	991.72 ppb	23:20:35
2	Sb 206.836†	1238.2	1210.2	519.53 ug/L	519.53 ppb	23:20:35
2	Se 196.026†	610.9	630.4	530.09 ug/L	530.09 ppb	23:20:35
2	Si 251.611†	68725.9	68302.6	2526.4 ug/L	2526.4 ppb	23:20:15
2	Sn 189.927†	2203.4	2196.5	499.74 ug/L	499.74 ppb	23:20:35
2	Ti 334.940†	290340.0	291423.1	495.18 ug/L	495.18 ppb	23:20:15
2	Tl 190.801†	1267.6	1299.2	507.28 ug/L	507.28 ppb	23:20:35
2	U 409.014†	15759.4	17769.2	517.19 ug/L	517.19 ppb	23:20:15
2	V 292.402†	63181.1	64454.6	509.89 ug/L	509.89 ppb	23:20:15
2	Zn 213.857†	42242.7	41758.1	501.96 ug/L	501.96 ppb	23:20:15
2	SiO2†	69720.0	69271.0	5427.8 ug/L	5427.8 ppb	23:21:17
3	Sc Radial	3309.8	3309.8	98.8 %		23:19:32
3	Y RADIAL	2699.2	2699.2	98.40 %		23:19:32
3	Al 396.153Radial†	2256.5	2344.1	5013.8 ug/L	5013.8 ppb	23:19:12
3	Ca 317.933Radial†	1273.2	1278.6	5074.4 ug/L	5074.4 ppb	23:19:32
3	Fe 238.204 Radial†	189.3	183.0	5102.5 ug/L	5102.5 ppb	23:19:32
3	K 766.490 Radial†	12986.7	11031.5	5043.6 ug/L	5043.6 ppb	23:19:12
3	Mg 279.077 IEC†	56.5	56.8	5507.4 ug/L	5507.4 ppb	23:19:32
3	Na 589.592 Radial†	28108.5	29235.7	9763.4 ug/L	9763.4 ppb	23:19:12
3	Sr 421.552†	50883.6	51471.7	510.36 ug/L	510.36 ppb	23:19:12
3	Sc 361.383	846876.4	846876.4	101.45 %		23:20:41
3	Y 371.029	717542.7	717542.7	100.26 %		23:20:41
3	Ag 328.068†	101313.4	99703.0	506.84 ug/L	506.84 ppb	23:20:46
3	As 188.979†	885.1	888.4	498.10 ug/L	498.10 ppb	23:21:06
3	B 249.677†	17650.0	17487.4	487.93 ug/L	487.93 ppb	23:20:46
3	Ba 233.527†	54375.8	53604.1	501.89 ug/L	501.89 ppb	23:20:46
3	Be 313.107†	1171518.8	1158349.4	501.02 ug/L	501.02 ppb	23:20:41
3	Cd 226.502†	34925.4	34566.6	499.57 ug/L	499.57 ppb	23:20:46
3	Co 228.616†	19918.5	19676.7	510.38 ug/L	510.38 ppb	23:20:46
3	Cr 267.716†	38981.5	38357.4	501.03 ug/L	501.03 ppb	23:20:46
3	Cu 324.752†	163947.2	155528.2	500.50 ug/L	500.50 ppb	23:20:46
3	Mn 257.610†	385276.1	379367.4	497.41 ug/L	497.41 ppb	23:20:41
3	Mo 202.031†	5868.1	5770.2	498.50 ug/L	498.50 ppb	23:21:06
3	Ni 231.604†	16383.0	16095.3	507.00 ug/L	507.00 ppb	23:20:46
3	P 214.914†	3489.0	3263.6	2381.2 ug/L	2381.2 ppb	23:21:06
3	Pb 220.353†	3227.1	3224.8	500.76 ug/L	500.76 ppb	23:21:06
3	S 181.975 Axial†	596.4	557.0	992.59 ug/L	992.59 ppb	23:21:06
3	Sb 206.836†	1231.2	1185.1	508.96 ug/L	508.96 ppb	23:21:06
3	Se 196.026†	611.0	621.4	522.59 ug/L	522.59 ppb	23:21:06
3	Si 251.611†	69066.2	67624.4	2501.3 ug/L	2501.3 ppb	23:20:46
3	Sn 189.927†	2222.4	2182.7	496.60 ug/L	496.60 ppb	23:21:06
3	Ti 334.940†	292353.5	289125.8	491.23 ug/L	491.23 ppb	23:20:46
3	Tl 190.801†	1283.8	1296.5	506.18 ug/L	506.18 ppb	23:21:06
3	U 409.014†	15834.9	17611.2	512.59 ug/L	512.59 ppb	23:20:46
3	V 292.402†	63793.9	64126.8	507.27 ug/L	507.27 ppb	23:20:46
3	Zn 213.857†	42487.2	41376.1	497.37 ug/L	497.37 ppb	23:20:46
3	SiO2†	68979.4	67512.8	5289.8 ug/L	5289.8 ppb	23:21:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	840873.8	100.73	%	0.749				0.74%
Sc Radial	3280.9	97.9	%	1.08				1.10%
Y 371.029	711672.4	99.442	%	0.8294				0.83%
Y RADIAL	2672.4	97.42	%	1.199				1.23%
Ag 328.068†	99826.2	507.46	ug/L	2.734	507.46	ppb	2.734	0.54%
QC value within limits for Ag 328.068 Recovery = 101.49%								
Al 396.153Radial†	2336.0	4996.3	ug/L	51.72	4996.3	ppb	51.72	1.04%
QC value within limits for Al 396.153Radial Recovery = 99.93%								
As 188.979†	895.9	502.31	ug/L	3.647	502.31	ppb	3.647	0.73%
QC value within limits for As 188.979 Recovery = 100.46%								
B 249.677†	17503.9	488.39	ug/L	3.621	488.39	ppb	3.621	0.74%
QC value within limits for B 249.677 Recovery = 97.68%								
Ba 233.527†	53650.4	502.32	ug/L	2.258	502.32	ppb	2.258	0.45%
QC value within limits for Ba 233.527 Recovery = 100.46%								
Be 313.107†	1164732.6	503.78	ug/L	2.896	503.78	ppb	2.896	0.57%
QC value within limits for Be 313.107 Recovery = 100.76%								
Ca 317.933Radial†	1285.3	5100.9	ug/L	55.70	5100.9	ppb	55.70	1.09%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.02%
Cd 226.502†            34591.3      499.93 ug/L         1.991      499.93 ppb          1.991   0.40%
   QC value within limits for Cd 226.502  Recovery = 99.99%
Co 228.616†            19717.7      511.44 ug/L         2.474      511.44 ppb          2.474   0.48%
   QC value within limits for Co 228.616  Recovery = 102.29%
Cr 267.716†            38374.4      501.26 ug/L         2.330      501.26 ppb          2.330   0.46%
   QC value within limits for Cr 267.716  Recovery = 100.25%
Cu 324.752†           155916.8      501.75 ug/L         2.936      501.75 ppb          2.936   0.59%
   QC value within limits for Cu 324.752  Recovery = 100.35%
Fe 238.204 Radial†       182.5      5088.4 ug/L        89.53      5088.4 ppb         89.53   1.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.77%
K 766.490 Radial†      11021.2      5038.9 ug/L        75.39      5038.9 ppb         75.39   1.50%
   QC value within limits for K 766.490 Radial  Recovery = 100.78%
Mg 279.077 IEC†           53.9      5233.4 ug/L       240.02      5233.4 ppb        240.02   4.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.67%
Mn 257.610†           382495.6      501.52 ug/L         4.009      501.52 ppb          4.009   0.80%
   QC value within limits for Mn 257.610  Recovery = 100.30%
Mo 202.031†             5792.5      500.43 ug/L         2.701      500.43 ppb          2.701   0.54%
   QC value within limits for Mo 202.031  Recovery = 100.09%
Na 589.592 Radial†     29394.5      9816.5 ug/L       118.81      9816.5 ppb        118.81   1.21%
   QC value within limits for Na 589.592 Radial  Recovery = 98.16%
Ni 231.604†            16134.7      508.24 ug/L         1.975      508.24 ppb          1.975   0.39%
   QC value within limits for Ni 231.604  Recovery = 101.65%
P 214.914†              3283.2      2395.8 ug/L        13.94      2395.8 ppb         13.94   0.58%
   QC value within limits for P 214.914  Recovery = 95.83%
Pb 220.353†             3246.9      504.18 ug/L         2.967      504.18 ppb          2.967   0.59%
   QC value within limits for Pb 220.353  Recovery = 100.84%
S 181.975 Axial†         555.9      990.59 ug/L         2.734      990.59 ppb          2.734   0.28%
   QC value within limits for S 181.975 Axial  Recovery = 99.06%
Sb 206.836†             1202.0      516.05 ug/L         6.141      516.05 ppb          6.141   1.19%
   QC value within limits for Sb 206.836  Recovery = 103.21%
Se 196.026†              622.8      523.64 ug/L         5.994      523.64 ppb          5.994   1.14%
   QC value within limits for Se 196.026  Recovery = 104.73%
Si 251.611†            67857.6      2509.9 ug/L        14.26      2509.9 ppb         14.26   0.57%
   QC value within limits for Si 251.611  Recovery = 100.40%
Sn 189.927†             2193.3      499.00 ug/L         2.124      499.00 ppb          2.124   0.43%
   QC value within limits for Sn 189.927  Recovery = 99.80%
Sr 421.552†            51519.7      510.83 ug/L         5.799      510.83 ppb          5.799   1.14%
   QC value within limits for Sr 421.552  Recovery = 102.17%
Ti 334.940†           289636.0      492.12 ug/L         2.724      492.12 ppb          2.724   0.55%
   QC value within limits for Ti 334.940  Recovery = 98.42%
Tl 190.801†             1296.3      506.11 ug/L         1.214      506.11 ppb          1.214   0.24%
   QC value within limits for Tl 190.801  Recovery = 101.22%
U 409.014†             17658.2      513.96 ug/L         2.803      513.96 ppb          2.803   0.55%
   QC value within limits for U 409.014  Recovery = 102.79%
V 292.402†             64141.5      507.41 ug/L         2.407      507.41 ppb          2.407   0.47%
   QC value within limits for V 292.402  Recovery = 101.48%
Zn 213.857†            41502.2      498.89 ug/L         2.662      498.89 ppb          2.662   0.53%
   QC value within limits for Zn 213.857  Recovery = 99.78%
SiO2†                  68045.8      5331.6 ug/L        83.51      5331.6 ppb         83.51   1.57%
   QC value within limits for SiO2  Recovery = 99.70%
All analyte(s) passed QC.
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Sequence No.: 49
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/9/2010 23:23:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3275.6	3275.6	97.8	%			23:25:43
1	Y RADIAL	2685.2	2685.2	97.88	%			23:25:43
1	Al 396.153Radial†	-65.8	-7.3	-15.729	ug/L	-15.729	ppb	23:25:43
1	Ca 317.933Radial†	9.2	-0.8	-3.2989	ug/L	-3.2989	ppb	23:25:43
1	Fe 238.204 Radial†	7.9	-0.6	-15.512	ug/L	-15.512	ppb	23:25:43
1	K 766.490 Radial†	2068.1	0.9	0.4084	ug/L	0.4084	ppb	23:25:23
1	Mg 279.077 IEC†	1.8	1.4	137.50	ug/L	137.50	ppb	23:25:43
1	Na 589.592 Radial†	-763.0	2.2	0.7347	ug/L	0.7347	ppb	23:25:23
1	Sr 421.552†	25.6	-9.5	-0.0941	ug/L	-0.0941	ppb	23:25:23
1	Sc 361.383	812786.8	812786.8	97.369	%			23:26:40
1	Y 371.029	696362.7	696362.7	97.303	%			23:26:40
1	Ag 328.068†	141.0	-14.3	-0.0722	ug/L	-0.0722	ppb	23:26:40
1	As 188.979†	-15.8	-0.2	-0.1403	ug/L	-0.1403	ppb	23:27:00
1	B 249.677†	-264.2	-181.1	-5.0739	ug/L	-5.0739	ppb	23:27:00
1	Ba 233.527†	-8.6	-1.6	-0.0148	ug/L	-0.0148	ppb	23:27:00
1	Be 313.107†	-3518.2	-0.7	-0.0002	ug/L	-0.0002	ppb	23:26:40
1	Cd 226.502†	-153.5	-16.1	-0.2299	ug/L	-0.2299	ppb	23:27:00
1	Co 228.616†	-42.2	0.2	0.0050	ug/L	0.0050	ppb	23:27:00
1	Cr 267.716†	54.5	-9.8	-0.1261	ug/L	-0.1261	ppb	23:27:00
1	Cu 324.752†	6107.5	202.0	0.6512	ug/L	0.6512	ppb	23:26:40
1	Mn 257.610†	394.2	15.2	0.0127	ug/L	0.0127	ppb	23:27:00
1	Mo 202.031†	11.1	-2.3	-0.2018	ug/L	-0.2018	ppb	23:27:00
1	Ni 231.604†	113.6	63.6	2.0044	ug/L	2.0044	ppb	23:27:00
1	P 214.914†	168.6	-2.3	-1.8455	ug/L	-1.8455	ppb	23:27:00
1	Pb 220.353†	-48.0	-5.4	-0.8323	ug/L	-0.8323	ppb	23:27:00
1	S 181.975 Axial†	30.0	-0.1	-0.1486	ug/L	-0.1486	ppb	23:27:00
1	Sb 206.836†	22.8	-5.1	-2.0964	ug/L	-2.0964	ppb	23:27:00
1	Se 196.026†	-20.8	-2.1	-1.7516	ug/L	-1.7516	ppb	23:27:00
1	Si 251.611†	512.6	74.0	2.7460	ug/L	2.7460	ppb	23:27:00
1	Sn 189.927†	7.2	-0.4	-0.1004	ug/L	-0.1004	ppb	23:27:00
1	Ti 334.940†	-902.3	33.6	0.0469	ug/L	0.0469	ppb	23:26:40
1	Tl 190.801†	-19.8	10.8	4.1702	ug/L	4.1702	ppb	23:27:00
1	U 409.014†	-2058.4	-110.8	-3.2347	ug/L	-3.2347	ppb	23:26:40
1	V 292.402†	-1153.8	61.8	0.4784	ug/L	0.4784	ppb	23:26:40
1	Zn 213.857†	576.4	89.5	1.0748	ug/L	1.0748	ppb	23:27:00
1	SiO2†	512.9	48.3	3.7974	ug/L	3.7974	ppb	23:28:11
2	Sc Radial	3286.1	3286.1	98.1	%			23:26:08
2	Y RADIAL	2689.8	2689.8	98.05	%			23:26:08
2	Al 396.153Radial†	-65.3	-6.6	-14.098	ug/L	-14.098	ppb	23:26:08
2	Ca 317.933Radial†	6.8	-3.3	-13.106	ug/L	-13.106	ppb	23:26:08
2	Fe 238.204 Radial†	9.0	0.5	14.694	ug/L	14.694	ppb	23:26:08
2	K 766.490 Radial†	1939.6	-136.8	-62.627	ug/L	-62.627	ppb	23:25:48
2	Mg 279.077 IEC†	4.7	4.3	418.53	ug/L	418.53	ppb	23:26:08
2	Na 589.592 Radial†	-814.7	-48.0	-16.029	ug/L	-16.029	ppb	23:25:48
2	Sr 421.552†	5.1	-30.4	-0.3018	ug/L	-0.3018	ppb	23:25:48
2	Sc 361.383	820415.9	820415.9	98.283	%			23:27:05
2	Y 371.029	702619.9	702619.9	98.177	%			23:27:05
2	Ag 328.068†	145.0	-11.5	-0.0523	ug/L	-0.0523	ppb	23:27:05
2	As 188.979†	-27.0	-11.6	-6.4186	ug/L	-6.4186	ppb	23:27:25
2	B 249.677†	-239.4	-153.4	-4.3027	ug/L	-4.3027	ppb	23:27:25
2	Ba 233.527†	-0.9	6.3	0.0592	ug/L	0.0592	ppb	23:27:25
2	Be 313.107†	-3588.0	-38.1	-0.0167	ug/L	-0.0167	ppb	23:27:05
2	Cd 226.502†	-152.3	-13.4	-0.1942	ug/L	-0.1942	ppb	23:27:25
2	Co 228.616†	-34.6	8.3	0.2154	ug/L	0.2154	ppb	23:27:25
2	Cr 267.716†	74.2	9.8	0.1291	ug/L	0.1291	ppb	23:27:25
2	Cu 324.752†	6143.7	180.6	0.5828	ug/L	0.5828	ppb	23:27:05
2	Mn 257.610†	410.5	28.0	0.0211	ug/L	0.0211	ppb	23:27:25
2	Mo 202.031†	9.6	-4.0	-0.3429	ug/L	-0.3429	ppb	23:27:25
2	Ni 231.604†	103.9	52.7	1.6595	ug/L	1.6595	ppb	23:27:25

2	P 214.914†	184.6	12.4	9.2841	ug/L	9.2841 ppb	23:27:25
2	Pb 220.353†	-48.5	-5.4	-0.8467	ug/L	-0.8467 ppb	23:27:25
2	S 181.975 Axial†	30.1	-0.2	-0.4041	ug/L	-0.4041 ppb	23:27:25
2	Sb 206.836†	25.4	-2.6	-1.1165	ug/L	-1.1165 ppb	23:27:25
2	Se 196.026†	-15.6	3.4	2.7693	ug/L	2.7693 ppb	23:27:25
2	Si 251.611†	535.6	92.5	3.4343	ug/L	3.4343 ppb	23:27:25
2	Sn 189.927†	3.6	-4.2	-0.9464	ug/L	-0.9464 ppb	23:27:25
2	Ti 334.940†	-1007.0	-64.3	-0.1446	ug/L	-0.1446 ppb	23:27:05
2	Tl 190.801†	-29.4	1.1	0.4441	ug/L	0.4441 ppb	23:27:25
2	U 409.014†	-2021.1	-53.2	-1.5560	ug/L	-1.5560 ppb	23:27:05
2	V 292.402†	-1226.4	-1.1	-0.0105	ug/L	-0.0105 ppb	23:27:05
2	Zn 213.857†	574.2	81.8	0.9789	ug/L	0.9789 ppb	23:27:25
2	SiO2†	566.4	97.8	7.6930	ug/L	7.6930 ppb	23:28:31
3	Sc Radial	3286.6	3286.6	98.1	%		23:26:33
3	Y RADIAL	2699.0	2699.0	98.39	%		23:26:33
3	Al 396.153Radial†	-70.4	-11.7	-25.258	ug/L	-25.258 ppb	23:26:33
3	Ca 317.933Radial†	5.5	-4.7	-18.461	ug/L	-18.461 ppb	23:26:33
3	Fe 238.204 Radial†	9.4	0.9	24.981	ug/L	24.981 ppb	23:26:33
3	K 766.490 Radial†	2081.7	7.7	3.5381	ug/L	3.5381 ppb	23:26:13
3	Mg 279.077 IEC†	2.5	2.1	199.73	ug/L	199.73 ppb	23:26:33
3	Na 589.592 Radial†	-800.9	-33.8	-11.293	ug/L	-11.293 ppb	23:26:13
3	Sr 421.552†	15.6	-19.8	-0.1958	ug/L	-0.1958 ppb	23:26:13
3	Sc 361.383	895549.4	895549.4	107.28	%		23:27:30
3	Y 371.029	766753.8	766753.8	107.14	%		23:27:30
3	Ag 328.068†	188.1	16.3	0.0874	ug/L	0.0874 ppb	23:27:30
3	As 188.979†	-20.0	-2.7	-1.5052	ug/L	-1.5052 ppb	23:27:50
3	B 249.677†	-262.6	-154.5	-4.3360	ug/L	-4.3360 ppb	23:27:50
3	Ba 233.527†	1.9	9.0	0.0863	ug/L	0.0863 ppb	23:27:50
3	Be 313.107†	-3483.1	366.0	0.1584	ug/L	0.1584 ppb	23:27:30
3	Cd 226.502†	-135.6	15.2	0.2199	ug/L	0.2199 ppb	23:27:50
3	Co 228.616†	-49.3	-2.4	-0.0610	ug/L	-0.0610 ppb	23:27:50
3	Cr 267.716†	60.1	-9.7	-0.1273	ug/L	-0.1273 ppb	23:27:50
3	Cu 324.752†	6095.2	-389.1	-1.2551	ug/L	-1.2551 ppb	23:27:30
3	Mn 257.610†	374.9	-40.2	-0.0584	ug/L	-0.0584 ppb	23:27:50
3	Mo 202.031†	20.8	5.6	0.4868	ug/L	0.4868 ppb	23:27:50
3	Ni 231.604†	110.3	49.8	1.5698	ug/L	1.5698 ppb	23:27:50
3	P 214.914†	170.3	-16.7	-12.443	ug/L	-12.443 ppb	23:27:50
3	Pb 220.353†	-45.8	1.2	0.1823	ug/L	0.1823 ppb	23:27:50
3	S 181.975 Axial†	29.6	-3.3	-5.7935	ug/L	-5.7935 ppb	23:27:50
3	Sb 206.836†	23.1	-7.0	-2.8900	ug/L	-2.8900 ppb	23:27:50
3	Se 196.026†	-23.2	-2.4	-1.9287	ug/L	-1.9287 ppb	23:27:50
3	Si 251.611†	522.3	34.5	1.2714	ug/L	1.2714 ppb	23:27:50
3	Sn 189.927†	4.7	-3.4	-0.7866	ug/L	-0.7866 ppb	23:27:50
3	Ti 334.940†	-898.0	123.2	0.1872	ug/L	0.1872 ppb	23:27:30
3	Tl 190.801†	-28.5	4.5	1.7452	ug/L	1.7452 ppb	23:27:50
3	U 409.014†	-1863.7	266.0	7.7660	ug/L	7.7660 ppb	23:27:30
3	V 292.402†	-1216.3	113.1	0.9043	ug/L	0.9043 ppb	23:27:30
3	Zn 213.857†	566.5	25.6	0.2984	ug/L	0.2984 ppb	23:27:50
3	SiO2†	497.7	-14.6	-1.1605	ug/L	-1.1605 ppb	23:28:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842917.4	100.98	%	5.480				5.43%
Sc Radial	3282.8	98.0	%	0.19				0.19%
Y 371.029	721912.1	100.87	%	5.444				5.40%
Y RADIAL	2691.3	98.11	%	0.255				0.26%
Ag 328.068†	-3.2	-0.0124	ug/L	0.08698	-0.0124	ppb	0.08698	702.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.5	-18.362	ug/L	6.0279	-18.362	ppb	6.0279	32.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.8	-2.6880	ug/L	3.30210	-2.6880	ppb	3.30210	122.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-163.0	-4.5709	ug/L	0.43597	-4.5709	ppb	0.43597	9.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.5	0.0436	ug/L	0.05234	0.0436	ppb	0.05234	120.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	109.0	0.0472	ug/L	0.09669	0.0472	ppb	0.09669	204.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.9	-11.622	ug/L	7.6892	-11.622	ppb	7.6892	66.16%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -4.7     -0.0680 ug/L       0.25002     -0.0680 ppb        0.25002 367.45%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               2.1      0.0531 ug/L       0.14435      0.0531 ppb        0.14435 271.60%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.2     -0.0414 ug/L       0.14765     -0.0414 ppb        0.14765 356.41%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -2.1     -0.0070 ug/L       1.08137     -0.0070 ppb        1.08137 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      8.0543 ug/L      21.04749      8.0543 ppb       21.04749 261.32%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -42.7     -19.560 ug/L       37.3297     -19.560 ppb        37.3297 190.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.6      251.92 ug/L      147.604      251.92 ppb        147.604  58.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               1.0     -0.0082 ug/L       0.04366     -0.0082 ppb        0.04366 533.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.2     -0.0193 ug/L       0.44392     -0.0193 ppb        0.44392 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -26.5     -8.8626 ug/L       8.64215     -8.8626 ppb        8.64215  97.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              55.4      1.7445 ug/L       0.22946      1.7445 ppb        0.22946  13.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.2     -1.6682 ug/L      10.86484     -1.6682 ppb       10.86484 651.27%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -3.2     -0.4989 ug/L       0.58997     -0.4989 ppb        0.58997 118.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.2     -2.1154 ug/L       3.18792     -2.1154 ppb        3.18792 150.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.9     -2.0343 ug/L       0.88838     -2.0343 ppb        0.88838  43.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.4     -0.3037 ug/L       2.66276     -0.3037 ppb        2.66276 876.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              67.0      2.4839 ug/L       1.10501      2.4839 ppb        1.10501  44.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.7     -0.6111 ug/L       0.44944     -0.6111 ppb        0.44944  73.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -19.9     -0.1972 ug/L       0.10387     -0.1972 ppb        0.10387  52.67%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              30.8      0.0298 ug/L       0.16660      0.0298 ppb        0.16660 558.56%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      2.1198 ug/L       1.89108      2.1198 ppb        1.89108  89.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               34.0      0.9918 ug/L       5.92639      0.9918 ppb        5.92639 597.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               57.9      0.4574 ug/L       0.45775      0.4574 ppb        0.45775 100.08%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              65.6      0.7840 ug/L       0.42328      0.7840 ppb        0.42328  53.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    43.8      3.4433 ug/L       4.43736      3.4433 ppb        4.43736 128.87%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 58
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/10/2010 00:27:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3349.4	3349.4	100.0	%			00:29:16
1	Y RADIAL	2723.1	2723.1	99.26	%			00:29:16
1	Al 396.153Radial†	2313.3	2374.0	5079.2	ug/L	5079.2	ppb	00:28:56
1	Ca 317.933Radial†	1280.8	1270.9	5043.8	ug/L	5043.8	ppb	00:29:16
1	Fe 238.204 Radial†	190.1	181.5	5059.1	ug/L	5059.1	ppb	00:29:16
1	K 766.490 Radial†	13037.3	10926.9	4995.6	ug/L	4995.6	ppb	00:28:56
1	Mg 279.077 IEC†	54.8	54.4	5280.1	ug/L	5280.1	ppb	00:29:16
1	Na 589.592 Radial†	29690.6	30482.3	10180	ug/L	10180	ppb	00:28:56
1	Sr 421.552†	52895.1	52875.7	524.28	ug/L	524.28	ppb	00:28:56
1	Sc 361.383	886391.6	886391.6	106.19	%			00:30:13
1	Y 371.029	749522.8	749522.8	104.73	%			00:30:13
1	Ag 328.068†	100885.2	94847.9	482.22	ug/L	482.22	ppb	00:30:18
1	As 188.979†	887.8	852.0	477.75	ug/L	477.75	ppb	00:30:38
1	B 249.677†	17716.9	16774.8	468.03	ug/L	468.03	ppb	00:30:18
1	Ba 233.527†	54229.9	51077.4	478.24	ug/L	478.24	ppb	00:30:18
1	Be 313.107†	1149757.1	1086377.7	469.91	ug/L	469.91	ppb	00:30:13
1	Cd 226.502†	34872.7	32982.4	476.66	ug/L	476.66	ppb	00:30:18
1	Co 228.616†	19849.8	18736.8	485.99	ug/L	485.99	ppb	00:30:18
1	Cr 267.716†	38837.4	36508.7	476.89	ug/L	476.89	ppb	00:30:18
1	Cu 324.752†	163598.1	147995.4	476.27	ug/L	476.27	ppb	00:30:18
1	Mn 257.610†	379296.0	356806.2	467.85	ug/L	467.85	ppb	00:30:13
1	Mo 202.031†	5850.5	5495.8	474.82	ug/L	474.82	ppb	00:30:38
1	Ni 231.604†	16362.8	15356.4	483.73	ug/L	483.73	ppb	00:30:18
1	P 214.914†	3500.9	3121.5	2277.9	ug/L	2277.9	ppb	00:30:38
1	Pb 220.353†	3225.4	3081.4	478.52	ug/L	478.52	ppb	00:30:38
1	S 181.975 Axial†	594.4	528.9	942.42	ug/L	942.42	ppb	00:30:38
1	Sb 206.836†	1249.3	1148.1	492.80	ug/L	492.80	ppb	00:30:38
1	Se 196.026†	601.4	585.6	493.24	ug/L	493.24	ppb	00:30:38
1	Si 251.611†	69378.0	64883.2	2399.9	ug/L	2399.9	ppb	00:30:18
1	Sn 189.927†	2223.6	2086.2	474.66	ug/L	474.66	ppb	00:30:38
1	Ti 334.940†	291543.3	275516.5	468.13	ug/L	468.13	ppb	00:30:18
1	Tl 190.801†	1279.7	1236.2	482.61	ug/L	482.61	ppb	00:30:38
1	U 409.014†	15903.7	16980.2	494.22	ug/L	494.22	ppb	00:30:18
1	V 292.402†	63561.2	61104.5	483.34	ug/L	483.34	ppb	00:30:18
1	Zn 213.857†	42469.1	39492.1	474.69	ug/L	474.69	ppb	00:30:18
1	SiO2†	69230.9	64718.6	5071.0	ug/L	5071.0	ppb	00:31:46
2	Sc Radial	3073.9	3073.9	91.7	%			00:29:41
2	Y RADIAL	2499.7	2499.7	91.12	%			00:29:41
2	Al 396.153Radial†	2272.8	2537.2	5428.4	ug/L	5428.4	ppb	00:29:21
2	Ca 317.933Radial†	1287.7	1393.4	5529.7	ug/L	5529.7	ppb	00:29:41
2	Fe 238.204 Radial†	193.7	202.4	5642.7	ug/L	5642.7	ppb	00:29:41
2	K 766.490 Radial†	13000.7	12055.9	5511.9	ug/L	5511.9	ppb	00:29:21
2	Mg 279.077 IEC†	57.0	61.7	5984.8	ug/L	5984.8	ppb	00:29:41
2	Na 589.592 Radial†	29590.6	33035.2	11032	ug/L	11032	ppb	00:29:21
2	Sr 421.552†	52727.0	57434.8	569.49	ug/L	569.49	ppb	00:29:21
2	Sc 361.383	833559.2	833559.2	99.858	%			00:30:44
2	Y 371.029	704752.7	704752.7	98.475	%			00:30:44
2	Ag 328.068†	100893.4	100877.8	512.96	ug/L	512.96	ppb	00:30:49
2	As 188.979†	894.1	911.4	511.07	ug/L	511.07	ppb	00:31:09
2	B 249.677†	17711.1	17826.5	497.32	ug/L	497.32	ppb	00:30:49
2	Ba 233.527†	54231.4	54315.7	508.57	ug/L	508.57	ppb	00:30:49
2	Be 313.107†	1176721.7	1182008.0	511.25	ug/L	511.25	ppb	00:30:44
2	Cd 226.502†	35024.4	35215.8	508.91	ug/L	508.91	ppb	00:30:49
2	Co 228.616†	19957.6	20029.5	519.52	ug/L	519.52	ppb	00:30:49
2	Cr 267.716†	39095.8	39085.7	510.56	ug/L	510.56	ppb	00:30:49
2	Cu 324.752†	163510.9	157673.0	507.43	ug/L	507.43	ppb	00:30:49
2	Mn 257.610†	389137.7	389301.6	510.46	ug/L	510.46	ppb	00:30:44
2	Mo 202.031†	5878.8	5873.4	507.46	ug/L	507.46	ppb	00:31:09
2	Ni 231.604†	16432.2	16402.5	516.68	ug/L	516.68	ppb	00:30:49

2	P 214.914†	3500.6	3330.2	2430.1 ug/L	2430.1 ppb	00:31:09
2	Pb 220.353†	3250.8	3299.4	512.34 ug/L	512.34 ppb	00:31:09
2	S 181.975 Axial†	591.8	561.8	1001.1 ug/L	1001.1 ppb	00:31:09
2	Sb 206.836†	1249.8	1223.1	525.03 ug/L	525.03 ppb	00:31:09
2	Se 196.026†	603.4	623.5	525.92 ug/L	525.92 ppb	00:31:09
2	Si 251.611†	69262.4	68908.5	2548.8 ug/L	2548.8 ppb	00:30:49
2	Sn 189.927†	2222.1	2217.4	504.52 ug/L	504.52 ppb	00:31:09
2	Ti 334.940†	292303.4	293679.4	498.98 ug/L	498.98 ppb	00:30:49
2	Tl 190.801†	1285.3	1318.2	514.65 ug/L	514.65 ppb	00:31:09
2	U 409.014†	15862.4	17888.1	520.59 ug/L	520.59 ppb	00:30:49
2	V 292.402†	63769.3	65106.7	514.98 ug/L	514.98 ppb	00:30:49
2	Zn 213.857†	42612.3	42170.5	506.85 ug/L	506.85 ppb	00:30:49
2	SiO2†	68867.3	68486.8	5366.1 ug/L	5366.1 ppb	00:31:51
3	Sc Radial	3303.5	3303.5	98.6 %		00:30:06
3	Y RADIAL	2689.1	2689.1	98.03 %		00:30:06
3	Al 396.153Radial†	2285.1	2377.6	5085.6 ug/L	5085.6 ppb	00:29:46
3	Ca 317.933Radial†	1280.6	1288.5	5113.7 ug/L	5113.7 ppb	00:30:06
3	Fe 238.204 Radial†	195.3	189.4	5280.6 ug/L	5280.6 ppb	00:30:06
3	K 766.490 Radial†	12937.0	11006.4	5032.0 ug/L	5032.0 ppb	00:29:46
3	Mg 279.077 IEC†	55.6	55.9	5425.0 ug/L	5425.0 ppb	00:30:06
3	Na 589.592 Radial†	29313.4	30512.6	10190 ug/L	10190 ppb	00:29:46
3	Sr 421.552†	52438.3	53147.9	526.98 ug/L	526.98 ppb	00:29:46
3	Sc 361.383	838920.7	838920.7	100.50 %		00:31:15
3	Y 371.029	708657.8	708657.8	99.021 %		00:31:15
3	Ag 328.068†	99932.0	99275.5	504.73 ug/L	504.73 ppb	00:31:20
3	As 188.979†	885.3	896.9	502.86 ug/L	502.86 ppb	00:31:40
3	B 249.677†	17404.4	17408.0	485.67 ug/L	485.67 ppb	00:31:20
3	Ba 233.527†	53829.3	53568.5	501.56 ug/L	501.56 ppb	00:31:20
3	Be 313.107†	1182605.9	1180332.0	510.51 ug/L	510.51 ppb	00:31:15
3	Cd 226.502†	34647.2	34616.4	500.27 ug/L	500.27 ppb	00:31:20
3	Co 228.616†	19769.0	19714.2	511.35 ug/L	511.35 ppb	00:31:20
3	Cr 267.716†	38664.4	38406.2	501.68 ug/L	501.68 ppb	00:31:20
3	Cu 324.752†	161792.4	154916.7	498.54 ug/L	498.54 ppb	00:31:20
3	Mn 257.610†	390921.1	388585.6	509.51 ug/L	509.51 ppb	00:31:15
3	Mo 202.031†	5850.7	5807.8	501.76 ug/L	501.76 ppb	00:31:40
3	Ni 231.604†	16337.7	16203.3	510.40 ug/L	510.40 ppb	00:31:20
3	P 214.914†	3483.2	3290.5	2401.9 ug/L	2401.9 ppb	00:31:40
3	Pb 220.353†	3220.7	3248.6	504.44 ug/L	504.44 ppb	00:31:40
3	S 181.975 Axial†	595.1	561.3	1000.1 ug/L	1000.1 ppb	00:31:40
3	Sb 206.836†	1239.9	1205.2	517.44 ug/L	517.44 ppb	00:31:40
3	Se 196.026†	603.2	619.4	521.46 ug/L	521.46 ppb	00:31:40
3	Si 251.611†	68642.5	67848.4	2509.5 ug/L	2509.5 ppb	00:31:20
3	Sn 189.927†	2218.7	2199.8	500.48 ug/L	500.48 ppb	00:31:40
3	Ti 334.940†	289419.7	288939.4	490.92 ug/L	490.92 ppb	00:31:20
3	Tl 190.801†	1282.2	1306.8	510.24 ug/L	510.24 ppb	00:31:40
3	U 409.014†	15713.0	17638.0	513.35 ug/L	513.35 ppb	00:31:20
3	V 292.402†	63080.4	64013.1	506.40 ug/L	506.40 ppb	00:31:20
3	Zn 213.857†	42212.2	41499.6	498.82 ug/L	498.82 ppb	00:31:20
3	SiO2†	69501.7	68677.3	5381.2 ug/L	5381.2 ppb	00:31:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852957.2	102.18	%	3.484				3.41%
Sc Radial	3242.2	96.8	%	4.41				4.55%
Y 371.029	720977.8	100.74	%	3.465				3.44%
Y RADIAL	2637.3	96.14	%	4.388				4.56%
Ag 328.068†	98333.8	499.97	ug/L	15.915	499.97	ppb	15.915	3.18%
QC value within limits for Ag 328.068 Recovery = 99.99%								
Al 396.153Radial†	2429.6	5197.7	ug/L	199.76	5197.7	ppb	199.76	3.84%
QC value within limits for Al 396.153Radial Recovery = 103.95%								
As 188.979†	886.8	497.23	ug/L	17.360	497.23	ppb	17.360	3.49%
QC value within limits for As 188.979 Recovery = 99.45%								
B 249.677†	17336.5	483.67	ug/L	14.747	483.67	ppb	14.747	3.05%
QC value within limits for B 249.677 Recovery = 96.73%								
Ba 233.527†	52987.2	496.12	ug/L	15.880	496.12	ppb	15.880	3.20%
QC value within limits for Ba 233.527 Recovery = 99.22%								
Be 313.107†	1149572.6	497.22	ug/L	23.657	497.22	ppb	23.657	4.76%
QC value within limits for Be 313.107 Recovery = 99.44%								
Ca 317.933Radial†	1317.6	5229.1	ug/L	262.68	5229.1	ppb	262.68	5.02%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.58%
Cd 226.502†            34271.5      495.28 ug/L        16.696      495.28 ppb         16.696   3.37%
   QC value within limits for Cd 226.502  Recovery = 99.06%
Co 228.616†            19493.5      505.62 ug/L        17.484      505.62 ppb         17.484   3.46%
   QC value within limits for Co 228.616  Recovery = 101.12%
Cr 267.716†            38000.2      496.38 ug/L        17.449      496.38 ppb         17.449   3.52%
   QC value within limits for Cr 267.716  Recovery = 99.28%
Cu 324.752†           153528.4      494.08 ug/L        16.052      494.08 ppb         16.052   3.25%
   QC value within limits for Cu 324.752  Recovery = 98.82%
Fe 238.204 Radial†       191.1      5327.5 ug/L       294.62      5327.5 ppb         294.62   5.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.55%
K 766.490 Radial†      11329.8      5179.8 ug/L       288.14      5179.8 ppb         288.14   5.56%
   QC value within limits for K 766.490 Radial  Recovery = 103.60%
Mg 279.077 IEC†           57.3      5563.3 ug/L       372.16      5563.3 ppb         372.16   6.69%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 111.27%
Mn 257.610†           378231.1      495.94 ug/L        24.332      495.94 ppb         24.332   4.91%
   QC value within limits for Mn 257.610  Recovery = 99.19%
Mo 202.031†             5725.7      494.68 ug/L        17.435      494.68 ppb         17.435   3.52%
   QC value within limits for Mo 202.031  Recovery = 98.94%
Na 589.592 Radial†     31343.4       10467 ug/L         489.3       10467 ppb          489.3   4.67%
   QC value within limits for Na 589.592 Radial  Recovery = 104.67%
Ni 231.604†            15987.4      503.60 ug/L        17.497      503.60 ppb         17.497   3.47%
   QC value within limits for Ni 231.604  Recovery = 100.72%
P 214.914†              3247.4      2370.0 ug/L         80.97      2370.0 ppb          80.97   3.42%
   QC value within limits for P 214.914  Recovery = 94.80%
Pb 220.353†             3209.8      498.44 ug/L        17.693      498.44 ppb         17.693   3.55%
   QC value within limits for Pb 220.353  Recovery = 99.69%
S 181.975 Axial†         550.7      981.21 ug/L        33.589      981.21 ppb         33.589   3.42%
   QC value within limits for S 181.975 Axial  Recovery = 98.12%
Sb 206.836†             1192.1      511.76 ug/L        16.852      511.76 ppb         16.852   3.29%
   QC value within limits for Sb 206.836  Recovery = 102.35%
Se 196.026†              609.5      513.54 ug/L        17.721      513.54 ppb         17.721   3.45%
   QC value within limits for Se 196.026  Recovery = 102.71%
Si 251.611†            67213.4      2486.1 ug/L         77.15      2486.1 ppb          77.15   3.10%
   QC value within limits for Si 251.611  Recovery = 99.44%
Sn 189.927†             2167.8      493.22 ug/L        16.200      493.22 ppb         16.200   3.28%
   QC value within limits for Sn 189.927  Recovery = 98.64%
Sr 421.552†            54486.1      540.25 ug/L        25.356      540.25 ppb         25.356   4.69%
   QC value within limits for Sr 421.552  Recovery = 108.05%
Ti 334.940†           286045.1      486.01 ug/L        16.003      486.01 ppb         16.003   3.29%
   QC value within limits for Ti 334.940  Recovery = 97.20%
Tl 190.801†             1287.1      502.50 ug/L        17.369      502.50 ppb         17.369   3.46%
   QC value within limits for Tl 190.801  Recovery = 100.50%
U 409.014†             17502.1      509.39 ug/L        13.624      509.39 ppb         13.624   2.67%
   QC value within limits for U 409.014  Recovery = 101.88%
V 292.402†             63408.1      501.58 ug/L        16.362      501.58 ppb         16.362   3.26%
   QC value within limits for V 292.402  Recovery = 100.32%
Zn 213.857†            41054.1      493.45 ug/L        16.737      493.45 ppb         16.737   3.39%
   QC value within limits for Zn 213.857  Recovery = 98.69%
SiO2†                  67294.2      5272.8 ug/L       174.91      5272.8 ppb         174.91   3.32%
   QC value within limits for SiO2  Recovery = 98.60%
QC Failed.  Continue with analysis.
```

Sequence No.: 59 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/10/2010 00:34:06**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3367.3	3367.3	101	%			00:36:17
1	Y RADIAL	2740.0	2740.0	99.88	%			00:36:17
1	Al 396.153Radial†	-64.6	-4.2	-9.0743	ug/L	-9.0743	ppb	00:36:17
1	Ca 317.933Radial†	10.1	-0.2	-0.7609	ug/L	-0.7609	ppb	00:36:17
1	Fe 238.204 Radial†	7.2	-1.4	-40.176	ug/L	-40.176	ppb	00:36:17
1	K 766.490 Radial†	2050.9	-73.9	-33.802	ug/L	-33.802	ppb	00:35:57
1	Mg 279.077 IEC†	-1.6	-2.0	-196.14	ug/L	-196.14	ppb	00:36:17
1	Na 589.592 Radial†	-821.5	-34.8	-11.622	ug/L	-11.622	ppb	00:35:57
1	Sr 421.552†	19.0	-16.8	-0.1667	ug/L	-0.1667	ppb	00:35:57
1	Sc 361.383	825399.4	825399.4	98.880	%			00:37:14
1	Y 371.029	708028.8	708028.8	98.933	%			00:37:14
1	Ag 328.068†	143.1	-14.3	-0.0809	ug/L	-0.0809	ppb	00:37:14
1	As 188.979†	-18.8	-3.1	-1.7097	ug/L	-1.7097	ppb	00:37:34
1	B 249.677†	-188.0	-99.9	-2.7938	ug/L	-2.7938	ppb	00:37:34
1	Ba 233.527†	0.6	7.8	0.0714	ug/L	0.0714	ppb	00:37:34
1	Be 313.107†	-3567.7	4.4	0.0019	ug/L	0.0019	ppb	00:37:14
1	Cd 226.502†	-155.7	-15.9	-0.2260	ug/L	-0.2260	ppb	00:37:34
1	Co 228.616†	-42.7	0.4	0.0098	ug/L	0.0098	ppb	00:37:34
1	Cr 267.716†	86.2	21.5	0.2805	ug/L	0.2805	ppb	00:37:34
1	Cu 324.752†	6004.7	2.2	0.0077	ug/L	0.0077	ppb	00:37:14
1	Mn 257.610†	419.6	34.7	0.0495	ug/L	0.0495	ppb	00:37:34
1	Mo 202.031†	9.6	-4.0	-0.3522	ug/L	-0.3522	ppb	00:37:34
1	Ni 231.604†	109.9	58.1	1.8302	ug/L	1.8302	ppb	00:37:34
1	P 214.914†	166.1	-7.4	-5.6398	ug/L	-5.6398	ppb	00:37:34
1	Pb 220.353†	-26.5	17.2	2.6609	ug/L	2.6609	ppb	00:37:34
1	S 181.975 Axial†	30.0	-0.6	-0.9863	ug/L	-0.9863	ppb	00:37:34
1	Sb 206.836†	27.7	-0.5	-0.2251	ug/L	-0.2251	ppb	00:37:34
1	Se 196.026†	-15.8	3.2	2.5113	ug/L	2.5113	ppb	00:37:34
1	Si 251.611†	572.0	126.0	4.6776	ug/L	4.6776	ppb	00:37:34
1	Sn 189.927†	2.9	-4.9	-1.1011	ug/L	-1.1011	ppb	00:37:34
1	Ti 334.940†	-953.0	-3.6	0.0118	ug/L	0.0118	ppb	00:37:14
1	Tl 190.801†	-26.7	4.1	1.5927	ug/L	1.5927	ppb	00:37:34
1	U 409.014†	-2140.6	-161.7	-4.7168	ug/L	-4.7168	ppb	00:37:14
1	V 292.402†	-1231.1	1.8	0.0017	ug/L	0.0017	ppb	00:37:14
1	Zn 213.857†	604.9	109.3	1.3208	ug/L	1.3208	ppb	00:37:34
1	SiO2†	575.7	103.7	8.1580	ug/L	8.1580	ppb	00:38:45
2	Sc Radial	3294.7	3294.7	98.3	%			00:36:42
2	Y RADIAL	2694.3	2694.3	98.22	%			00:36:42
2	Al 396.153Radial†	-69.3	-10.5	-22.525	ug/L	-22.525	ppb	00:36:42
2	Ca 317.933Radial†	11.1	1.1	4.4103	ug/L	4.4103	ppb	00:36:42
2	Fe 238.204 Radial†	9.7	1.2	33.283	ug/L	33.283	ppb	00:36:42
2	K 766.490 Radial†	2062.2	-17.3	-7.9246	ug/L	-7.9246	ppb	00:36:22
2	Mg 279.077 IEC†	4.2	3.8	370.22	ug/L	370.22	ppb	00:36:42
2	Na 589.592 Radial†	-767.8	1.8	0.5888	ug/L	0.5888	ppb	00:36:22
2	Sr 421.552†	37.6	2.6	0.0254	ug/L	0.0254	ppb	00:36:22
2	Sc 361.383	834803.8	834803.8	100.01	%			00:37:39
2	Y 371.029	714031.8	714031.8	99.772	%			00:37:39
2	Ag 328.068†	200.9	41.8	0.2248	ug/L	0.2248	ppb	00:37:39
2	As 188.979†	-19.2	-3.3	-1.8095	ug/L	-1.8095	ppb	00:37:59
2	B 249.677†	-174.8	-84.5	-2.3752	ug/L	-2.3752	ppb	00:37:59
2	Ba 233.527†	-6.8	0.3	0.0049	ug/L	0.0049	ppb	00:37:59
2	Be 313.107†	-3578.9	33.9	0.0146	ug/L	0.0146	ppb	00:37:39
2	Cd 226.502†	-145.5	-4.0	-0.0600	ug/L	-0.0600	ppb	00:37:59
2	Co 228.616†	-41.8	1.8	0.0451	ug/L	0.0451	ppb	00:37:59
2	Cr 267.716†	52.4	-13.3	-0.1706	ug/L	-0.1706	ppb	00:37:59
2	Cu 324.752†	6011.2	-59.7	-0.1892	ug/L	-0.1892	ppb	00:37:39
2	Mn 257.610†	432.8	43.1	0.0446	ug/L	0.0446	ppb	00:37:59
2	Mo 202.031†	7.7	-6.1	-0.5236	ug/L	-0.5236	ppb	00:37:59
2	Ni 231.604†	105.1	52.1	1.6415	ug/L	1.6415	ppb	00:37:59

2	P 214.914†	174.6	-0.8	-0.6049	ug/L	-0.6049 ppb	00:37:59
2	Pb 220.353†	-38.8	5.2	0.7904	ug/L	0.7904 ppb	00:37:59
2	S 181.975 Axial†	27.4	-3.4	-6.0950	ug/L	-6.0950 ppb	00:37:59
2	Sb 206.836†	24.6	-3.9	-1.6013	ug/L	-1.6013 ppb	00:37:59
2	Se 196.026†	-14.2	5.0	4.1807	ug/L	4.1807 ppb	00:37:59
2	Si 251.611†	567.7	115.3	4.2817	ug/L	4.2817 ppb	00:37:59
2	Sn 189.927†	15.4	7.6	1.7179	ug/L	1.7179 ppb	00:37:59
2	Ti 334.940†	-959.0	1.4	-0.0263	ug/L	-0.0263 ppb	00:37:39
2	Tl 190.801†	-32.7	-1.6	-0.6263	ug/L	-0.6263 ppb	00:37:59
2	U 409.014†	-2080.4	-77.1	-2.2558	ug/L	-2.2558 ppb	00:37:39
2	V 292.402†	-1200.1	46.7	0.3553	ug/L	0.3553 ppb	00:37:39
2	Zn 213.857†	592.7	90.2	1.0792	ug/L	1.0792 ppb	00:37:59
2	SiO2†	581.6	103.1	8.1122	ug/L	8.1122 ppb	00:39:05
3	Sc Radial	3317.5	3317.5	99.0	%		00:37:07
3	Y RADIAL	2706.9	2706.9	98.68	%		00:37:07
3	Al 396.153Radial†	-71.3	-12.0	-25.795	ug/L	-25.795 ppb	00:37:07
3	Ca 317.933Radial†	14.0	3.9	15.559	ug/L	15.559 ppb	00:37:07
3	Fe 238.204 Radial†	7.5	-1.1	-29.405	ug/L	-29.405 ppb	00:37:07
3	K 766.490 Radial†	2139.7	46.5	21.290	ug/L	21.290 ppb	00:36:47
3	Mg 279.077 IEC†	1.1	0.7	65.454	ug/L	65.454 ppb	00:37:07
3	Na 589.592 Radial†	-801.2	-26.5	-8.8564	ug/L	-8.8564 ppb	00:36:47
3	Sr 421.552†	4.7	-30.9	-0.3064	ug/L	-0.3064 ppb	00:36:47
3	Sc 361.383	830530.9	830530.9	99.495	%		00:38:05
3	Y 371.029	710480.0	710480.0	99.276	%		00:38:05
3	Ag 328.068†	194.4	36.4	0.1722	ug/L	0.1722 ppb	00:38:05
3	As 188.979†	-21.1	-5.3	-2.9324	ug/L	-2.9324 ppb	00:38:25
3	B 249.677†	-202.5	-113.3	-3.1712	ug/L	-3.1712 ppb	00:38:25
3	Ba 233.527†	0.1	7.3	0.0673	ug/L	0.0673 ppb	00:38:25
3	Be 313.107†	-3603.0	-8.7	-0.0037	ug/L	-0.0037 ppb	00:38:05
3	Cd 226.502†	-146.3	-5.4	-0.0738	ug/L	-0.0738 ppb	00:38:25
3	Co 228.616†	-43.6	-0.3	-0.0063	ug/L	-0.0063 ppb	00:38:25
3	Cr 267.716†	68.6	3.3	0.0402	ug/L	0.0402 ppb	00:38:25
3	Cu 324.752†	6015.5	-24.4	-0.0816	ug/L	-0.0816 ppb	00:38:05
3	Mn 257.610†	445.2	57.8	0.0702	ug/L	0.0702 ppb	00:38:25
3	Mo 202.031†	13.0	-0.7	-0.0592	ug/L	-0.0592 ppb	00:38:25
3	Ni 231.604†	106.7	54.2	1.7080	ug/L	1.7080 ppb	00:38:25
3	P 214.914†	172.8	-1.7	-1.2792	ug/L	-1.2792 ppb	00:38:25
3	Pb 220.353†	-40.1	3.6	0.5584	ug/L	0.5584 ppb	00:38:25
3	S 181.975 Axial†	24.0	-6.7	-11.959	ug/L	-11.959 ppb	00:38:25
3	Sb 206.836†	24.8	-3.6	-1.4732	ug/L	-1.4732 ppb	00:38:25
3	Se 196.026†	-16.7	2.4	1.8653	ug/L	1.8653 ppb	00:38:25
3	Si 251.611†	582.3	132.8	4.9260	ug/L	4.9260 ppb	00:38:25
3	Sn 189.927†	7.5	-0.3	-0.0555	ug/L	-0.0555 ppb	00:38:25
3	Ti 334.940†	-952.3	3.1	0.0010	ug/L	0.0010 ppb	00:38:05
3	Tl 190.801†	-19.1	11.9	4.6027	ug/L	4.6027 ppb	00:38:25
3	U 409.014†	-1907.4	86.0	2.5160	ug/L	2.5160 ppb	00:38:05
3	V 292.402†	-1243.1	-2.7	-0.0113	ug/L	-0.0113 ppb	00:38:05
3	Zn 213.857†	592.4	92.9	1.1211	ug/L	1.1211 ppb	00:38:25
3	SiO2†	585.8	110.3	8.6661	ug/L	8.6661 ppb	00:39:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	830244.7	99.461	%	0.5641				0.57%
Sc Radial	3326.5	99.3	%	1.11				1.12%
Y 371.029	710846.9	99.327	%	0.4217				0.42%
Y RADIAL	2713.8	98.92	%	0.861				0.87%
Ag 328.068†	21.3	0.1054	ug/L	0.16343	0.1054	ppb	0.16343	155.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.9	-19.131	ug/L	8.8617	-19.131	ppb	8.8617	46.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.9	-2.1506	ug/L	0.67897	-2.1506	ppb	0.67897	31.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-99.2	-2.7801	ug/L	0.39816	-2.7801	ppb	0.39816	14.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.0479	ug/L	0.03723	0.0479	ppb	0.03723	77.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	9.9	0.0043	ug/L	0.00941	0.0043	ppb	0.00941	220.80%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.6	6.4027	ug/L	8.34015	6.4027	ppb	8.34015	130.26%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -8.4     -0.1200 ug/L       0.09213     -0.1200 ppb        0.09213  76.80%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.6      0.0162 ug/L       0.02631      0.0162 ppb        0.02631 162.42%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.8      0.0500 ug/L       0.22569      0.0500 ppb        0.22569 451.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -27.3     -0.0877 ug/L       0.09855     -0.0877 ppb        0.09855 112.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -12.099 ug/L       39.6695     -12.099 ppb        39.6695 327.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -14.9     -6.8121 ug/L      27.56249     -6.8121 ppb       27.56249 404.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.8      79.848 ug/L      283.4544      79.848 ppb       283.4544 354.99%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                45.2      0.0548 ug/L       0.01358      0.0548 ppb        0.01358  24.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.6     -0.3117 ug/L       0.23485     -0.3117 ppb        0.23485  75.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -19.9     -6.6300 ug/L       6.40279     -6.6300 ppb        6.40279  96.57%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                54.8      1.7266 ug/L       0.09571      1.7266 ppb        0.09571   5.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.3     -2.5080 ug/L       2.73314     -2.5080 ppb        2.73314 108.98%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.7      1.3366 ug/L       1.15275      1.3366 ppb        1.15275  86.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.6     -6.3469 ug/L       5.49090     -6.3469 ppb        5.49090  86.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.7     -1.0999 ug/L       0.76024     -1.0999 ppb        0.76024  69.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.6      2.8524 ug/L       1.19482      2.8524 ppb        1.19482  41.89%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               124.7      4.6284 ug/L       0.32496      4.6284 ppb        0.32496   7.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.8      0.1871 ug/L       1.42508      0.1871 ppb        1.42508 761.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -15.0     -0.1492 ug/L       0.16658     -0.1492 ppb        0.16658 111.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 0.3     -0.0045 ug/L       0.01963     -0.0045 ppb        0.01963 437.67%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.8      1.8564 ug/L       2.62446      1.8564 ppb        2.62446 141.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -50.9     -1.4855 ug/L       3.67742     -1.4855 ppb        3.67742 247.55%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 15.3      0.1152 ug/L       0.20797      0.1152 ppb        0.20797 180.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                97.5      1.1737 ug/L       0.12908      1.1737 ppb        0.12908  11.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     105.7      8.3121 ug/L       0.30740      8.3121 ppb        0.30740   3.70%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 67
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/10/2010 01:31:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3280.5	3280.5	97.9	%			01:33:35
1	Y RADIAL	2665.9	2665.9	97.18	%			01:33:35
1	Al 396.153Radial†	2278.8	2387.3	5106.7	ug/L	5106.7	ppb	01:33:15
1	Ca 317.933Radial†	1332.4	1350.6	5359.8	ug/L	5359.8	ppb	01:33:35
1	Fe 238.204 Radial†	198.9	194.6	5422.7	ug/L	5422.7	ppb	01:33:35
1	K 766.490 Radial†	13157.0	11323.0	5176.8	ug/L	5176.8	ppb	01:33:15
1	Mg 279.077 IEC†	55.1	55.8	5413.3	ug/L	5413.3	ppb	01:33:35
1	Na 589.592 Radial†	29144.7	30548.4	10202	ug/L	10202	ppb	01:33:15
1	Sr 421.552†	52217.8	53294.9	528.43	ug/L	528.43	ppb	01:33:15
1	Sc 361.383	858724.2	858724.2	102.87	%			01:34:33
1	Y 371.029	726576.3	726576.3	101.52	%			01:34:33
1	Ag 328.068†	101319.7	98331.3	499.98	ug/L	499.98	ppb	01:34:38
1	As 188.979†	904.1	894.8	501.69	ug/L	501.69	ppb	01:34:58
1	B 249.677†	17621.2	17219.3	480.39	ug/L	480.39	ppb	01:34:38
1	Ba 233.527†	54313.8	52804.3	494.41	ug/L	494.41	ppb	01:34:38
1	Be 313.107†	1183919.2	1154471.6	499.33	ug/L	499.33	ppb	01:34:33
1	Cd 226.502†	34953.2	34118.8	493.06	ug/L	493.06	ppb	01:34:38
1	Co 228.616†	19830.0	19319.8	501.13	ug/L	501.13	ppb	01:34:38
1	Cr 267.716†	38931.3	37778.4	493.49	ug/L	493.49	ppb	01:34:38
1	Cu 324.752†	163343.9	152712.2	491.46	ug/L	491.46	ppb	01:34:38
1	Mn 257.610†	390344.0	379054.3	497.03	ug/L	497.03	ppb	01:34:33
1	Mo 202.031†	5929.3	5750.0	496.78	ug/L	496.78	ppb	01:34:58
1	Ni 231.604†	16419.5	15907.9	501.10	ug/L	501.10	ppb	01:34:38
1	P 214.914†	3541.5	3267.2	2385.4	ug/L	2385.4	ppb	01:34:58
1	Pb 220.353†	3281.2	3233.5	502.08	ug/L	502.08	ppb	01:34:58
1	S 181.975 Axial†	591.3	543.9	969.15	ug/L	969.15	ppb	01:34:58
1	Sb 206.836†	1259.6	1195.9	513.35	ug/L	513.35	ppb	01:34:58
1	Se 196.026†	617.6	619.6	521.97	ug/L	521.97	ppb	01:34:58
1	Si 251.611†	69072.3	66691.1	2466.7	ug/L	2466.7	ppb	01:34:38
1	Sn 189.927†	2233.4	2163.2	492.19	ug/L	492.19	ppb	01:34:58
1	Ti 334.940†	291404.6	284227.6	482.95	ug/L	482.95	ppb	01:34:38
1	Tl 190.801†	1301.6	1296.3	506.08	ug/L	506.08	ppb	01:34:58
1	U 409.014†	15918.8	17477.4	508.66	ug/L	508.66	ppb	01:34:38
1	V 292.402†	63664.7	63133.7	499.45	ug/L	499.45	ppb	01:34:38
1	Zn 213.857†	42529.4	40839.3	490.85	ug/L	490.85	ppb	01:34:38
1	SiO2†	70806.7	68351.0	5355.7	ug/L	5355.7	ppb	01:36:05
2	Sc Radial	3315.5	3315.5	99.0	%			01:34:00
2	Y RADIAL	2690.8	2690.8	98.09	%			01:34:00
2	Al 396.153Radial†	2257.1	2340.9	5006.4	ug/L	5006.4	ppb	01:33:40
2	Ca 317.933Radial†	1314.4	1318.0	5230.5	ug/L	5230.5	ppb	01:34:00
2	Fe 238.204 Radial†	193.6	187.0	5212.9	ug/L	5212.9	ppb	01:34:00
2	K 766.490 Radial†	12959.8	10981.8	5020.7	ug/L	5020.7	ppb	01:33:40
2	Mg 279.077 IEC†	52.4	52.5	5094.6	ug/L	5094.6	ppb	01:34:00
2	Na 589.592 Radial†	28818.5	29904.4	9986.8	ug/L	9986.8	ppb	01:33:40
2	Sr 421.552†	51785.9	52295.3	518.52	ug/L	518.52	ppb	01:33:40
2	Sc 361.383	843114.2	843114.2	101.00	%			01:35:04
2	Y 371.029	712501.8	712501.8	99.558	%			01:35:04
2	Ag 328.068†	101834.9	100665.0	511.75	ug/L	511.75	ppb	01:35:09
2	As 188.979†	897.2	904.3	507.01	ug/L	507.01	ppb	01:35:29
2	B 249.677†	17762.9	17676.8	493.20	ug/L	493.20	ppb	01:35:09
2	Ba 233.527†	54727.6	54191.5	507.39	ug/L	507.39	ppb	01:35:09
2	Be 313.107†	1190311.9	1182108.7	511.29	ug/L	511.29	ppb	01:35:04
2	Cd 226.502†	35222.4	35014.3	506.04	ug/L	506.04	ppb	01:35:09
2	Co 228.616†	20062.2	19906.6	516.34	ug/L	516.34	ppb	01:35:09
2	Cr 267.716†	39209.7	38754.8	506.23	ug/L	506.23	ppb	01:35:09
2	Cu 324.752†	164906.6	157199.2	505.88	ug/L	505.88	ppb	01:35:09
2	Mn 257.610†	392697.7	388409.9	509.28	ug/L	509.28	ppb	01:35:04
2	Mo 202.031†	5936.6	5863.9	506.60	ug/L	506.60	ppb	01:35:29
2	Ni 231.604†	16526.2	16309.2	513.74	ug/L	513.74	ppb	01:35:09

2	P 214.914†	3522.4	3312.1	2416.9 ug/L	2416.9 ppb	01:35:29
2	Pb 220.353†	3278.5	3289.9	510.84 ug/L	510.84 ppb	01:35:29
2	S 181.975 Axial†	592.3	555.6	990.04 ug/L	990.04 ppb	01:35:29
2	Sb 206.836†	1252.3	1211.4	520.15 ug/L	520.15 ppb	01:35:29
2	Se 196.026†	609.4	622.5	523.82 ug/L	523.82 ppb	01:35:29
2	Si 251.611†	69690.3	68546.1	2535.3 ug/L	2535.3 ppb	01:35:09
2	Sn 189.927†	2244.8	2214.7	503.88 ug/L	503.88 ppb	01:35:29
2	Ti 334.940†	294395.0	292432.9	496.90 ug/L	496.90 ppb	01:35:09
2	Tl 190.801†	1293.7	1312.0	512.25 ug/L	512.25 ppb	01:35:29
2	U 409.014†	15965.0	17809.7	518.36 ug/L	518.36 ppb	01:35:09
2	V 292.402†	64102.9	64713.3	511.94 ug/L	511.94 ppb	01:35:09
2	Zn 213.857†	42882.6	41954.5	504.32 ug/L	504.32 ppb	01:35:09
2	SiO2†	70036.9	68863.2	5395.7 ug/L	5395.7 ppb	01:36:10
3	Sc Radial	3334.1	3334.1	99.5 %		01:34:25
3	Y RADIAL	2714.8	2714.8	98.96 %		01:34:25
3	Al 396.153Radial†	2317.4	2388.7	5109.6 ug/L	5109.6 ppb	01:34:05
3	Ca 317.933Radial†	1319.5	1315.7	5221.6 ug/L	5221.6 ppb	01:34:25
3	Fe 238.204 Radial†	198.5	190.8	5318.9 ug/L	5318.9 ppb	01:34:25
3	K 766.490 Radial†	13106.7	11056.4	5054.8 ug/L	5054.8 ppb	01:34:05
3	Mg 279.077 IEC†	52.4	52.2	5068.4 ug/L	5068.4 ppb	01:34:25
3	Na 589.592 Radial†	29277.4	30203.3	10087 ug/L	10087 ppb	01:34:05
3	Sr 421.552†	52870.7	53093.8	526.44 ug/L	526.44 ppb	01:34:05
3	Sc 361.383	855564.7	855564.7	102.49 %		01:35:35
3	Y 371.029	722866.3	722866.3	101.01 %		01:35:35
3	Ag 328.068†	102969.8	100305.0	509.96 ug/L	509.96 ppb	01:35:40
3	As 188.979†	909.6	903.4	506.56 ug/L	506.56 ppb	01:36:00
3	B 249.677†	17973.8	17626.6	491.78 ug/L	491.78 ppb	01:35:40
3	Ba 233.527†	55366.8	54026.6	505.85 ug/L	505.85 ppb	01:35:40
3	Be 313.107†	1203175.4	1177509.2	509.30 ug/L	509.30 ppb	01:35:35
3	Cd 226.502†	35682.2	34955.4	505.17 ug/L	505.17 ppb	01:35:40
3	Co 228.616†	20332.1	19880.9	515.66 ug/L	515.66 ppb	01:35:40
3	Cr 267.716†	39776.2	38742.5	506.07 ug/L	506.07 ppb	01:35:40
3	Cu 324.752†	166755.7	156627.3	504.05 ug/L	504.05 ppb	01:35:40
3	Mn 257.610†	397201.4	387146.0	507.64 ug/L	507.64 ppb	01:35:35
3	Mo 202.031†	5941.6	5783.2	499.64 ug/L	499.64 ppb	01:36:00
3	Ni 231.604†	16714.6	16254.8	512.02 ug/L	512.02 ppb	01:35:40
3	P 214.914†	3545.0	3283.3	2395.3 ug/L	2395.3 ppb	01:36:00
3	Pb 220.353†	3271.8	3236.1	502.50 ug/L	502.50 ppb	01:36:00
3	S 181.975 Axial†	600.6	555.1	989.10 ug/L	989.10 ppb	01:36:00
3	Sb 206.836†	1266.1	1206.8	517.97 ug/L	517.97 ppb	01:36:00
3	Se 196.026†	606.5	610.9	514.67 ug/L	514.67 ppb	01:36:00
3	Si 251.611†	70512.9	68344.6	2528.0 ug/L	2528.0 ppb	01:35:40
3	Sn 189.927†	2240.1	2177.7	495.47 ug/L	495.47 ppb	01:36:00
3	Ti 334.940†	298191.3	291895.2	495.98 ug/L	495.98 ppb	01:35:40
3	Tl 190.801†	1303.5	1302.8	508.69 ug/L	508.69 ppb	01:36:00
3	U 409.014†	16319.6	17925.6	521.73 ug/L	521.73 ppb	01:35:40
3	V 292.402†	64980.9	64646.4	511.31 ug/L	511.31 ppb	01:35:40
3	Zn 213.857†	43424.1	41864.9	503.23 ug/L	503.23 ppb	01:35:40
3	SiO2†	70239.8	68052.0	5332.2 ug/L	5332.2 ppb	01:36:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852467.7	102.12	%	0.989				0.97%
Sc Radial	3310.0	98.8	%	0.81				0.82%
Y 371.029	720648.1	100.70	%	1.019				1.01%
Y RADIAL	2690.5	98.08	%	0.891				0.91%
Ag 328.068†	99767.1	507.23	ug/L	6.342	507.23	ppb	6.342	1.25%
QC value within limits for Ag 328.068 Recovery = 101.45%								
Al 396.153Radial†	2372.3	5074.2	ug/L	58.75	5074.2	ppb	58.75	1.16%
QC value within limits for Al 396.153Radial Recovery = 101.48%								
As 188.979†	900.8	505.09	ug/L	2.953	505.09	ppb	2.953	0.58%
QC value within limits for As 188.979 Recovery = 101.02%								
B 249.677†	17507.6	488.46	ug/L	7.024	488.46	ppb	7.024	1.44%
QC value within limits for B 249.677 Recovery = 97.69%								
Ba 233.527†	53674.1	502.55	ug/L	7.090	502.55	ppb	7.090	1.41%
QC value within limits for Ba 233.527 Recovery = 100.51%								
Be 313.107†	1171363.2	506.64	ug/L	6.408	506.64	ppb	6.408	1.26%
QC value within limits for Be 313.107 Recovery = 101.33%								
Ca 317.933Radial†	1328.1	5270.7	ug/L	77.33	5270.7	ppb	77.33	1.47%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.41%
Cd 226.502†            34696.2      501.42 ug/L         7.256      501.42 ppb          7.256   1.45%
   QC value within limits for Cd 226.502  Recovery = 100.28%
Co 228.616†            19702.4      511.04 ug/L         8.594      511.04 ppb          8.594   1.68%
   QC value within limits for Co 228.616  Recovery = 102.21%
Cr 267.716†            38425.2      501.93 ug/L         7.311      501.93 ppb          7.311   1.46%
   QC value within limits for Cr 267.716  Recovery = 100.39%
Cu 324.752†           155512.9      500.46 ug/L         7.851      500.46 ppb          7.851   1.57%
   QC value within limits for Cu 324.752  Recovery = 100.09%
Fe 238.204 Radial†       190.8      5318.1 ug/L        104.91      5318.1 ppb         104.91   1.97%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.36%
K 766.490 Radial†      11120.4      5084.1 ug/L         82.05      5084.1 ppb          82.05   1.61%
   QC value within limits for K 766.490 Radial  Recovery = 101.68%
Mg 279.077 IEC†           53.5      5192.1 ug/L        192.01      5192.1 ppb         192.01   3.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.84%
Mn 257.610†           384870.1      504.65 ug/L         6.650      504.65 ppb          6.650   1.32%
   QC value within limits for Mn 257.610  Recovery = 100.93%
Mo 202.031†             5799.0      501.01 ug/L         5.049      501.01 ppb          5.049   1.01%
   QC value within limits for Mo 202.031  Recovery = 100.20%
Na 589.592 Radial†     30218.7       10092 ug/L         107.6       10092 ppb          107.6   1.07%
   QC value within limits for Na 589.592 Radial  Recovery = 100.92%
Ni 231.604†            16157.3      508.95 ug/L         6.855      508.95 ppb          6.855   1.35%
   QC value within limits for Ni 231.604  Recovery = 101.79%
P 214.914†              3287.5      2399.2 ug/L         16.09      2399.2 ppb          16.09   0.67%
   QC value within limits for P 214.914  Recovery = 95.97%
Pb 220.353†             3253.2      505.14 ug/L         4.942      505.14 ppb          4.942   0.98%
   QC value within limits for Pb 220.353  Recovery = 101.03%
S 181.975 Axial†         551.5      982.76 ug/L        11.796      982.76 ppb         11.796   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 98.28%
Sb 206.836†             1204.7      517.16 ug/L         3.475      517.16 ppb          3.475   0.67%
   QC value within limits for Sb 206.836  Recovery = 103.43%
Se 196.026†              617.7      520.15 ug/L         4.839      520.15 ppb          4.839   0.93%
   QC value within limits for Se 196.026  Recovery = 104.03%
Si 251.611†            67860.6      2510.0 ug/L         37.69      2510.0 ppb          37.69   1.50%
   QC value within limits for Si 251.611  Recovery = 100.40%
Sn 189.927†             2185.2      497.18 ug/L         6.032      497.18 ppb          6.032   1.21%
   QC value within limits for Sn 189.927  Recovery = 99.44%
Sr 421.552†            52894.7      524.47 ug/L         5.242      524.47 ppb          5.242   1.00%
   QC value within limits for Sr 421.552  Recovery = 104.89%
Ti 334.940†           289518.6      491.94 ug/L         7.801      491.94 ppb          7.801   1.59%
   QC value within limits for Ti 334.940  Recovery = 98.39%
Tl 190.801†             1303.7      509.01 ug/L         3.095      509.01 ppb          3.095   0.61%
   QC value within limits for Tl 190.801  Recovery = 101.80%
U 409.014†             17737.6      516.25 ug/L         6.786      516.25 ppb          6.786   1.31%
   QC value within limits for U 409.014  Recovery = 103.25%
V 292.402†             64164.4      507.57 ug/L         7.039      507.57 ppb          7.039   1.39%
   QC value within limits for V 292.402  Recovery = 101.51%
Zn 213.857†            41552.9      499.47 ug/L         7.478      499.47 ppb          7.478   1.50%
   QC value within limits for Zn 213.857  Recovery = 99.89%
SiO2†                  68422.1      5361.2 ug/L         32.11      5361.2 ppb          32.11   0.60%
   QC value within limits for SiO2  Recovery = 100.26%
All analyte(s) passed QC.
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Sequence No.: 68
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/10/2010 01:38:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3322.4	3322.4	99.2	%			01:40:39
1	Y RADIAL	2710.1	2710.1	98.79	%			01:40:39
1	Al 396.153Radial†	-55.4	4.2	8.9134	ug/L	8.9134	ppb	01:40:39
1	Ca 317.933Radial†	9.3	-0.8	-3.1240	ug/L	-3.1240	ppb	01:40:39
1	Fe 238.204 Radial†	8.5	-0.0	-0.9638	ug/L	-0.9638	ppb	01:40:39
1	K 766.490 Radial†	2240.8	145.2	66.469	ug/L	66.469	ppb	01:40:19
1	Mg 279.077 IEC†	1.2	0.7	69.850	ug/L	69.850	ppb	01:40:39
1	Na 589.592 Radial†	-737.4	39.0	13.009	ug/L	13.009	ppb	01:40:19
1	Sr 421.552†	21.3	-14.2	-0.1409	ug/L	-0.1409	ppb	01:40:19
1	Sc 361.383	830300.5	830300.5	99.468	%			01:41:35
1	Y 371.029	711202.2	711202.2	99.376	%			01:41:35
1	Ag 328.068†	103.8	-54.7	-0.2729	ug/L	-0.2729	ppb	01:41:35
1	As 188.979†	-24.8	-9.0	-5.0080	ug/L	-5.0080	ppb	01:41:55
1	B 249.677†	-264.8	-176.0	-4.9348	ug/L	-4.9348	ppb	01:41:55
1	Ba 233.527†	-3.1	4.0	0.0388	ug/L	0.0388	ppb	01:41:55
1	Be 313.107†	-3602.5	-9.3	-0.0038	ug/L	-0.0038	ppb	01:41:35
1	Cd 226.502†	-147.6	-6.8	-0.0980	ug/L	-0.0980	ppb	01:41:55
1	Co 228.616†	-41.6	1.8	0.0469	ug/L	0.0469	ppb	01:41:55
1	Cr 267.716†	78.3	13.0	0.1706	ug/L	0.1706	ppb	01:41:55
1	Cu 324.752†	6089.9	52.1	0.1684	ug/L	0.1684	ppb	01:41:35
1	Mn 257.610†	413.6	26.1	0.0313	ug/L	0.0313	ppb	01:41:55
1	Mo 202.031†	18.7	5.1	0.4369	ug/L	0.4369	ppb	01:41:55
1	Ni 231.604†	88.1	35.6	1.1211	ug/L	1.1211	ppb	01:41:55
1	P 214.914†	169.9	-4.6	-3.4866	ug/L	-3.4866	ppb	01:41:55
1	Pb 220.353†	-31.0	12.7	1.9719	ug/L	1.9719	ppb	01:41:55
1	S 181.975 Axial†	32.7	2.0	3.6013	ug/L	3.6013	ppb	01:41:55
1	Sb 206.836†	24.2	-4.1	-1.6910	ug/L	-1.6910	ppb	01:41:55
1	Se 196.026†	-19.9	-0.8	-0.6260	ug/L	-0.6260	ppb	01:41:55
1	Si 251.611†	543.7	94.2	3.4881	ug/L	3.4881	ppb	01:41:55
1	Sn 189.927†	12.2	4.5	1.0200	ug/L	1.0200	ppb	01:41:55
1	Ti 334.940†	-910.1	45.3	0.0716	ug/L	0.0716	ppb	01:41:35
1	Tl 190.801†	-25.1	5.8	2.2677	ug/L	2.2677	ppb	01:41:55
1	U 409.014†	-2051.7	-59.5	-1.7385	ug/L	-1.7385	ppb	01:41:35
1	V 292.402†	-1162.5	78.0	0.6130	ug/L	0.6130	ppb	01:41:35
1	Zn 213.857†	585.4	86.1	1.0375	ug/L	1.0375	ppb	01:41:55
1	SiO2†	557.5	82.0	6.4306	ug/L	6.4306	ppb	01:43:06
2	Sc Radial	3281.0	3281.0	97.9	%			01:41:04
2	Y RADIAL	2682.4	2682.4	97.78	%			01:41:04
2	Al 396.153Radial†	-58.1	0.7	1.5511	ug/L	1.5511	ppb	01:41:04
2	Ca 317.933Radial†	8.2	-1.8	-7.1622	ug/L	-7.1622	ppb	01:41:04
2	Fe 238.204 Radial†	8.7	0.2	5.6056	ug/L	5.6056	ppb	01:41:04
2	K 766.490 Radial†	2103.6	33.7	15.414	ug/L	15.414	ppb	01:40:44
2	Mg 279.077 IEC†	3.1	2.8	267.33	ug/L	267.33	ppb	01:41:04
2	Na 589.592 Radial†	-755.6	11.0	3.6766	ug/L	3.6766	ppb	01:40:44
2	Sr 421.552†	36.8	1.9	0.0186	ug/L	0.0186	ppb	01:40:44
2	Sc 361.383	819812.9	819812.9	98.211	%			01:42:01
2	Y 371.029	701099.4	701099.4	97.965	%			01:42:01
2	Ag 328.068†	133.3	-23.3	-0.1174	ug/L	-0.1174	ppb	01:42:01
2	As 188.979†	-15.6	0.1	0.0681	ug/L	0.0681	ppb	01:42:21
2	B 249.677†	-280.2	-195.1	-5.4683	ug/L	-5.4683	ppb	01:42:21
2	Ba 233.527†	3.6	10.8	0.1006	ug/L	0.1006	ppb	01:42:21
2	Be 313.107†	-3529.0	19.3	0.0084	ug/L	0.0084	ppb	01:42:01
2	Cd 226.502†	-144.6	-5.7	-0.0821	ug/L	-0.0821	ppb	01:42:21
2	Co 228.616†	-53.9	-11.3	-0.2947	ug/L	-0.2947	ppb	01:42:21
2	Cr 267.716†	73.5	9.2	0.1190	ug/L	0.1190	ppb	01:42:21
2	Cu 324.752†	6055.0	94.8	0.3050	ug/L	0.3050	ppb	01:42:01
2	Mn 257.610†	422.4	40.4	0.0425	ug/L	0.0425	ppb	01:42:21
2	Mo 202.031†	10.4	-3.2	-0.2728	ug/L	-0.2728	ppb	01:42:21
2	Ni 231.604†	87.1	35.6	1.1233	ug/L	1.1233	ppb	01:42:21

2	P 214.914†	169.4	-2.9	-2.2997	ug/L	-2.2997	ppb	01:42:21
2	Pb 220.353†	-49.4	-6.4	-0.9930	ug/L	-0.9930	ppb	01:42:21
2	S 181.975 Axial†	27.5	-2.9	-5.1097	ug/L	-5.1097	ppb	01:42:21
2	Sb 206.836†	24.5	-3.5	-1.4706	ug/L	-1.4706	ppb	01:42:21
2	Se 196.026†	-13.2	5.8	4.7526	ug/L	4.7526	ppb	01:42:21
2	Si 251.611†	534.8	92.1	3.4201	ug/L	3.4201	ppb	01:42:21
2	Sn 189.927†	8.7	1.1	0.2413	ug/L	0.2413	ppb	01:42:21
2	Ti 334.940†	-923.9	19.5	0.0099	ug/L	0.0099	ppb	01:42:01
2	Tl 190.801†	-29.7	0.9	0.3368	ug/L	0.3368	ppb	01:42:21
2	U 409.014†	-1937.3	30.6	0.8929	ug/L	0.8929	ppb	01:42:01
2	V 292.402†	-1245.1	-21.0	-0.1621	ug/L	-0.1621	ppb	01:42:01
2	Zn 213.857†	549.6	57.2	0.6853	ug/L	0.6853	ppb	01:42:21
2	SiO2†	566.1	97.9	7.7011	ug/L	7.7011	ppb	01:43:26
3	Sc Radial	3233.0	3233.0	96.5	%			01:41:29
3	Y RADIAL	2636.6	2636.6	96.11	%			01:41:29
3	Al 396.153Radial†	-69.2	-11.7	-25.160	ug/L	-25.160	ppb	01:41:29
3	Ca 317.933Radial†	8.6	-1.3	-5.1698	ug/L	-5.1698	ppb	01:41:29
3	Fe 238.204 Radial†	7.8	-0.6	-15.704	ug/L	-15.704	ppb	01:41:29
3	K 766.490 Radial†	2141.1	104.4	47.784	ug/L	47.784	ppb	01:41:09
3	Mg 279.077 IEC†	1.9	1.5	143.69	ug/L	143.69	ppb	01:41:29
3	Na 589.592 Radial†	-767.7	-13.0	-4.3361	ug/L	-4.3361	ppb	01:41:09
3	Sr 421.552†	32.7	-1.7	-0.0172	ug/L	-0.0172	ppb	01:41:09
3	Sc 361.383	857354.0	857354.0	102.71	%			01:42:26
3	Y 371.029	733842.1	733842.1	102.54	%			01:42:26
3	Ag 328.068†	73.3	-87.7	-0.4497	ug/L	-0.4497	ppb	01:42:26
3	As 188.979†	-23.1	-6.5	-3.6336	ug/L	-3.6336	ppb	01:42:46
3	B 249.677†	-279.0	-181.4	-5.0834	ug/L	-5.0834	ppb	01:42:46
3	Ba 233.527†	-9.4	-1.9	-0.0187	ug/L	-0.0187	ppb	01:42:46
3	Be 313.107†	-3556.9	149.4	0.0647	ug/L	0.0647	ppb	01:42:26
3	Cd 226.502†	-142.1	3.2	0.0491	ug/L	0.0491	ppb	01:42:46
3	Co 228.616†	-49.7	-4.8	-0.1241	ug/L	-0.1241	ppb	01:42:46
3	Cr 267.716†	52.5	-14.6	-0.1921	ug/L	-0.1921	ppb	01:42:46
3	Cu 324.752†	6128.9	-103.1	-0.3337	ug/L	-0.3337	ppb	01:42:26
3	Mn 257.610†	423.7	22.8	0.0225	ug/L	0.0225	ppb	01:42:46
3	Mo 202.031†	15.2	1.0	0.0866	ug/L	0.0866	ppb	01:42:46
3	Ni 231.604†	107.1	51.3	1.6165	ug/L	1.6165	ppb	01:42:46
3	P 214.914†	174.6	-5.4	-4.0539	ug/L	-4.0539	ppb	01:42:46
3	Pb 220.353†	-48.7	-3.5	-0.5508	ug/L	-0.5508	ppb	01:42:46
3	S 181.975 Axial†	30.9	-0.8	-1.3904	ug/L	-1.3904	ppb	01:42:46
3	Sb 206.836†	34.6	5.2	2.1206	ug/L	2.1206	ppb	01:42:46
3	Se 196.026†	-15.2	4.4	3.5406	ug/L	3.5406	ppb	01:42:46
3	Si 251.611†	527.0	60.7	2.2480	ug/L	2.2480	ppb	01:42:46
3	Sn 189.927†	-1.5	-9.3	-2.1050	ug/L	-2.1050	ppb	01:42:46
3	Ti 334.940†	-940.1	45.0	0.0633	ug/L	0.0633	ppb	01:42:26
3	Tl 190.801†	-34.6	-2.6	-1.0064	ug/L	-1.0064	ppb	01:42:46
3	U 409.014†	-1994.1	61.7	1.8032	ug/L	1.8032	ppb	01:42:26
3	V 292.402†	-1286.9	-6.2	-0.0390	ug/L	-0.0390	ppb	01:42:26
3	Zn 213.857†	567.1	49.6	0.5948	ug/L	0.5948	ppb	01:42:46
3	SiO2†	545.9	53.0	4.1645	ug/L	4.1645	ppb	01:43:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835822.5	100.13	%	2.320				2.32%
Sc Radial	3278.8	97.9	%	1.34				1.36%
Y 371.029	715381.2	99.960	%	2.3428				2.34%
Y RADIAL	2676.4	97.56	%	1.354				1.39%
Ag 328.068†	-55.3	-0.2800	ug/L	0.16630	-0.2800	ppb	0.16630	59.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.3	-4.8986	ug/L	17.92912	-4.8986	ppb	17.92912	366.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.1	-2.8578	ug/L	2.62545	-2.8578	ppb	2.62545	91.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-184.2	-5.1622	ug/L	0.27536	-5.1622	ppb	0.27536	5.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.3	0.0403	ug/L	0.05965	0.0403	ppb	0.05965	148.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	53.1	0.0231	ug/L	0.03653	0.0231	ppb	0.03653	158.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.3	-5.1520	ug/L	2.01918	-5.1520	ppb	2.01918	39.19%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.1     -0.0437 ug/L       0.08077     -0.0437 ppb        0.08077 184.93%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -4.8     -0.1240 ug/L       0.17079     -0.1240 ppb        0.17079 137.75%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 2.5      0.0325 ug/L       0.19623      0.0325 ppb        0.19623 603.89%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                14.6      0.0466 ug/L       0.33634      0.0466 ppb        0.33634 722.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -3.6874 ug/L      10.91284     -3.6874 ppb       10.91284 295.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          94.4      43.222 ug/L       25.8310      43.222 ppb        25.8310  59.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.7      160.29 ug/L        99.782      160.29 ppb         99.782  62.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                29.8      0.0321 ug/L       0.01005      0.0321 ppb        0.01005  31.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.0      0.0836 ug/L       0.35482      0.0836 ppb        0.35482 424.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         12.3      4.1166 ug/L       8.68103      4.1166 ppb        8.68103 210.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                40.8      1.2870 ug/L       0.28541      1.2870 ppb        0.28541  22.18%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.3     -3.2801 ug/L       0.89515     -3.2801 ppb        0.89515  27.29%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.9      0.1427 ug/L       1.59950      0.1427 ppb        1.59950 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.5     -0.9663 ug/L       4.37099     -0.9663 ppb        4.37099 452.37%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.8     -0.3470 ug/L       2.13984     -0.3470 ppb        2.13984 616.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.2      2.5557 ug/L       2.82135      2.5557 ppb        2.82135 110.39%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                82.3      3.0521 ug/L       0.69720      3.0521 ppb        0.69720  22.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.2     -0.2812 ug/L       1.62673     -0.2812 ppb        1.62673 578.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -4.7     -0.0465 ug/L       0.08367     -0.0465 ppb        0.08367 179.98%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                36.6      0.0483 ug/L       0.03345      0.0483 ppb        0.03345  69.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.4      0.5327 ug/L       1.64583      0.5327 ppb        1.64583 308.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 10.9      0.3192 ug/L       1.83921      0.3192 ppb        1.83921 576.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 16.9      0.1373 ug/L       0.41653      0.1373 ppb        0.41653 303.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                64.3      0.7725 ug/L       0.23384      0.7725 ppb        0.23384  30.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      77.7      6.0987 ug/L       1.79152      6.0987 ppb        1.79152  29.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 76
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/10/2010 02:35:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3301.9	3301.9	98.6	%			02:37:58
1	Y RADIAL	2679.7	2679.7	97.68	%			02:37:58
1	Al 396.153Radial†	2239.1	2332.0	4987.2	ug/L	4987.2	ppb	02:37:38
1	Ca 317.933Radial†	1308.4	1317.4	5228.2	ug/L	5228.2	ppb	02:37:58
1	Fe 238.204 Radial†	196.6	190.9	5321.3	ug/L	5321.3	ppb	02:37:58
1	K 766.490 Radial†	12878.0	10952.9	5007.6	ug/L	5007.6	ppb	02:37:38
1	Mg 279.077 IEC†	54.4	54.7	5312.0	ug/L	5312.0	ppb	02:37:58
1	Na 589.592 Radial†	27910.2	29103.1	9719.2	ug/L	9719.2	ppb	02:37:38
1	Sr 421.552†	50285.8	50989.3	505.57	ug/L	505.57	ppb	02:37:38
1	Sc 361.383	844424.9	844424.9	101.16	%			02:38:55
1	Y 371.029	713106.4	713106.4	99.643	%			02:38:55
1	Ag 328.068†	102443.0	101109.6	514.04	ug/L	514.04	ppb	02:39:01
1	As 188.979†	911.8	917.3	514.30	ug/L	514.30	ppb	02:39:21
1	B 249.677†	17800.3	17686.5	493.44	ug/L	493.44	ppb	02:39:01
1	Ba 233.527†	55311.6	54684.8	512.01	ug/L	512.01	ppb	02:39:01
1	Be 313.107†	1197991.6	1187871.1	513.78	ug/L	513.78	ppb	02:38:55
1	Cd 226.502†	35682.4	35415.0	511.82	ug/L	511.82	ppb	02:39:01
1	Co 228.616†	20265.3	20076.6	520.75	ug/L	520.75	ppb	02:39:01
1	Cr 267.716†	39587.9	39068.4	510.33	ug/L	510.33	ppb	02:39:01
1	Cu 324.752†	165459.4	157492.2	506.83	ug/L	506.83	ppb	02:39:01
1	Mn 257.610†	396232.2	391300.3	513.07	ug/L	513.07	ppb	02:38:55
1	Mo 202.031†	5987.8	5905.4	510.19	ug/L	510.19	ppb	02:39:21
1	Ni 231.604†	16664.5	16420.4	517.24	ug/L	517.24	ppb	02:39:01
1	P 214.914†	3590.1	3373.5	2463.3	ug/L	2463.3	ppb	02:39:21
1	Pb 220.353†	3305.7	3311.7	514.20	ug/L	514.20	ppb	02:39:21
1	S 181.975 Axial†	608.3	570.5	1016.6	ug/L	1016.6	ppb	02:39:21
1	Sb 206.836†	1281.2	1238.0	531.31	ug/L	531.31	ppb	02:39:21
1	Se 196.026†	625.6	637.7	536.45	ug/L	536.45	ppb	02:39:21
1	Si 251.611†	70175.8	68919.0	2549.1	ug/L	2549.1	ppb	02:39:01
1	Sn 189.927†	2265.0	2231.2	507.62	ug/L	507.62	ppb	02:39:21
1	Ti 334.940†	296666.4	294225.8	499.92	ug/L	499.92	ppb	02:39:01
1	Tl 190.801†	1314.5	1330.5	519.44	ug/L	519.44	ppb	02:39:21
1	U 409.014†	16133.2	17951.4	522.48	ug/L	522.48	ppb	02:39:01
1	V 292.402†	64620.5	65126.4	515.21	ug/L	515.21	ppb	02:39:01
1	Zn 213.857†	43216.4	42218.5	507.48	ug/L	507.48	ppb	02:39:01
1	SiO2†	70830.8	69540.4	5448.8	ug/L	5448.8	ppb	02:40:28
2	Sc Radial	3330.3	3330.3	99.4	%			02:38:23
2	Y RADIAL	2697.8	2697.8	98.34	%			02:38:23
2	Al 396.153Radial†	2211.2	2284.6	4885.3	ug/L	4885.3	ppb	02:38:03
2	Ca 317.933Radial†	1319.5	1317.3	5227.7	ug/L	5227.7	ppb	02:38:23
2	Fe 238.204 Radial†	195.9	188.5	5254.9	ug/L	5254.9	ppb	02:38:23
2	K 766.490 Radial†	13020.6	10984.8	5022.2	ug/L	5022.2	ppb	02:38:03
2	Mg 279.077 IEC†	54.4	54.3	5266.0	ug/L	5266.0	ppb	02:38:23
2	Na 589.592 Radial†	27710.4	28660.5	9571.4	ug/L	9571.4	ppb	02:38:03
2	Sr 421.552†	50268.4	50536.4	501.08	ug/L	501.08	ppb	02:38:03
2	Sc 361.383	845898.6	845898.6	101.34	%			02:39:26
2	Y 371.029	713633.2	713633.2	99.716	%			02:39:26
2	Ag 328.068†	102618.9	101106.8	514.01	ug/L	514.01	ppb	02:39:32
2	As 188.979†	909.7	913.7	512.27	ug/L	512.27	ppb	02:39:52
2	B 249.677†	17903.8	17758.0	495.46	ug/L	495.46	ppb	02:39:32
2	Ba 233.527†	55252.8	54531.5	510.57	ug/L	510.57	ppb	02:39:32
2	Be 313.107†	1197777.9	1185597.0	512.80	ug/L	512.80	ppb	02:39:26
2	Cd 226.502†	35584.0	35256.4	509.53	ug/L	509.53	ppb	02:39:32
2	Co 228.616†	20312.9	20088.6	521.06	ug/L	521.06	ppb	02:39:32
2	Cr 267.716†	39503.8	38917.2	508.35	ug/L	508.35	ppb	02:39:32
2	Cu 324.752†	165855.0	157597.6	507.17	ug/L	507.17	ppb	02:39:32
2	Mn 257.610†	397520.8	391889.6	513.84	ug/L	513.84	ppb	02:39:26
2	Mo 202.031†	5984.7	5892.0	509.03	ug/L	509.03	ppb	02:39:52
2	Ni 231.604†	16716.3	16442.9	517.95	ug/L	517.95	ppb	02:39:32

2	P 214.914†	3585.1	3362.4	2454.8 ug/L	2454.8 ppb	02:39:52
2	Pb 220.353†	3310.2	3310.5	514.00 ug/L	514.00 ppb	02:39:52
2	S 181.975 Axial†	610.1	571.2	1017.9 ug/L	1017.9 ppb	02:39:52
2	Sb 206.836†	1278.8	1233.5	529.39 ug/L	529.39 ppb	02:39:52
2	Se 196.026†	619.6	630.6	530.49 ug/L	530.49 ppb	02:39:52
2	Si 251.611†	70302.0	68922.6	2549.3 ug/L	2549.3 ppb	02:39:32
2	Sn 189.927†	2261.8	2224.1	506.02 ug/L	506.02 ppb	02:39:52
2	Ti 334.940†	296847.7	293893.9	499.37 ug/L	499.37 ppb	02:39:32
2	Tl 190.801†	1306.0	1319.9	515.33 ug/L	515.33 ppb	02:39:52
2	U 409.014†	16047.6	17839.2	519.21 ug/L	519.21 ppb	02:39:32
2	V 292.402†	64713.5	65107.0	515.05 ug/L	515.05 ppb	02:39:32
2	Zn 213.857†	43258.1	42185.3	507.08 ug/L	507.08 ppb	02:39:32
2	SiO2†	70224.9	68820.4	5392.3 ug/L	5392.3 ppb	02:40:33
3	Sc Radial	3357.9	3357.9	100 %		02:38:48
3	Y RADIAL	2711.3	2711.3	98.84 %		02:38:48
3	Al 396.153Radial†	2231.4	2286.5	4889.4 ug/L	4889.4 ppb	02:38:28
3	Ca 317.933Radial†	1322.3	1309.2	5195.5 ug/L	5195.5 ppb	02:38:48
3	Fe 238.204 Radial†	194.5	185.5	5170.3 ug/L	5170.3 ppb	02:38:48
3	K 766.490 Radial†	13193.6	11049.9	5052.1 ug/L	5052.1 ppb	02:38:28
3	Mg 279.077 IEC†	52.6	52.1	5053.9 ug/L	5053.9 ppb	02:38:48
3	Na 589.592 Radial†	27758.0	28478.9	9510.7 ug/L	9510.7 ppb	02:38:28
3	Sr 421.552†	50429.8	50282.0	498.56 ug/L	498.56 ppb	02:38:28
3	Sc 361.383	845862.3	845862.3	101.33 %		02:39:58
3	Y 371.029	714880.1	714880.1	99.890 %		02:39:58
3	Ag 328.068†	103331.0	101813.8	517.56 ug/L	517.56 ppb	02:40:03
3	As 188.979†	907.2	911.2	510.90 ug/L	510.90 ppb	02:40:23
3	B 249.677†	18146.0	17997.7	502.19 ug/L	502.19 ppb	02:40:03
3	Ba 233.527†	55556.4	54833.4	513.40 ug/L	513.40 ppb	02:40:03
3	Be 313.107†	1199319.5	1187169.1	513.49 ug/L	513.49 ppb	02:39:58
3	Cd 226.502†	35734.9	35406.8	511.72 ug/L	511.72 ppb	02:40:03
3	Co 228.616†	20392.9	20168.5	523.13 ug/L	523.13 ppb	02:40:03
3	Cr 267.716†	39752.7	39164.5	511.57 ug/L	511.57 ppb	02:40:03
3	Cu 324.752†	167895.8	159618.7	513.66 ug/L	513.66 ppb	02:40:03
3	Mn 257.610†	395948.4	390354.7	511.83 ug/L	511.83 ppb	02:39:58
3	Mo 202.031†	5975.5	5883.2	508.26 ug/L	508.26 ppb	02:40:23
3	Ni 231.604†	16792.3	16518.5	520.33 ug/L	520.33 ppb	02:40:03
3	P 214.914†	3581.5	3359.0	2451.0 ug/L	2451.0 ppb	02:40:23
3	Pb 220.353†	3302.1	3302.6	512.79 ug/L	512.79 ppb	02:40:23
3	S 181.975 Axial†	604.3	565.5	1007.7 ug/L	1007.7 ppb	02:40:23
3	Sb 206.836†	1277.9	1232.7	529.02 ug/L	529.02 ppb	02:40:23
3	Se 196.026†	615.4	626.5	526.92 ug/L	526.92 ppb	02:40:23
3	Si 251.611†	70877.8	69493.8	2570.5 ug/L	2570.5 ppb	02:40:03
3	Sn 189.927†	2259.3	2221.8	505.48 ug/L	505.48 ppb	02:40:23
3	Ti 334.940†	299518.5	296542.1	503.87 ug/L	503.87 ppb	02:40:03
3	Tl 190.801†	1314.3	1328.1	518.55 ug/L	518.55 ppb	02:40:23
3	U 409.014†	16490.1	18276.5	531.99 ug/L	531.99 ppb	02:40:03
3	V 292.402†	65182.5	65572.5	518.70 ug/L	518.70 ppb	02:40:03
3	Zn 213.857†	43489.0	42414.9	509.86 ug/L	509.86 ppb	02:40:03
3	SiO2†	70540.1	69134.5	5417.0 ug/L	5417.0 ppb	02:40:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	845395.3	101.28	%	0.101				0.10%
Sc Radial	3330.0	99.4	%	0.84				0.84%
Y 371.029	713873.3	99.750	%	0.1273				0.13%
Y RADIAL	2696.3	98.29	%	0.578				0.59%
Ag 328.068†	101343.4	515.20	ug/L	2.041	515.20	ppb	2.041	0.40%
QC value within limits for Ag 328.068 Recovery = 103.04%								
Al 396.153Radial†	2301.0	4920.6	ug/L	57.67	4920.6	ppb	57.67	1.17%
QC value within limits for Al 396.153Radial Recovery = 98.41%								
As 188.979†	914.1	512.49	ug/L	1.706	512.49	ppb	1.706	0.33%
QC value within limits for As 188.979 Recovery = 102.50%								
B 249.677†	17814.1	497.03	ug/L	4.578	497.03	ppb	4.578	0.92%
QC value within limits for B 249.677 Recovery = 99.41%								
Ba 233.527†	54683.2	511.99	ug/L	1.413	511.99	ppb	1.413	0.28%
QC value within limits for Ba 233.527 Recovery = 102.40%								
Be 313.107†	1186879.1	513.35	ug/L	0.504	513.35	ppb	0.504	0.10%
QC value within limits for Be 313.107 Recovery = 102.67%								
Ca 317.933Radial†	1314.6	5217.1	ug/L	18.72	5217.1	ppb	18.72	0.36%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.34%
Cd 226.502†            35359.4      511.02 ug/L         1.292      511.02 ppb          1.292   0.25%
   QC value within limits for Cd 226.502  Recovery = 102.20%
Co 228.616†            20111.2      521.65 ug/L         1.289      521.65 ppb          1.289   0.25%
   QC value within limits for Co 228.616  Recovery = 104.33%
Cr 267.716†            39050.0      510.08 ug/L         1.625      510.08 ppb          1.625   0.32%
   QC value within limits for Cr 267.716  Recovery = 102.02%
Cu 324.752†           158236.2      509.22 ug/L         3.850      509.22 ppb          3.850   0.76%
   QC value within limits for Cu 324.752  Recovery = 101.84%
Fe 238.204 Radial†       188.3      5248.9 ug/L        75.68      5248.9 ppb         75.68   1.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.98%
K 766.490 Radial†      10995.8      5027.3 ug/L        22.67      5027.3 ppb         22.67   0.45%
   QC value within limits for K 766.490 Radial  Recovery = 100.55%
Mg 279.077 IEC†           53.7      5210.7 ug/L       137.69      5210.7 ppb        137.69   2.64%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.21%
Mn 257.610†           391181.5      512.92 ug/L         1.015      512.92 ppb          1.015   0.20%
   QC value within limits for Mn 257.610  Recovery = 102.58%
Mo 202.031†             5893.5      509.16 ug/L         0.969      509.16 ppb          0.969   0.19%
   QC value within limits for Mo 202.031  Recovery = 101.83%
Na 589.592 Radial†     28747.5      9600.4 ug/L       107.22      9600.4 ppb        107.22   1.12%
   QC value within limits for Na 589.592 Radial  Recovery = 96.00%
Ni 231.604†            16460.6      518.51 ug/L         1.620      518.51 ppb          1.620   0.31%
   QC value within limits for Ni 231.604  Recovery = 103.70%
P 214.914†              3365.0      2456.4 ug/L          6.32      2456.4 ppb          6.32   0.26%
   QC value within limits for P 214.914  Recovery = 98.26%
Pb 220.353†             3308.3      513.66 ug/L         0.761      513.66 ppb          0.761   0.15%
   QC value within limits for Pb 220.353  Recovery = 102.73%
S 181.975 Axial†         569.1      1014.0 ug/L          5.57      1014.0 ppb          5.57   0.55%
   QC value within limits for S 181.975 Axial  Recovery = 101.40%
Sb 206.836†             1234.7      529.91 ug/L         1.229      529.91 ppb          1.229   0.23%
   QC value within limits for Sb 206.836  Recovery = 105.98%
Se 196.026†              631.6      531.29 ug/L         4.815      531.29 ppb          4.815   0.91%
   QC value within limits for Se 196.026  Recovery = 106.26%
Si 251.611†            69111.8      2556.3 ug/L        12.28      2556.3 ppb         12.28   0.48%
   QC value within limits for Si 251.611  Recovery = 102.25%
Sn 189.927†             2225.7      506.37 ug/L         1.113      506.37 ppb          1.113   0.22%
   QC value within limits for Sn 189.927  Recovery = 101.27%
Sr 421.552†            50602.6      501.74 ug/L         3.553      501.74 ppb          3.553   0.71%
   QC value within limits for Sr 421.552  Recovery = 100.35%
Ti 334.940†           294887.3      501.05 ug/L         2.457      501.05 ppb          2.457   0.49%
   QC value within limits for Ti 334.940  Recovery = 100.21%
Tl 190.801†             1326.2      517.77 ug/L         2.166      517.77 ppb          2.166   0.42%
   QC value within limits for Tl 190.801  Recovery = 103.55%
U 409.014†             18022.4      524.56 ug/L         6.637      524.56 ppb          6.637   1.27%
   QC value within limits for U 409.014  Recovery = 104.91%
V 292.402†             65268.7      516.32 ug/L         2.062      516.32 ppb          2.062   0.40%
   QC value within limits for V 292.402  Recovery = 103.26%
Zn 213.857†            42272.9      508.14 ug/L         1.500      508.14 ppb          1.500   0.30%
   QC value within limits for Zn 213.857  Recovery = 101.63%
SiO2†                  69165.1      5419.3 ug/L        28.34      5419.3 ppb         28.34   0.52%
   QC value within limits for SiO2  Recovery = 101.34%
All analyte(s) passed QC.
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Sequence No.: 77
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/10/2010 02:42:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3320.2	3320.2	99.1	%			02:45:01
1	Y RADIAL	2711.1	2711.1	98.83	%			02:45:01
1	Al 396.153Radial†	-63.4	-4.0	-8.5408	ug/L	-8.5408	ppb	02:45:01
1	Ca 317.933Radial†	8.6	-1.5	-6.0306	ug/L	-6.0306	ppb	02:45:01
1	Fe 238.204 Radial†	8.5	-0.0	-0.3095	ug/L	-0.3095	ppb	02:45:01
1	K 766.490 Radial†	2134.5	39.4	18.051	ug/L	18.051	ppb	02:44:41
1	Mg 279.077 IEC†	1.3	0.9	87.038	ug/L	87.038	ppb	02:45:01
1	Na 589.592 Radial†	-739.4	36.5	12.176	ug/L	12.176	ppb	02:44:41
1	Sr 421.552†	35.2	-0.2	-0.0015	ug/L	-0.0015	ppb	02:44:41
1	Sc 361.383	831595.9	831595.9	99.623	%			02:45:58
1	Y 371.029	711898.9	711898.9	99.474	%			02:45:58
1	Ag 328.068†	112.3	-46.4	-0.2325	ug/L	-0.2325	ppb	02:45:58
1	As 188.979†	-18.6	-2.7	-1.5202	ug/L	-1.5202	ppb	02:46:18
1	B 249.677†	-282.0	-192.9	-5.4062	ug/L	-5.4062	ppb	02:46:18
1	Ba 233.527†	4.3	11.5	0.1084	ug/L	0.1084	ppb	02:46:18
1	Be 313.107†	-3613.0	-14.1	-0.0060	ug/L	-0.0060	ppb	02:45:58
1	Cd 226.502†	-148.1	-7.1	-0.1009	ug/L	-0.1009	ppb	02:46:18
1	Co 228.616†	-46.2	-2.8	-0.0757	ug/L	-0.0757	ppb	02:46:18
1	Cr 267.716†	59.8	-5.7	-0.0736	ug/L	-0.0736	ppb	02:46:18
1	Cu 324.752†	6074.9	27.5	0.0876	ug/L	0.0876	ppb	02:45:58
1	Mn 257.610†	451.9	63.9	0.0802	ug/L	0.0802	ppb	02:46:18
1	Mo 202.031†	4.5	-9.2	-0.7954	ug/L	-0.7954	ppb	02:46:18
1	Ni 231.604†	102.6	50.0	1.5760	ug/L	1.5760	ppb	02:46:18
1	P 214.914†	182.6	7.9	5.9650	ug/L	5.9650	ppb	02:46:18
1	Pb 220.353†	-36.5	7.3	1.1308	ug/L	1.1308	ppb	02:46:18
1	S 181.975 Axial†	33.1	2.4	4.2967	ug/L	4.2967	ppb	02:46:18
1	Sb 206.836†	27.0	-1.4	-0.5982	ug/L	-0.5982	ppb	02:46:18
1	Se 196.026†	-16.5	2.7	2.1506	ug/L	2.1506	ppb	02:46:18
1	Si 251.611†	527.9	77.5	2.8818	ug/L	2.8818	ppb	02:46:18
1	Sn 189.927†	7.3	-0.5	-0.1174	ug/L	-0.1174	ppb	02:46:18
1	Ti 334.940†	-920.5	36.3	0.0532	ug/L	0.0532	ppb	02:45:58
1	Tl 190.801†	-27.5	3.5	1.3436	ug/L	1.3436	ppb	02:46:18
1	U 409.014†	-1953.1	42.7	1.2459	ug/L	1.2459	ppb	02:45:58
1	V 292.402†	-1157.6	84.8	0.6549	ug/L	0.6549	ppb	02:45:58
1	Zn 213.857†	561.6	61.3	0.7337	ug/L	0.7337	ppb	02:46:18
1	SiO2†	521.3	44.8	3.5376	ug/L	3.5376	ppb	02:47:29
2	Sc Radial	3302.3	3302.3	98.6	%			02:45:26
2	Y RADIAL	2696.0	2696.0	98.28	%			02:45:26
2	Al 396.153Radial†	-58.0	1.2	2.6700	ug/L	2.6700	ppb	02:45:26
2	Ca 317.933Radial†	12.7	2.7	10.725	ug/L	10.725	ppb	02:45:26
2	Fe 238.204 Radial†	8.9	0.4	11.343	ug/L	11.343	ppb	02:45:26
2	K 766.490 Radial†	2118.2	34.6	15.845	ug/L	15.845	ppb	02:45:06
2	Mg 279.077 IEC†	2.8	2.4	229.43	ug/L	229.43	ppb	02:45:26
2	Na 589.592 Radial†	-743.3	28.5	9.5153	ug/L	9.5153	ppb	02:45:06
2	Sr 421.552†	-0.5	-36.2	-0.3586	ug/L	-0.3586	ppb	02:45:06
2	Sc 361.383	824851.7	824851.7	98.815	%			02:46:23
2	Y 371.029	706009.4	706009.4	98.651	%			02:46:23
2	Ag 328.068†	95.1	-62.8	-0.3185	ug/L	-0.3185	ppb	02:46:23
2	As 188.979†	-18.7	-2.9	-1.6297	ug/L	-1.6297	ppb	02:46:43
2	B 249.677†	-296.3	-209.6	-5.8778	ug/L	-5.8778	ppb	02:46:43
2	Ba 233.527†	-11.2	-4.2	-0.0395	ug/L	-0.0395	ppb	02:46:43
2	Be 313.107†	-3581.5	-11.9	-0.0050	ug/L	-0.0050	ppb	02:46:23
2	Cd 226.502†	-148.0	-8.2	-0.1178	ug/L	-0.1178	ppb	02:46:43
2	Co 228.616†	-47.0	-4.0	-0.1062	ug/L	-0.1062	ppb	02:46:43
2	Cr 267.716†	72.4	7.6	0.0972	ug/L	0.0972	ppb	02:46:43
2	Cu 324.752†	6070.8	73.2	0.2342	ug/L	0.2342	ppb	02:46:23
2	Mn 257.610†	443.0	58.6	0.0686	ug/L	0.0686	ppb	02:46:43
2	Mo 202.031†	7.4	-6.2	-0.5377	ug/L	-0.5377	ppb	02:46:43
2	Ni 231.604†	91.1	39.2	1.2343	ug/L	1.2343	ppb	02:46:43

2	P 214.914†	166.9	-6.5	-4.9789	ug/L	-4.9789 ppb	02:46:43
2	Pb 220.353†	-34.6	8.9	1.3824	ug/L	1.3824 ppb	02:46:43
2	S 181.975 Axial†	26.2	-4.3	-7.7496	ug/L	-7.7496 ppb	02:46:43
2	Sb 206.836†	23.2	-5.0	-2.1179	ug/L	-2.1179 ppb	02:46:43
2	Se 196.026†	-19.1	-0.1	-0.0753	ug/L	-0.0753 ppb	02:46:43
2	Si 251.611†	512.0	65.7	2.4444	ug/L	2.4444 ppb	02:46:43
2	Sn 189.927†	-1.7	-9.5	-2.1578	ug/L	-2.1578 ppb	02:46:43
2	Ti 334.940†	-904.6	44.9	0.0574	ug/L	0.0574 ppb	02:46:23
2	Tl 190.801†	-25.7	5.1	1.9805	ug/L	1.9805 ppb	02:46:43
2	U 409.014†	-1863.6	117.2	3.4209	ug/L	3.4209 ppb	02:46:23
2	V 292.402†	-1286.0	-54.6	-0.4250	ug/L	-0.4250 ppb	02:46:23
2	Zn 213.857†	561.4	65.6	0.7864	ug/L	0.7864 ppb	02:46:43
2	SiO2†	532.6	60.6	4.7712	ug/L	4.7712 ppb	02:47:49
3	Sc Radial	3295.3	3295.3	98.4	%		02:45:51
3	Y RADIAL	2685.5	2685.5	97.90	%		02:45:51
3	Al 396.153Radial†	-62.8	-3.8	-8.2471	ug/L	-8.2471 ppb	02:45:51
3	Ca 317.933Radial†	7.9	-2.2	-8.5442	ug/L	-8.5442 ppb	02:45:51
3	Fe 238.204 Radial†	9.2	0.7	20.262	ug/L	20.262 ppb	02:45:51
3	K 766.490 Radial†	2091.8	12.3	5.6467	ug/L	5.6467 ppb	02:45:31
3	Mg 279.077 IEC†	1.0	0.5	52.845	ug/L	52.845 ppb	02:45:51
3	Na 589.592 Radial†	-745.1	25.0	8.3622	ug/L	8.3622 ppb	02:45:31
3	Sr 421.552†	14.7	-20.7	-0.2051	ug/L	-0.2051 ppb	02:45:31
3	Sc 361.383	832499.7	832499.7	99.731	%		02:46:48
3	Y 371.029	713672.4	713672.4	99.722	%		02:46:48
3	Ag 328.068†	130.6	-28.1	-0.1384	ug/L	-0.1384 ppb	02:46:48
3	As 188.979†	-21.8	-5.9	-3.2784	ug/L	-3.2784 ppb	02:47:08
3	B 249.677†	-290.0	-200.6	-5.6255	ug/L	-5.6255 ppb	02:47:08
3	Ba 233.527†	-3.1	4.1	0.0387	ug/L	0.0387 ppb	02:47:08
3	Be 313.107†	-3597.7	5.1	0.0027	ug/L	0.0027 ppb	02:46:48
3	Cd 226.502†	-152.8	-11.7	-0.1700	ug/L	-0.1700 ppb	02:47:08
3	Co 228.616†	-53.7	-10.3	-0.2674	ug/L	-0.2674 ppb	02:47:08
3	Cr 267.716†	58.3	-7.2	-0.0950	ug/L	-0.0950 ppb	02:47:08
3	Cu 324.752†	6085.8	31.8	0.1014	ug/L	0.1014 ppb	02:46:48
3	Mn 257.610†	434.3	45.8	0.0598	ug/L	0.0598 ppb	02:47:08
3	Mo 202.031†	17.6	3.8	0.3318	ug/L	0.3318 ppb	02:47:08
3	Ni 231.604†	74.7	21.9	0.6910	ug/L	0.6910 ppb	02:47:08
3	P 214.914†	165.2	-9.8	-7.4433	ug/L	-7.4433 ppb	02:47:08
3	Pb 220.353†	-33.8	10.0	1.5432	ug/L	1.5432 ppb	02:47:08
3	S 181.975 Axial†	22.5	-8.3	-14.741	ug/L	-14.741 ppb	02:47:08
3	Sb 206.836†	34.8	6.4	2.6684	ug/L	2.6684 ppb	02:47:08
3	Se 196.026†	-14.5	4.6	3.8335	ug/L	3.8335 ppb	02:47:08
3	Si 251.611†	528.0	77.0	2.8500	ug/L	2.8500 ppb	02:47:08
3	Sn 189.927†	8.6	0.8	0.1897	ug/L	0.1897 ppb	02:47:08
3	Ti 334.940†	-843.8	114.2	0.1870	ug/L	0.1870 ppb	02:46:48
3	Tl 190.801†	-25.7	5.3	2.0472	ug/L	2.0472 ppb	02:47:08
3	U 409.014†	-1876.5	121.6	3.5477	ug/L	3.5477 ppb	02:46:48
3	V 292.402†	-1241.0	2.4	0.0281	ug/L	0.0281 ppb	02:46:48
3	Zn 213.857†	573.5	72.6	0.8735	ug/L	0.8735 ppb	02:47:08
3	SiO2†	523.7	46.6	3.6520	ug/L	3.6520 ppb	02:48:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	829649.1	99.390	%	0.5007				0.50%
Sc Radial	3305.9	98.7	%	0.38				0.39%
Y 371.029	710526.9	99.282	%	0.5605				0.56%
Y RADIAL	2697.5	98.33	%	0.468				0.48%
Ag 328.068†	-45.8	-0.2298	ug/L	0.09009	-0.2298	ppb	0.09009	39.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.2	-4.7060	ug/L	6.38945	-4.7060	ppb	6.38945	135.77%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.9	-2.1428	ug/L	0.98503	-2.1428	ppb	0.98503	45.97%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-201.0	-5.6365	ug/L	0.23599	-5.6365	ppb	0.23599	4.19%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.8	0.0359	ug/L	0.07401	0.0359	ppb	0.07401	206.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-7.0	-0.0028	ug/L	0.00471	-0.0028	ppb	0.00471	170.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.3	-1.2833	ug/L	10.47504	-1.2833	ppb	10.47504	816.24%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -9.0     -0.1296 ug/L       0.03600     -0.1296 ppb        0.03600  27.78%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -5.7     -0.1498 ug/L       0.10300     -0.1498 ppb        0.10300  68.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -1.8     -0.0238 ug/L       0.10534     -0.0238 ppb        0.10534 442.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                44.1      0.1411 ug/L       0.08096      0.1411 ppb        0.08096  57.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      10.432 ug/L       10.3162      10.432 ppb        10.3162  98.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          28.8      13.181 ug/L        6.6175      13.181 ppb         6.6175  50.20%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.3      123.10 ug/L        93.652      123.10 ppb         93.652  76.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                56.1      0.0695 ug/L       0.01024      0.0695 ppb        0.01024  14.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.9     -0.3338 ug/L       0.59064     -0.3338 ppb        0.59064 176.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         30.0      10.018 ug/L        1.9557      10.018 ppb         1.9557  19.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                37.0      1.1671 ug/L       0.44635      1.1671 ppb        0.44635  38.24%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.8     -2.1524 ug/L       7.13709     -2.1524 ppb        7.13709 331.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.8      1.3521 ug/L       0.20784      1.3521 ppb        0.20784  15.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.4     -6.0648 ug/L       9.63023     -6.0648 ppb        9.63023 158.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.0     -0.0159 ug/L       2.44568     -0.0159 ppb        2.44568 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.4      1.9696 ug/L       1.96067      1.9696 ppb        1.96067  99.55%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                73.4      2.7254 ug/L       0.24391      2.7254 ppb        0.24391   8.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.1     -0.6951 ug/L       1.27594     -0.6951 ppb        1.27594 183.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -19.0     -0.1884 ug/L       0.17914     -0.1884 ppb        0.17914  95.07%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                65.1      0.0992 ug/L       0.07609      0.0992 ppb        0.07609  76.69%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.6      1.7904 ug/L       0.38837      1.7904 ppb        0.38837  21.69%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 93.8      2.7382 ug/L       1.29392      2.7382 ppb        1.29392  47.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 10.9      0.0860 ug/L       0.54226      0.0860 ppb        0.54226 630.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                66.5      0.7979 ug/L       0.07057      0.7979 ppb        0.07057   8.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      50.6      3.9869 ug/L       0.68160      3.9869 ppb        0.68160  17.10%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 87
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/10/2010 03:54:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3200.6	3200.6	95.5	%			03:56:48
1	Y RADIAL	2591.7	2591.7	94.48	%			03:56:48
1	Al 396.153Radial†	2275.5	2442.0	5222.9	ug/L	5222.9	ppb	03:56:28
1	Ca 317.933Radial†	1314.5	1365.9	5420.5	ug/L	5420.5	ppb	03:56:48
1	Fe 238.204 Radial†	195.8	196.3	5473.0	ug/L	5473.0	ppb	03:56:48
1	K 766.490 Radial†	13359.8	11870.6	5427.4	ug/L	5427.4	ppb	03:56:28
1	Mg 279.077 IEC†	54.5	56.6	5491.3	ug/L	5491.3	ppb	03:56:48
1	Na 589.592 Radial†	28161.9	30262.6	10106	ug/L	10106	ppb	03:56:28
1	Sr 421.552†	51126.4	53483.7	530.31	ug/L	530.31	ppb	03:56:28
1	Sc 361.383	828464.3	828464.3	99.248	%			03:57:45
1	Y 371.029	700723.0	700723.0	97.912	%			03:57:45
1	Ag 328.068†	105781.8	106424.7	541.02	ug/L	541.02	ppb	03:57:51
1	As 188.979†	926.2	949.2	532.27	ug/L	532.27	ppb	03:58:11
1	B 249.677†	18557.3	18788.1	524.23	ug/L	524.23	ppb	03:57:51
1	Ba 233.527†	56823.0	57260.9	536.13	ug/L	536.13	ppb	03:57:51
1	Be 313.107†	1216112.5	1228944.5	531.57	ug/L	531.57	ppb	03:57:45
1	Cd 226.502†	36474.3	36892.4	533.18	ug/L	533.18	ppb	03:57:51
1	Co 228.616†	20830.3	21031.7	545.50	ug/L	545.50	ppb	03:57:51
1	Cr 267.716†	40791.9	41035.5	536.01	ug/L	536.01	ppb	03:57:51
1	Cu 324.752†	172448.5	167685.4	539.62	ug/L	539.62	ppb	03:57:51
1	Mn 257.610†	401069.5	403720.4	529.36	ug/L	529.36	ppb	03:57:45
1	Mo 202.031†	6038.2	6070.2	524.43	ug/L	524.43	ppb	03:58:11
1	Ni 231.604†	17186.6	17263.9	543.81	ug/L	543.81	ppb	03:57:51
1	P 214.914†	3589.6	3441.4	2508.5	ug/L	2508.5	ppb	03:58:11
1	Pb 220.353†	3332.1	3401.3	528.13	ug/L	528.13	ppb	03:58:11
1	S 181.975 Axial†	617.4	591.2	1053.5	ug/L	1053.5	ppb	03:58:11
1	Sb 206.836†	1290.3	1271.6	545.76	ug/L	545.76	ppb	03:58:11
1	Se 196.026†	628.0	652.0	548.65	ug/L	548.65	ppb	03:58:11
1	Si 251.611†	72539.2	72636.8	2686.8	ug/L	2686.8	ppb	03:57:51
1	Sn 189.927†	2291.5	2301.0	523.52	ug/L	523.52	ppb	03:58:11
1	Ti 334.940†	307235.7	310525.1	527.61	ug/L	527.61	ppb	03:57:51
1	Tl 190.801†	1314.1	1355.1	529.16	ug/L	529.16	ppb	03:58:11
1	U 409.014†	17016.9	19149.1	557.38	ug/L	557.38	ppb	03:57:51
1	V 292.402†	66849.1	68602.7	542.56	ug/L	542.56	ppb	03:57:51
1	Zn 213.857†	44583.6	44419.1	533.94	ug/L	533.94	ppb	03:57:51
1	SiO2†	70458.2	70513.9	5524.9	ug/L	5524.9	ppb	03:59:18
2	Sc Radial	3233.1	3233.1	96.5	%			03:57:13
2	Y RADIAL	2613.8	2613.8	95.28	%			03:57:13
2	Al 396.153Radial†	2269.2	2411.6	5157.8	ug/L	5157.8	ppb	03:56:53
2	Ca 317.933Radial†	1325.1	1363.0	5409.1	ug/L	5409.1	ppb	03:57:13
2	Fe 238.204 Radial†	196.1	194.6	5423.7	ug/L	5423.7	ppb	03:57:13
2	K 766.490 Radial†	13185.8	11549.9	5280.7	ug/L	5280.7	ppb	03:56:53
2	Mg 279.077 IEC†	55.0	56.5	5486.2	ug/L	5486.2	ppb	03:57:13
2	Na 589.592 Radial†	28079.9	29881.5	9979.1	ug/L	9979.1	ppb	03:56:53
2	Sr 421.552†	51167.2	52988.3	525.39	ug/L	525.39	ppb	03:56:53
2	Sc 361.383	836428.9	836428.9	100.20	%			03:58:16
2	Y 371.029	706465.1	706465.1	98.715	%			03:58:16
2	Ag 328.068†	104953.1	104582.8	531.68	ug/L	531.68	ppb	03:58:22
2	As 188.979†	915.1	929.2	521.07	ug/L	521.07	ppb	03:58:42
2	B 249.677†	18431.7	18484.8	515.76	ug/L	515.76	ppb	03:58:22
2	Ba 233.527†	56492.4	56385.8	527.94	ug/L	527.94	ppb	03:58:22
2	Be 313.107†	1218012.0	1219172.3	527.33	ug/L	527.33	ppb	03:58:16
2	Cd 226.502†	36264.4	36332.9	525.09	ug/L	525.09	ppb	03:58:22
2	Co 228.616†	20740.6	20742.4	538.00	ug/L	538.00	ppb	03:58:22
2	Cr 267.716†	40450.8	40303.6	526.46	ug/L	526.46	ppb	03:58:22
2	Cu 324.752†	170594.8	164180.9	528.35	ug/L	528.35	ppb	03:58:22
2	Mn 257.610†	401417.2	400219.3	524.76	ug/L	524.76	ppb	03:58:16
2	Mo 202.031†	6034.7	6008.8	519.13	ug/L	519.13	ppb	03:58:42
2	Ni 231.604†	17033.2	16945.9	533.79	ug/L	533.79	ppb	03:58:22

2	P 214.914†	3593.8	3411.2	2487.7 ug/L	2487.7 ppb	03:58:42
2	Pb 220.353†	3319.3	3356.6	521.19 ug/L	521.19 ppb	03:58:42
2	S 181.975 Axial†	606.1	574.1	1022.9 ug/L	1022.9 ppb	03:58:42
2	Sb 206.836†	1284.0	1252.9	537.77 ug/L	537.77 ppb	03:58:42
2	Se 196.026†	622.0	640.0	538.67 ug/L	538.67 ppb	03:58:42
2	Si 251.611†	71883.7	71286.6	2636.8 ug/L	2636.8 ppb	03:58:22
2	Sn 189.927†	2275.2	2262.8	514.83 ug/L	514.83 ppb	03:58:42
2	Ti 334.940†	304686.1	305032.9	518.29 ug/L	518.29 ppb	03:58:22
2	Tl 190.801†	1319.3	1347.7	526.23 ug/L	526.23 ppb	03:58:42
2	U 409.014†	16641.8	18611.4	541.71 ug/L	541.71 ppb	03:58:22
2	V 292.402†	66460.0	67572.9	534.43 ug/L	534.43 ppb	03:58:22
2	Zn 213.857†	44181.0	43589.5	523.97 ug/L	523.97 ppb	03:58:22
2	SiO2†	71049.6	70428.1	5518.3 ug/L	5518.3 ppb	03:59:23
3	Sc Radial	3257.7	3257.7	97.2 %		03:57:38
3	Y RADIAL	2637.2	2637.2	96.14 %		03:57:38
3	Al 396.153Radial†	2270.9	2395.5	5123.4 ug/L	5123.4 ppb	03:57:18
3	Ca 317.933Radial†	1323.7	1351.2	5362.4 ug/L	5362.4 ppb	03:57:38
3	Fe 238.204 Radial†	196.7	193.7	5400.0 ug/L	5400.0 ppb	03:57:38
3	K 766.490 Radial†	13175.1	11435.8	5228.5 ug/L	5228.5 ppb	03:57:18
3	Mg 279.077 IEC†	55.2	56.3	5464.8 ug/L	5464.8 ppb	03:57:38
3	Na 589.592 Radial†	28374.8	29965.3	10007 ug/L	10007 ppb	03:57:18
3	Sr 421.552†	51588.5	53021.6	525.73 ug/L	525.73 ppb	03:57:18
3	Sc 361.383	841470.4	841470.4	100.81 %		03:58:47
3	Y 371.029	711148.3	711148.3	99.369 %		03:58:47
3	Ag 328.068†	105082.8	104083.8	529.14 ug/L	529.14 ppb	03:58:53
3	As 188.979†	902.9	911.7	511.29 ug/L	511.29 ppb	03:59:13
3	B 249.677†	18517.9	18460.1	515.08 ug/L	515.08 ppb	03:58:53
3	Ba 233.527†	56474.2	56030.0	524.61 ug/L	524.61 ppb	03:58:53
3	Be 313.107†	1220168.5	1214028.8	525.11 ug/L	525.11 ppb	03:58:47
3	Cd 226.502†	36215.2	36067.4	521.25 ug/L	521.25 ppb	03:58:53
3	Co 228.616†	20679.8	20558.1	533.22 ug/L	533.22 ppb	03:58:53
3	Cr 267.716†	40496.6	40107.2	523.89 ug/L	523.89 ppb	03:58:53
3	Cu 324.752†	171267.9	163828.6	527.22 ug/L	527.22 ppb	03:58:53
3	Mn 257.610†	402786.2	399177.3	523.40 ug/L	523.40 ppb	03:58:47
3	Mo 202.031†	6037.1	5975.1	516.21 ug/L	516.21 ppb	03:59:13
3	Ni 231.604†	17008.5	16819.5	529.81 ug/L	529.81 ppb	03:58:53
3	P 214.914†	3586.6	3382.5	2466.1 ug/L	2466.1 ppb	03:59:13
3	Pb 220.353†	3329.5	3346.8	519.67 ug/L	519.67 ppb	03:59:13
3	S 181.975 Axial†	616.3	580.5	1034.5 ug/L	1034.5 ppb	03:59:13
3	Sb 206.836†	1277.6	1238.9	531.88 ug/L	531.88 ppb	03:59:13
3	Se 196.026†	625.7	639.9	538.51 ug/L	538.51 ppb	03:59:13
3	Si 251.611†	71885.0	70858.0	2620.9 ug/L	2620.9 ppb	03:58:53
3	Sn 189.927†	2280.2	2254.1	512.86 ug/L	512.86 ppb	03:59:13
3	Ti 334.940†	305148.7	303670.1	515.97 ug/L	515.97 ppb	03:58:53
3	Tl 190.801†	1318.6	1339.2	522.91 ug/L	522.91 ppb	03:59:13
3	U 409.014†	16658.4	18528.4	539.29 ug/L	539.29 ppb	03:58:53
3	V 292.402†	66451.7	67167.3	531.23 ug/L	531.23 ppb	03:58:53
3	Zn 213.857†	44234.2	43378.2	521.43 ug/L	521.43 ppb	03:58:53
3	SiO2†	71177.5	70130.1	5495.0 ug/L	5495.0 ppb	03:59:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	835454.5	100.09	%	0.786				0.78%
Sc Radial	3230.5	96.4	%	0.85				0.89%
Y 371.029	706112.1	98.665	%	0.7296				0.74%
Y RADIAL	2614.3	95.30	%	0.829				0.87%
Ag 328.068†	105030.4	533.94	ug/L	6.256	533.94	ppb	6.256	1.17%
QC value within limits for Ag 328.068 Recovery = 106.79%								
Al 396.153Radial†	2416.4	5168.0	ug/L	50.54	5168.0	ppb	50.54	0.98%
QC value within limits for Al 396.153Radial Recovery = 103.36%								
As 188.979†	930.0	521.54	ug/L	10.498	521.54	ppb	10.498	2.01%
QC value within limits for As 188.979 Recovery = 104.31%								
B 249.677†	18577.7	518.36	ug/L	5.099	518.36	ppb	5.099	0.98%
QC value within limits for B 249.677 Recovery = 103.67%								
Ba 233.527†	56558.9	529.56	ug/L	5.930	529.56	ppb	5.930	1.12%
QC value within limits for Ba 233.527 Recovery = 105.91%								
Be 313.107†	1220715.2	528.00	ug/L	3.284	528.00	ppb	3.284	0.62%
QC value within limits for Be 313.107 Recovery = 105.60%								
Ca 317.933Radial†	1360.0	5397.4	ug/L	30.80	5397.4	ppb	30.80	0.57%

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   QC value within limits for Ca 317.933Radial  Recovery = 107.95%
Cd 226.502†            36430.9      526.51 ug/L         6.091      526.51 ppb          6.091   1.16%
   QC value within limits for Cd 226.502  Recovery = 105.30%
Co 228.616†            20777.4      538.91 ug/L         6.189      538.91 ppb          6.189   1.15%
   QC value within limits for Co 228.616  Recovery = 107.78%
Cr 267.716†            40482.1      528.79 ug/L         6.387      528.79 ppb          6.387   1.21%
   QC value within limits for Cr 267.716  Recovery = 105.76%
Cu 324.752†           165231.6      531.73 ug/L         6.859      531.73 ppb          6.859   1.29%
   QC value within limits for Cu 324.752  Recovery = 106.35%
Fe 238.204 Radial†       194.9      5432.3 ug/L        37.25      5432.3 ppb         37.25   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 108.65%
K 766.490 Radial†      11618.8      5312.2 ug/L       103.17      5312.2 ppb        103.17   1.94%
   QC value within limits for K 766.490 Radial  Recovery = 106.24%
Mg 279.077 IEC†           56.5      5480.8 ug/L        14.04      5480.8 ppb         14.04   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.62%
Mn 257.610†           401039.0      525.84 ug/L         3.122      525.84 ppb          3.122   0.59%
   QC value within limits for Mn 257.610  Recovery = 105.17%
Mo 202.031†             6018.0      519.92 ug/L         4.165      519.92 ppb          4.165   0.80%
   QC value within limits for Mo 202.031  Recovery = 103.98%
Na 589.592 Radial†     30036.5       10031 ug/L          66.9       10031 ppb           66.9   0.67%
   QC value within limits for Na 589.592 Radial  Recovery = 100.31%
Ni 231.604†            17009.8      535.81 ug/L         7.213      535.81 ppb          7.213   1.35%
   QC value within limits for Ni 231.604  Recovery = 107.16%
P 214.914†              3411.7      2487.4 ug/L        21.17      2487.4 ppb         21.17   0.85%
   QC value within limits for P 214.914  Recovery = 99.50%
Pb 220.353†             3368.2      522.99 ug/L         4.512      522.99 ppb          4.512   0.86%
   QC value within limits for Pb 220.353  Recovery = 104.60%
S 181.975 Axial†         581.9      1037.0 ug/L        15.45      1037.0 ppb         15.45   1.49%
   QC value within limits for S 181.975 Axial  Recovery = 103.70%
Sb 206.836†             1254.5      538.47 ug/L         6.966      538.47 ppb          6.966   1.29%
   QC value within limits for Sb 206.836  Recovery = 107.69%
Se 196.026†              644.0      541.94 ug/L         5.808      541.94 ppb          5.808   1.07%
   QC value within limits for Se 196.026  Recovery = 108.39%
Si 251.611†            71593.8      2648.2 ug/L        34.37      2648.2 ppb         34.37   1.30%
   QC value within limits for Si 251.611  Recovery = 105.93%
Sn 189.927†             2272.6      517.07 ug/L         5.674      517.07 ppb          5.674   1.10%
   QC value within limits for Sn 189.927  Recovery = 103.41%
Sr 421.552†            53164.5      527.14 ug/L         2.745      527.14 ppb          2.745   0.52%
   QC value within limits for Sr 421.552  Recovery = 105.43%
Ti 334.940†           306409.4      520.62 ug/L         6.163      520.62 ppb          6.163   1.18%
   QC value within limits for Ti 334.940  Recovery = 104.12%
Tl 190.801†             1347.3      526.10 ug/L         3.125      526.10 ppb          3.125   0.59%
   QC value within limits for Tl 190.801  Recovery = 105.22%
U 409.014†             18763.0      546.12 ug/L         9.821      546.12 ppb          9.821   1.80%
   QC value within limits for U 409.014  Recovery = 109.22%
V 292.402†             67781.0      536.07 ug/L         5.839      536.07 ppb          5.839   1.09%
   QC value within limits for V 292.402  Recovery = 107.21%
Zn 213.857†            43795.6      526.45 ug/L         6.616      526.45 ppb          6.616   1.26%
   QC value within limits for Zn 213.857  Recovery = 105.29%
SiO2†                  70357.4      5512.7 ug/L        15.72      5512.7 ppb         15.72   0.29%
   QC value within limits for SiO2  Recovery = 103.09%
All analyte(s) passed QC.
```

Sequence No.: 88 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/10/2010 04:01:39**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3313.8	3313.8	98.9	%			04:03:51
1	Y RADIAL	2701.8	2701.8	98.49	%			04:03:51
1	Al 396.153Radial†	-56.2	3.2	6.7933	ug/L	6.7933	ppb	04:03:51
1	Ca 317.933Radial†	8.3	-1.9	-7.3990	ug/L	-7.3990	ppb	04:03:51
1	Fe 238.204 Radial†	6.9	-1.6	-45.331	ug/L	-45.331	ppb	04:03:51
1	K 766.490 Radial†	2150.8	60.1	27.519	ug/L	27.519	ppb	04:03:31
1	Mg 279.077 IEC†	2.0	1.6	152.98	ug/L	152.98	ppb	04:03:51
1	Na 589.592 Radial†	-793.9	-20.1	-6.7203	ug/L	-6.7203	ppb	04:03:31
1	Sr 421.552†	10.8	-24.7	-0.2450	ug/L	-0.2450	ppb	04:03:31
1	Sc 361.383	832816.0	832816.0	99.769	%			04:04:48
1	Y 371.029	712869.7	712869.7	99.609	%			04:04:48
1	Ag 328.068†	176.7	18.0	0.0812	ug/L	0.0812	ppb	04:04:48
1	As 188.979†	-17.9	-1.9	-1.0885	ug/L	-1.0885	ppb	04:05:08
1	B 249.677†	-245.5	-155.9	-4.3614	ug/L	-4.3614	ppb	04:05:08
1	Ba 233.527†	-2.4	4.7	0.0428	ug/L	0.0428	ppb	04:05:08
1	Be 313.107†	-3570.2	34.1	0.0153	ug/L	0.0153	ppb	04:04:48
1	Cd 226.502†	-150.7	-9.4	-0.1319	ug/L	-0.1319	ppb	04:05:08
1	Co 228.616†	-53.8	-10.3	-0.2680	ug/L	-0.2680	ppb	04:05:08
1	Cr 267.716†	52.0	-13.6	-0.1771	ug/L	-0.1771	ppb	04:05:08
1	Cu 324.752†	6153.5	97.3	0.3135	ug/L	0.3135	ppb	04:04:48
1	Mn 257.610†	411.3	22.6	0.0189	ug/L	0.0189	ppb	04:05:08
1	Mo 202.031†	12.1	-1.6	-0.1426	ug/L	-0.1426	ppb	04:05:08
1	Ni 231.604†	95.2	42.4	1.3372	ug/L	1.3372	ppb	04:05:08
1	P 214.914†	175.3	0.3	0.2235	ug/L	0.2235	ppb	04:05:08
1	Pb 220.353†	-35.1	8.7	1.3612	ug/L	1.3612	ppb	04:05:08
1	S 181.975 Axial†	29.0	-1.8	-3.2129	ug/L	-3.2129	ppb	04:05:08
1	Sb 206.836†	32.9	4.5	1.8369	ug/L	1.8369	ppb	04:05:08
1	Se 196.026†	-15.1	4.1	3.1925	ug/L	3.1925	ppb	04:05:08
1	Si 251.611†	523.6	72.4	2.6863	ug/L	2.6863	ppb	04:05:08
1	Sn 189.927†	2.0	-5.8	-1.3112	ug/L	-1.3112	ppb	04:05:08
1	Ti 334.940†	-803.2	155.2	0.2527	ug/L	0.2527	ppb	04:04:48
1	Tl 190.801†	-25.6	5.4	2.1069	ug/L	2.1069	ppb	04:05:08
1	U 409.014†	-2179.0	-180.8	-5.2756	ug/L	-5.2756	ppb	04:04:48
1	V 292.402†	-1249.0	-5.1	-0.0428	ug/L	-0.0428	ppb	04:04:48
1	Zn 213.857†	570.5	69.4	0.8397	ug/L	0.8397	ppb	04:05:08
1	SiO2†	518.4	41.2	3.2380	ug/L	3.2380	ppb	04:06:19
2	Sc Radial	3277.3	3277.3	97.8	%			04:04:16
2	Y RADIAL	2661.0	2661.0	97.00	%			04:04:16
2	Al 396.153Radial†	-57.4	1.3	2.8791	ug/L	2.8791	ppb	04:04:16
2	Ca 317.933Radial†	10.9	0.9	3.6064	ug/L	3.6064	ppb	04:04:16
2	Fe 238.204 Radial†	9.1	0.7	19.388	ug/L	19.388	ppb	04:04:16
2	K 766.490 Radial†	2057.0	-11.5	-5.2788	ug/L	-5.2788	ppb	04:03:56
2	Mg 279.077 IEC†	1.3	0.9	82.638	ug/L	82.638	ppb	04:04:16
2	Na 589.592 Radial†	-780.0	-14.8	-4.9445	ug/L	-4.9445	ppb	04:03:56
2	Sr 421.552†	14.2	-21.2	-0.2099	ug/L	-0.2099	ppb	04:03:56
2	Sc 361.383	843374.0	843374.0	101.03	%			04:05:13
2	Y 371.029	722034.4	722034.4	100.89	%			04:05:13
2	Ag 328.068†	88.3	-71.6	-0.3573	ug/L	-0.3573	ppb	04:05:13
2	As 188.979†	-20.6	-4.4	-2.4447	ug/L	-2.4447	ppb	04:05:33
2	B 249.677†	-243.3	-150.6	-4.2245	ug/L	-4.2245	ppb	04:05:33
2	Ba 233.527†	-1.0	6.2	0.0596	ug/L	0.0596	ppb	04:05:33
2	Be 313.107†	-3602.4	47.0	0.0207	ug/L	0.0207	ppb	04:05:13
2	Cd 226.502†	-138.9	4.1	0.0584	ug/L	0.0584	ppb	04:05:33
2	Co 228.616†	-40.6	3.4	0.0870	ug/L	0.0870	ppb	04:05:33
2	Cr 267.716†	54.9	-11.4	-0.1487	ug/L	-0.1487	ppb	04:05:33
2	Cu 324.752†	6203.9	69.9	0.2242	ug/L	0.2242	ppb	04:05:13
2	Mn 257.610†	435.3	41.2	0.0525	ug/L	0.0525	ppb	04:05:33
2	Mo 202.031†	8.8	-5.0	-0.4317	ug/L	-0.4317	ppb	04:05:33
2	Ni 231.604†	88.7	34.8	1.0972	ug/L	1.0972	ppb	04:05:33

2	P 214.914†	169.7	-7.4	-5.6845	ug/L	-5.6845 ppb	04:05:33
2	Pb 220.353†	-28.0	16.2	2.5035	ug/L	2.5035 ppb	04:05:33
2	S 181.975 Axial†	32.0	0.9	1.5223	ug/L	1.5223 ppb	04:05:33
2	Sb 206.836†	28.5	-0.3	-0.1141	ug/L	-0.1141 ppb	04:05:33
2	Se 196.026†	-13.3	6.1	5.0035	ug/L	5.0035 ppb	04:05:33
2	Si 251.611†	511.6	53.9	2.0053	ug/L	2.0053 ppb	04:05:33
2	Sn 189.927†	7.7	-0.2	-0.0428	ug/L	-0.0428 ppb	04:05:33
2	Ti 334.940†	-859.4	109.7	0.1787	ug/L	0.1787 ppb	04:05:13
2	Tl 190.801†	-23.4	7.9	3.0612	ug/L	3.0612 ppb	04:05:33
2	U 409.014†	-1905.5	117.1	3.4191	ug/L	3.4191 ppb	04:05:13
2	V 292.402†	-1212.1	47.0	0.3660	ug/L	0.3660 ppb	04:05:13
2	Zn 213.857†	581.7	73.3	0.8789	ug/L	0.8789 ppb	04:05:33
2	SiO2†	518.3	34.5	2.7202	ug/L	2.7202 ppb	04:06:39
3	Sc Radial	3284.2	3284.2	98.0	%		04:04:41
3	Y RADIAL	2664.4	2664.4	97.12	%		04:04:41
3	Al 396.153Radial†	-66.3	-7.6	-16.419	ug/L	-16.419 ppb	04:04:41
3	Ca 317.933Radial†	9.6	-0.4	-1.7296	ug/L	-1.7296 ppb	04:04:41
3	Fe 238.204 Radial†	9.6	1.1	31.473	ug/L	31.473 ppb	04:04:41
3	K 766.490 Radial†	2133.7	62.3	28.519	ug/L	28.519 ppb	04:04:21
3	Mg 279.077 IEC†	2.3	1.9	184.77	ug/L	184.77 ppb	04:04:41
3	Na 589.592 Radial†	-788.0	-21.3	-7.1110	ug/L	-7.1110 ppb	04:04:21
3	Sr 421.552†	42.4	7.6	0.0750	ug/L	0.0750 ppb	04:04:21
3	Sc 361.383	830195.5	830195.5	99.455	%		04:05:39
3	Y 371.029	710176.7	710176.7	99.233	%		04:05:39
3	Ag 328.068†	135.1	-23.2	-0.1078	ug/L	-0.1078 ppb	04:05:39
3	As 188.979†	-22.1	-6.3	-3.4911	ug/L	-3.4911 ppb	04:05:59
3	B 249.677†	-259.4	-170.6	-4.7879	ug/L	-4.7879 ppb	04:05:59
3	Ba 233.527†	-4.0	3.2	0.0312	ug/L	0.0312 ppb	04:05:59
3	Be 313.107†	-3539.7	53.5	0.0232	ug/L	0.0232 ppb	04:05:39
3	Cd 226.502†	-161.1	-20.4	-0.2968	ug/L	-0.2968 ppb	04:05:59
3	Co 228.616†	-38.4	5.0	0.1282	ug/L	0.1282 ppb	04:05:59
3	Cr 267.716†	54.9	-10.5	-0.1361	ug/L	-0.1361 ppb	04:05:59
3	Cu 324.752†	6138.7	101.9	0.3285	ug/L	0.3285 ppb	04:05:39
3	Mn 257.610†	411.5	24.1	0.0271	ug/L	0.0271 ppb	04:05:59
3	Mo 202.031†	13.7	-0.0	0.0016	ug/L	0.0016 ppb	04:05:59
3	Ni 231.604†	105.8	53.3	1.6802	ug/L	1.6802 ppb	04:05:59
3	P 214.914†	170.5	-4.0	-3.1173	ug/L	-3.1173 ppb	04:05:59
3	Pb 220.353†	-53.3	-9.6	-1.4984	ug/L	-1.4984 ppb	04:05:59
3	S 181.975 Axial†	31.7	1.0	1.8526	ug/L	1.8526 ppb	04:05:59
3	Sb 206.836†	28.8	0.5	0.2102	ug/L	0.2102 ppb	04:05:59
3	Se 196.026†	-12.6	6.5	5.3928	ug/L	5.3928 ppb	04:05:59
3	Si 251.611†	491.7	42.0	1.5560	ug/L	1.5560 ppb	04:05:59
3	Sn 189.927†	7.8	0.0	0.0091	ug/L	0.0091 ppb	04:05:59
3	Ti 334.940†	-915.7	39.5	0.0511	ug/L	0.0511 ppb	04:05:39
3	Tl 190.801†	-25.2	5.7	2.2092	ug/L	2.2092 ppb	04:05:59
3	U 409.014†	-1931.9	60.6	1.7671	ug/L	1.7671 ppb	04:05:39
3	V 292.402†	-1197.9	42.3	0.3328	ug/L	0.3328 ppb	04:05:39
3	Zn 213.857†	562.5	63.1	0.7504	ug/L	0.7504 ppb	04:05:59
3	SiO2†	502.1	26.4	2.0721	ug/L	2.0721 ppb	04:06:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835461.8	100.09	%	0.836				0.84%
Sc Radial	3291.8	98.2	%	0.58				0.59%
Y 371.029	715026.9	99.911	%	0.8686				0.87%
Y RADIAL	2675.7	97.54	%	0.826				0.85%
Ag 328.068†	-25.6	-0.1279	ug/L	0.21996	-0.1279	ppb	0.21996	171.92%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.1	-2.2488	ug/L	12.42667	-2.2488	ppb	12.42667	552.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.2	-2.3414	ug/L	1.20467	-2.3414	ppb	1.20467	51.45%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-159.0	-4.4579	ug/L	0.29384	-4.4579	ppb	0.29384	6.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.7	0.0445	ug/L	0.01426	0.0445	ppb	0.01426	32.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	44.8	0.0197	ug/L	0.00406	0.0197	ppb	0.00406	20.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.5	-1.8407	ug/L	5.50353	-1.8407	ppb	5.50353	298.99%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -8.6     -0.1234 ug/L       0.17773     -0.1234 ppb        0.17773 143.98%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.6     -0.0176 ug/L       0.21782     -0.0176 ppb        0.21782 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -11.8     -0.1539 ug/L       0.02101     -0.1539 ppb        0.02101  13.65%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                89.7      0.2888 ug/L       0.05641      0.2888 ppb        0.05641  19.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      1.8433 ug/L      41.29837      1.8433 ppb       41.29837 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          37.0     16.920 ug/L       19.2312     16.920 ppb        19.2312 113.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.4     140.13 ug/L        52.264     140.13 ppb         52.264  37.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                29.3      0.0328 ug/L       0.01752      0.0328 ppb        0.01752  53.37%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.2     -0.1909 ug/L       0.22066     -0.1909 ppb        0.22066 115.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -18.7     -6.2586 ug/L       1.15467     -6.2586 ppb        1.15467  18.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                43.5      1.3715 ug/L       0.29303      1.3715 ppb        0.29303  21.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.7     -2.8595 ug/L       2.96241     -2.8595 ppb        2.96241 103.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.1      0.7888 ug/L       2.06145      0.7888 ppb        2.06145 261.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.0      0.0540 ug/L       2.83404      0.0540 ppb        2.83404 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.6      0.6443 ug/L       1.04548      0.6443 ppb        1.04548 162.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.6      4.5296 ug/L       1.17419      4.5296 ppb        1.17419  25.92%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                56.1      2.0825 ug/L       0.56909      2.0825 ppb        0.56909  27.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.0     -0.4483 ug/L       0.74774     -0.4483 ppb        0.74774 166.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -12.8     -0.1267 ug/L       0.17554     -0.1267 ppb        0.17554 138.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               101.5      0.1608 ug/L       0.10200      0.1608 ppb        0.10200  63.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.3      2.4591 ug/L       0.52394      2.4591 ppb        0.52394  21.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -1.0     -0.0298 ug/L       4.61748     -0.0298 ppb        4.61748 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.1      0.2187 ug/L       0.22707      0.2187 ppb        0.22707 103.85%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                68.6      0.8230 ug/L       0.06588      0.8230 ppb        0.06588   8.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      34.0      2.6768 ug/L       0.58413      2.6768 ppb        0.58413  21.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 97 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/10/2010 05:06:27**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3299.0	3299.0	98.5	%			05:08:39
1	Y RADIAL	2685.6	2685.6	97.90	%			05:08:39
1	Al 396.153Radial†	2280.6	2376.1	5082.0	ug/L	5082.0	ppb	05:08:19
1	Ca 317.933Radial†	1304.5	1314.6	5217.1	ug/L	5217.1	ppb	05:08:39
1	Fe 238.204 Radial†	195.9	190.4	5306.7	ug/L	5306.7	ppb	05:08:39
1	K 766.490 Radial†	13114.4	11204.2	5122.4	ug/L	5122.4	ppb	05:08:19
1	Mg 279.077 IEC†	56.3	56.7	5505.1	ug/L	5505.1	ppb	05:08:39
1	Na 589.592 Radial†	29405.7	30646.2	10234	ug/L	10234	ppb	05:08:19
1	Sr 421.552†	52457.5	53238.7	527.88	ug/L	527.88	ppb	05:08:19
1	Sc 361.383	843097.7	843097.7	101.00	%			05:09:37
1	Y 371.029	712277.8	712277.8	99.527	%			05:09:37
1	Ag 328.068†	103086.2	101905.9	518.07	ug/L	518.07	ppb	05:09:42
1	As 188.979†	896.3	903.4	506.60	ug/L	506.60	ppb	05:10:02
1	B 249.677†	17771.9	17686.1	493.43	ug/L	493.43	ppb	05:09:42
1	Ba 233.527†	55333.3	54792.3	513.02	ug/L	513.02	ppb	05:09:42
1	Be 313.107†	1211454.8	1203065.2	520.35	ug/L	520.35	ppb	05:09:37
1	Cd 226.502†	35639.3	35427.7	512.01	ug/L	512.01	ppb	05:09:42
1	Co 228.616†	20242.5	20085.5	520.97	ug/L	520.97	ppb	05:09:42
1	Cr 267.716†	39722.6	39263.3	512.87	ug/L	512.87	ppb	05:09:42
1	Cu 324.752†	166916.0	159191.9	512.29	ug/L	512.29	ppb	05:09:42
1	Mn 257.610†	399570.8	395222.5	518.20	ug/L	518.20	ppb	05:09:37
1	Mo 202.031†	5956.2	5883.5	508.29	ug/L	508.29	ppb	05:10:02
1	Ni 231.604†	16741.3	16522.5	520.46	ug/L	520.46	ppb	05:09:42
1	P 214.914†	3535.0	3324.6	2425.1	ug/L	2425.1	ppb	05:10:02
1	Pb 220.353†	3289.6	3300.9	512.55	ug/L	512.55	ppb	05:10:02
1	S 181.975 Axial†	597.7	560.9	999.44	ug/L	999.44	ppb	05:10:02
1	Sb 206.836†	1258.8	1217.8	522.85	ug/L	522.85	ppb	05:10:02
1	Se 196.026†	613.7	626.9	527.63	ug/L	527.63	ppb	05:10:02
1	Si 251.611†	70362.1	69212.6	2560.0	ug/L	2560.0	ppb	05:09:42
1	Sn 189.927†	2242.9	2212.9	503.46	ug/L	503.46	ppb	05:10:02
1	Ti 334.940†	298152.8	296159.3	503.19	ug/L	503.19	ppb	05:09:42
1	Tl 190.801†	1287.2	1305.5	509.81	ug/L	509.81	ppb	05:10:02
1	U 409.014†	16301.9	18143.5	528.09	ug/L	528.09	ppb	05:09:42
1	V 292.402†	65161.4	65762.6	520.16	ug/L	520.16	ppb	05:09:42
1	Zn 213.857†	43404.7	42472.2	510.53	ug/L	510.53	ppb	05:09:42
1	SiO2†	71921.4	70730.3	5542.3	ug/L	5542.3	ppb	05:11:10
2	Sc Radial	3265.2	3265.2	97.5	%			05:09:05
2	Y RADIAL	2650.4	2650.4	96.62	%			05:09:05
2	Al 396.153Radial†	2285.4	2405.1	5144.0	ug/L	5144.0	ppb	05:08:44
2	Ca 317.933Radial†	1315.8	1339.9	5317.6	ug/L	5317.6	ppb	05:09:05
2	Fe 238.204 Radial†	195.6	192.1	5355.0	ug/L	5355.0	ppb	05:09:05
2	K 766.490 Radial†	13030.3	11256.1	5146.1	ug/L	5146.1	ppb	05:08:44
2	Mg 279.077 IEC†	57.5	58.5	5677.6	ug/L	5677.6	ppb	05:09:05
2	Na 589.592 Radial†	29288.8	30836.2	10298	ug/L	10298	ppb	05:08:44
2	Sr 421.552†	52258.3	53587.1	531.33	ug/L	531.33	ppb	05:08:44
2	Sc 361.383	839094.4	839094.4	100.52	%			05:10:08
2	Y 371.029	710375.6	710375.6	99.261	%			05:10:08
2	Ag 328.068†	103727.6	103030.9	523.79	ug/L	523.79	ppb	05:10:13
2	As 188.979†	914.6	925.8	519.12	ug/L	519.12	ppb	05:10:33
2	B 249.677†	18158.3	18154.3	506.53	ug/L	506.53	ppb	05:10:13
2	Ba 233.527†	55753.7	55471.9	519.38	ug/L	519.38	ppb	05:10:13
2	Be 313.107†	1203395.4	1200770.0	519.37	ug/L	519.37	ppb	05:10:08
2	Cd 226.502†	35899.0	35854.5	518.18	ug/L	518.18	ppb	05:10:13
2	Co 228.616†	20408.8	20346.6	527.74	ug/L	527.74	ppb	05:10:13
2	Cr 267.716†	40062.3	39788.9	519.73	ug/L	519.73	ppb	05:10:13
2	Cu 324.752†	168645.7	161701.1	520.37	ug/L	520.37	ppb	05:10:13
2	Mn 257.610†	396133.3	393690.3	516.19	ug/L	516.19	ppb	05:10:08
2	Mo 202.031†	5979.8	5935.0	512.75	ug/L	512.75	ppb	05:10:33
2	Ni 231.604†	16820.0	16679.8	525.41	ug/L	525.41	ppb	05:10:13

2	P 214.914†	3574.7	3380.8	2466.2 ug/L	2466.2 ppb	05:10:33
2	Pb 220.353†	3302.7	3329.5	516.99 ug/L	516.99 ppb	05:10:33
2	S 181.975 Axial†	599.9	566.0	1008.5 ug/L	1008.5 ppb	05:10:33
2	Sb 206.836†	1275.7	1240.7	532.48 ug/L	532.48 ppb	05:10:33
2	Se 196.026†	616.9	632.9	532.68 ug/L	532.68 ppb	05:10:33
2	Si 251.611†	70983.3	70163.0	2595.2 ug/L	2595.2 ppb	05:10:13
2	Sn 189.927†	2257.2	2237.7	509.12 ug/L	509.12 ppb	05:10:33
2	Ti 334.940†	300846.4	300247.2	510.13 ug/L	510.13 ppb	05:10:13
2	Tl 190.801†	1304.7	1329.0	518.91 ug/L	518.91 ppb	05:10:33
2	U 409.014†	16426.4	18344.4	533.93 ug/L	533.93 ppb	05:10:13
2	V 292.402†	65603.6	66510.3	526.06 ug/L	526.06 ppb	05:10:13
2	Zn 213.857†	43712.2	42983.1	516.68 ug/L	516.68 ppb	05:10:13
2	SiO2†	70694.3	69849.3	5473.0 ug/L	5473.0 ppb	05:11:15
3	Sc Radial	3290.6	3290.6	98.2 %		05:09:30
3	Y RADIAL	2668.0	2668.0	97.26 %		05:09:30
3	Al 396.153Radial†	2308.1	2410.0	5154.6 ug/L	5154.6 ppb	05:09:10
3	Ca 317.933Radial†	1307.9	1321.4	5244.2 ug/L	5244.2 ppb	05:09:30
3	Fe 238.204 Radial†	198.4	193.3	5389.6 ug/L	5389.6 ppb	05:09:30
3	K 766.490 Radial†	13206.5	11332.3	5181.0 ug/L	5181.0 ppb	05:09:10
3	Mg 279.077 IEC†	55.9	56.5	5481.9 ug/L	5481.9 ppb	05:09:30
3	Na 589.592 Radial†	29538.4	30858.2	10305 ug/L	10305 ppb	05:09:10
3	Sr 421.552†	52756.3	53679.9	532.25 ug/L	532.25 ppb	05:09:10
3	Sc 361.383	848954.3	848954.3	101.70 %		05:10:39
3	Y 371.029	717288.8	717288.8	100.23 %		05:10:39
3	Ag 328.068†	104638.0	102727.5	522.26 ug/L	522.26 ppb	05:10:44
3	As 188.979†	928.5	929.0	520.85 ug/L	520.85 ppb	05:11:04
3	B 249.677†	18316.8	18100.4	505.02 ug/L	505.02 ppb	05:10:44
3	Ba 233.527†	56273.8	55339.1	518.14 ug/L	518.14 ppb	05:10:44
3	Be 313.107†	1207426.6	1190829.9	515.08 ug/L	515.08 ppb	05:10:39
3	Cd 226.502†	36251.7	35786.5	517.19 ug/L	517.19 ppb	05:10:44
3	Co 228.616†	20641.0	20339.1	527.55 ug/L	527.55 ppb	05:10:44
3	Cr 267.716†	40425.4	39683.1	518.35 ug/L	518.35 ppb	05:10:44
3	Cu 324.752†	170239.1	161319.3	519.14 ug/L	519.14 ppb	05:10:44
3	Mn 257.610†	398332.7	391275.9	513.04 ug/L	513.04 ppb	05:10:39
3	Mo 202.031†	6074.6	5959.2	514.84 ug/L	514.84 ppb	05:11:04
3	Ni 231.604†	17060.9	16722.3	526.75 ug/L	526.75 ppb	05:10:44
3	P 214.914†	3617.5	3381.5	2467.0 ug/L	2467.0 ppb	05:11:04
3	Pb 220.353†	3363.1	3350.7	520.28 ug/L	520.28 ppb	05:11:04
3	S 181.975 Axial†	617.7	576.5	1027.3 ug/L	1027.3 ppb	05:11:04
3	Sb 206.836†	1288.1	1238.1	531.47 ug/L	531.47 ppb	05:11:04
3	Se 196.026†	632.5	641.1	539.49 ug/L	539.49 ppb	05:11:04
3	Si 251.611†	71803.4	70149.2	2594.7 ug/L	2594.7 ppb	05:10:44
3	Sn 189.927†	2290.8	2244.6	510.68 ug/L	510.68 ppb	05:11:04
3	Ti 334.940†	303685.8	299563.1	508.97 ug/L	508.97 ppb	05:10:44
3	Tl 190.801†	1333.1	1341.9	523.90 ug/L	523.90 ppb	05:11:04
3	U 409.014†	16651.8	18376.3	534.86 ug/L	534.86 ppb	05:10:44
3	V 292.402†	66139.8	66279.5	524.28 ug/L	524.28 ppb	05:10:44
3	Zn 213.857†	44197.9	42955.7	516.34 ug/L	516.34 ppb	05:10:44
3	SiO2†	70676.9	69015.4	5407.4 ug/L	5407.4 ppb	05:11:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	843715.5	101.07	%	0.594				0.59%
Sc Radial	3284.9	98.0	%	0.53				0.54%
Y 371.029	713314.1	99.672	%	0.4990				0.50%
Y RADIAL	2668.0	97.26	%	0.640				0.66%
Ag 328.068†	102554.8	521.37	ug/L	2.959	521.37	ppb	2.959	0.57%
QC value within limits for Ag 328.068 Recovery = 104.27%								
Al 396.153Radial†	2397.1	5126.9	ug/L	39.20	5126.9	ppb	39.20	0.76%
QC value within limits for Al 396.153Radial Recovery = 102.54%								
As 188.979†	919.4	515.52	ug/L	7.778	515.52	ppb	7.778	1.51%
QC value within limits for As 188.979 Recovery = 103.10%								
B 249.677†	17980.3	501.66	ug/L	7.166	501.66	ppb	7.166	1.43%
QC value within limits for B 249.677 Recovery = 100.33%								
Ba 233.527†	55201.1	516.85	ug/L	3.372	516.85	ppb	3.372	0.65%
QC value within limits for Ba 233.527 Recovery = 103.37%								
Be 313.107†	1198221.7	518.26	ug/L	2.802	518.26	ppb	2.802	0.54%
QC value within limits for Be 313.107 Recovery = 103.65%								
Ca 317.933Radial†	1325.3	5259.6	ug/L	52.00	5259.6	ppb	52.00	0.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.19%
Cd 226.502†            35689.6      515.79 ug/L         3.313      515.79 ppb          3.313   0.64%
   QC value within limits for Cd 226.502  Recovery = 103.16%
Co 228.616†            20257.0      525.42 ug/L         3.854      525.42 ppb          3.854   0.73%
   QC value within limits for Co 228.616  Recovery = 105.08%
Cr 267.716†            39578.4      516.99 ug/L         3.630      516.99 ppb          3.630   0.70%
   QC value within limits for Cr 267.716  Recovery = 103.40%
Cu 324.752†           160737.4      517.27 ug/L         4.351      517.27 ppb          4.351   0.84%
   QC value within limits for Cu 324.752  Recovery = 103.45%
Fe 238.204 Radial†       191.9      5350.4 ug/L        41.63      5350.4 ppb          41.63   0.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.01%
K 766.490 Radial†      11264.2      5149.8 ug/L        29.47      5149.8 ppb          29.47   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 103.00%
Mg 279.077 IEC†           57.2      5554.9 ug/L       106.92      5554.9 ppb         106.92   1.92%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 111.10%
Mn 257.610†           393396.2      515.81 ug/L         2.602      515.81 ppb          2.602   0.50%
   QC value within limits for Mn 257.610  Recovery = 103.16%
Mo 202.031†             5925.9      511.96 ug/L         3.342      511.96 ppb          3.342   0.65%
   QC value within limits for Mo 202.031  Recovery = 102.39%
Na 589.592 Radial†     30780.2       10279 ug/L          38.9       10279 ppb           38.9   0.38%
   QC value within limits for Na 589.592 Radial  Recovery = 102.79%
Ni 231.604†            16641.5      524.21 ug/L         3.317      524.21 ppb          3.317   0.63%
   QC value within limits for Ni 231.604  Recovery = 104.84%
P 214.914†              3362.3      2452.7 ug/L        23.97      2452.7 ppb          23.97   0.98%
   QC value within limits for P 214.914  Recovery = 98.11%
Pb 220.353†             3327.1      516.61 ug/L         3.878      516.61 ppb          3.878   0.75%
   QC value within limits for Pb 220.353  Recovery = 103.32%
S 181.975 Axial†         567.8      1011.7 ug/L        14.21      1011.7 ppb          14.21   1.40%
   QC value within limits for S 181.975 Axial  Recovery = 101.17%
Sb 206.836†             1232.2      528.93 ug/L         5.293      528.93 ppb          5.293   1.00%
   QC value within limits for Sb 206.836  Recovery = 105.79%
Se 196.026†              633.6      533.27 ug/L         5.952      533.27 ppb          5.952   1.12%
   QC value within limits for Se 196.026  Recovery = 106.65%
Si 251.611†            69841.6      2583.3 ug/L        20.16      2583.3 ppb          20.16   0.78%
   QC value within limits for Si 251.611  Recovery = 103.33%
Sn 189.927†             2231.7      507.75 ug/L         3.800      507.75 ppb          3.800   0.75%
   QC value within limits for Sn 189.927  Recovery = 101.55%
Sr 421.552†            53501.9      530.49 ug/L         2.307      530.49 ppb          2.307   0.43%
   QC value within limits for Sr 421.552  Recovery = 106.10%
Ti 334.940†           298656.5      507.43 ug/L         3.720      507.43 ppb          3.720   0.73%
   QC value within limits for Ti 334.940  Recovery = 101.49%
Tl 190.801†             1325.5      517.54 ug/L         7.148      517.54 ppb          7.148   1.38%
   QC value within limits for Tl 190.801  Recovery = 103.51%
U 409.014†             18288.1      532.29 ug/L         3.673      532.29 ppb          3.673   0.69%
   QC value within limits for U 409.014  Recovery = 106.46%
V 292.402†             66184.1      523.50 ug/L         3.025      523.50 ppb          3.025   0.58%
   QC value within limits for V 292.402  Recovery = 104.70%
Zn 213.857†            42803.7      514.52 ug/L         3.455      514.52 ppb          3.455   0.67%
   QC value within limits for Zn 213.857  Recovery = 102.90%
SiO2†                  69865.0      5474.2 ug/L        67.45      5474.2 ppb          67.45   1.23%
   QC value within limits for SiO2  Recovery = 102.37%
QC Failed.  Continue with analysis.
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Sequence No.: 98 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/10/2010 05:13:29**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3282.9	3282.9	98.0	%			05:15:42
1	Y RADIAL	2678.0	2678.0	97.62	%			05:15:42
1	Al 396.153Radial†	-64.7	-6.0	-12.965	ug/L	-12.965	ppb	05:15:42
1	Ca 317.933Radial†	9.2	-0.8	-3.3007	ug/L	-3.3007	ppb	05:15:42
1	Fe 238.204 Radial†	9.5	1.0	28.874	ug/L	28.874	ppb	05:15:42
1	K 766.490 Radial†	2190.7	121.3	55.528	ug/L	55.528	ppb	05:15:22
1	Mg 279.077 IEC†	1.7	1.3	125.17	ug/L	125.17	ppb	05:15:42
1	Na 589.592 Radial†	-773.2	-6.5	-2.1604	ug/L	-2.1604	ppb	05:15:22
1	Sr 421.552†	-0.3	-36.0	-0.3568	ug/L	-0.3568	ppb	05:15:22
1	Sc 361.383	837869.5	837869.5	100.37	%			05:16:39
1	Y 371.029	716618.1	716618.1	100.13	%			05:16:39
1	Ag 328.068†	183.5	23.7	0.1330	ug/L	0.1330	ppb	05:16:39
1	As 188.979†	-21.0	-5.0	-2.7483	ug/L	-2.7483	ppb	05:16:59
1	B 249.677†	-299.6	-208.3	-5.8446	ug/L	-5.8446	ppb	05:16:59
1	Ba 233.527†	-1.2	6.0	0.0579	ug/L	0.0579	ppb	05:16:59
1	Be 313.107†	-3586.5	39.4	0.0175	ug/L	0.0175	ppb	05:16:39
1	Cd 226.502†	-146.5	-4.4	-0.0659	ug/L	-0.0659	ppb	05:16:59
1	Co 228.616†	-37.0	6.7	0.1736	ug/L	0.1736	ppb	05:16:59
1	Cr 267.716†	70.4	4.4	0.0607	ug/L	0.0607	ppb	05:16:59
1	Cu 324.752†	6106.9	13.7	0.0470	ug/L	0.0470	ppb	05:16:39
1	Mn 257.610†	427.0	35.7	0.0445	ug/L	0.0445	ppb	05:16:59
1	Mo 202.031†	13.0	-0.8	-0.0675	ug/L	-0.0675	ppb	05:16:59
1	Ni 231.604†	96.9	43.5	1.3713	ug/L	1.3713	ppb	05:16:59
1	P 214.914†	169.5	-6.5	-4.9984	ug/L	-4.9984	ppb	05:16:59
1	Pb 220.353†	-48.1	-4.0	-0.6311	ug/L	-0.6311	ppb	05:16:59
1	S 181.975 Axial†	27.2	-3.8	-6.7199	ug/L	-6.7199	ppb	05:16:59
1	Sb 206.836†	31.3	2.8	1.1505	ug/L	1.1505	ppb	05:16:59
1	Se 196.026†	-24.0	-4.7	-3.7476	ug/L	-3.7476	ppb	05:16:59
1	Si 251.611†	512.6	58.3	2.1617	ug/L	2.1617	ppb	05:16:59
1	Sn 189.927†	10.5	2.7	0.6078	ug/L	0.6078	ppb	05:16:59
1	Ti 334.940†	-830.4	132.9	0.2164	ug/L	0.2164	ppb	05:16:39
1	Tl 190.801†	-26.2	4.9	1.9175	ug/L	1.9175	ppb	05:16:59
1	U 409.014†	-2101.2	-90.2	-2.6380	ug/L	-2.6380	ppb	05:16:39
1	V 292.402†	-1187.4	63.8	0.4896	ug/L	0.4896	ppb	05:16:39
1	Zn 213.857†	580.6	76.0	0.9091	ug/L	0.9091	ppb	05:16:59
1	SiO2†	517.3	36.9	2.8996	ug/L	2.8996	ppb	05:18:10
2	Sc Radial	3315.0	3315.0	98.9	%			05:16:07
2	Y RADIAL	2693.6	2693.6	98.19	%			05:16:07
2	Al 396.153Radial†	-65.2	-5.8	-12.568	ug/L	-12.568	ppb	05:16:07
2	Ca 317.933Radial†	9.9	-0.2	-0.6853	ug/L	-0.6853	ppb	05:16:07
2	Fe 238.204 Radial†	7.8	-0.7	-20.376	ug/L	-20.376	ppb	05:16:07
2	K 766.490 Radial†	2196.8	105.8	48.453	ug/L	48.453	ppb	05:15:47
2	Mg 279.077 IEC†	2.8	2.4	234.02	ug/L	234.02	ppb	05:16:07
2	Na 589.592 Radial†	-772.8	1.5	0.5132	ug/L	0.5132	ppb	05:15:47
2	Sr 421.552†	-1.4	-37.1	-0.3678	ug/L	-0.3678	ppb	05:15:47
2	Sc 361.383	825806.9	825806.9	98.929	%			05:17:04
2	Y 371.029	707124.8	707124.8	98.807	%			05:17:04
2	Ag 328.068†	127.8	-29.9	-0.1589	ug/L	-0.1589	ppb	05:17:04
2	As 188.979†	-15.0	0.8	0.4577	ug/L	0.4577	ppb	05:17:24
2	B 249.677†	-302.1	-215.2	-6.0278	ug/L	-6.0278	ppb	05:17:24
2	Ba 233.527†	-9.3	-2.2	-0.0207	ug/L	-0.0207	ppb	05:17:24
2	Be 313.107†	-3576.8	-3.0	-0.0010	ug/L	-0.0010	ppb	05:17:04
2	Cd 226.502†	-154.6	-14.7	-0.2084	ug/L	-0.2084	ppb	05:17:24
2	Co 228.616†	-47.4	-4.3	-0.1110	ug/L	-0.1110	ppb	05:17:24
2	Cr 267.716†	63.9	-1.2	-0.0172	ug/L	-0.0172	ppb	05:17:24
2	Cu 324.752†	6121.7	117.5	0.3754	ug/L	0.3754	ppb	05:17:04
2	Mn 257.610†	438.1	53.1	0.0581	ug/L	0.0581	ppb	05:17:24
2	Mo 202.031†	17.8	4.2	0.3622	ug/L	0.3622	ppb	05:17:24
2	Ni 231.604†	90.0	37.9	1.1950	ug/L	1.1950	ppb	05:17:24

2	P 214.914†	169.4	-4.2	-3.2461 ug/L	-3.2461 ppb	05:17:24
2	Pb 220.353†	-32.8	10.8	1.6676 ug/L	1.6676 ppb	05:17:24
2	S 181.975 Axial†	28.5	-2.1	-3.7118 ug/L	-3.7118 ppb	05:17:24
2	Sb 206.836†	25.3	-2.9	-1.1865 ug/L	-1.1865 ppb	05:17:24
2	Se 196.026†	-24.6	-5.6	-4.6453 ug/L	-4.6453 ppb	05:17:24
2	Si 251.611†	511.9	65.0	2.4071 ug/L	2.4071 ppb	05:17:24
2	Sn 189.927†	4.8	-3.0	-0.6824 ug/L	-0.6824 ppb	05:17:24
2	Ti 334.940†	-869.7	81.1	0.1175 ug/L	0.1175 ppb	05:17:04
2	Tl 190.801†	-26.2	4.6	1.7939 ug/L	1.7939 ppb	05:17:24
2	U 409.014†	-1884.7	98.1	2.8662 ug/L	2.8662 ppb	05:17:04
2	V 292.402†	-1206.2	27.5	0.2330 ug/L	0.2330 ppb	05:17:04
2	Zn 213.857†	571.1	74.8	0.9023 ug/L	0.9023 ppb	05:17:24
2	SiO2†	517.4	44.5	3.4861 ug/L	3.4861 ppb	05:18:30
3	Sc Radial	3280.6	3280.6	97.9 %		05:16:32
3	Y RADIAL	2678.3	2678.3	97.63 %		05:16:32
3	Al 396.153Radial†	-65.8	-7.2	-15.409 ug/L	-15.409 ppb	05:16:32
3	Ca 317.933Radial†	9.8	-0.2	-0.9348 ug/L	-0.9348 ppb	05:16:32
3	Fe 238.204 Radial†	7.6	-0.9	-24.181 ug/L	-24.181 ppb	05:16:32
3	K 766.490 Radial†	2143.5	74.6	34.170 ug/L	34.170 ppb	05:16:12
3	Mg 279.077 IEC†	1.4	1.0	99.507 ug/L	99.507 ppb	05:16:32
3	Na 589.592 Radial†	-797.0	-31.4	-10.474 ug/L	-10.474 ppb	05:16:12
3	Sr 421.552†	29.3	-5.8	-0.0572 ug/L	-0.0572 ppb	05:16:12
3	Sc 361.383	823175.2	823175.2	98.614 %		05:17:29
3	Y 371.029	705129.6	705129.6	98.528 %		05:17:29
3	Ag 328.068†	139.9	-17.2	-0.0910 ug/L	-0.0910 ppb	05:17:29
3	As 188.979†	-19.2	-3.5	-1.9697 ug/L	-1.9697 ppb	05:17:49
3	B 249.677†	-317.1	-231.4	-6.4822 ug/L	-6.4822 ppb	05:17:49
3	Ba 233.527†	-2.6	4.5	0.0428 ug/L	0.0428 ppb	05:17:49
3	Be 313.107†	-3557.8	4.8	0.0022 ug/L	0.0022 ppb	05:17:29
3	Cd 226.502†	-144.1	-4.5	-0.0622 ug/L	-0.0622 ppb	05:17:49
3	Co 228.616†	-49.0	-6.1	-0.1572 ug/L	-0.1572 ppb	05:17:49
3	Cr 267.716†	51.0	-14.0	-0.1824 ug/L	-0.1824 ppb	05:17:49
3	Cu 324.752†	6109.9	125.4	0.4030 ug/L	0.4030 ppb	05:17:29
3	Mn 257.610†	415.0	31.2	0.0344 ug/L	0.0344 ppb	05:17:49
3	Mo 202.031†	16.1	2.5	0.2180 ug/L	0.2180 ppb	05:17:49
3	Ni 231.604†	98.5	46.9	1.4772 ug/L	1.4772 ppb	05:17:49
3	P 214.914†	175.6	2.7	1.9658 ug/L	1.9658 ppb	05:17:49
3	Pb 220.353†	-42.6	0.8	0.1181 ug/L	0.1181 ppb	05:17:49
3	S 181.975 Axial†	31.0	0.6	1.0776 ug/L	1.0776 ppb	05:17:49
3	Sb 206.836†	26.1	-2.0	-0.8394 ug/L	-0.8394 ppb	05:17:49
3	Se 196.026†	-23.6	-4.7	-3.8919 ug/L	-3.8919 ppb	05:17:49
3	Si 251.611†	501.4	56.0	2.0743 ug/L	2.0743 ppb	05:17:49
3	Sn 189.927†	8.3	0.6	0.1332 ug/L	0.1332 ppb	05:17:49
3	Ti 334.940†	-909.1	38.4	0.0577 ug/L	0.0577 ppb	05:17:29
3	Tl 190.801†	-15.0	15.8	6.1400 ug/L	6.1400 ppb	05:17:49
3	U 409.014†	-2022.5	-47.8	-1.3922 ug/L	-1.3922 ppb	05:17:29
3	V 292.402†	-1153.8	76.8	0.6051 ug/L	0.6051 ppb	05:17:29
3	Zn 213.857†	582.7	88.4	1.0665 ug/L	1.0665 ppb	05:17:49
3	SiO2†	519.0	47.8	3.7507 ug/L	3.7507 ppb	05:18:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828950.5	99.306	%	0.9386				0.95%
Sc Radial	3292.8	98.3	%	0.57				0.58%
Y 371.029	709624.1	99.156	%	0.8577				0.87%
Y RADIAL	2683.3	97.81	%	0.325				0.33%
Ag 328.068†	-7.8	-0.0390	ug/L	0.15277	-0.0390	ppb	0.15277	391.72%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-13.647	ug/L	1.5383	-13.647	ppb	1.5383	11.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-1.4201	ug/L	1.67220	-1.4201	ppb	1.67220	117.75%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-218.3	-6.1182	ug/L	0.32824	-6.1182	ppb	0.32824	5.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.8	0.0267	ug/L	0.04172	0.0267	ppb	0.04172	156.43%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	13.7	0.0063	ug/L	0.00990	0.0063	ppb	0.00990	158.15%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.4	-1.6403	ug/L	1.44341	-1.6403	ppb	1.44341	88.00%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -7.9     -0.1122 ug/L       0.08339     -0.1122 ppb        0.08339  74.33%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -1.2     -0.0315 ug/L       0.17917     -0.0315 ppb        0.17917 568.26%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.6     -0.0463 ug/L       0.12412     -0.0463 ppb        0.12412 268.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              85.5      0.2751 ug/L       0.19804      0.2751 ppb        0.19804  71.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.2     -5.2275 ug/L      29.59433     -5.2275 ppb       29.59433 566.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       100.6      46.050 ug/L       10.8794      46.050 ppb        10.8794  23.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6     152.90 ug/L        71.413      152.90 ppb         71.413  46.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              40.0      0.0457 ug/L       0.01187      0.0457 ppb        0.01187  26.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.0      0.1709 ug/L       0.21867      0.1709 ppb        0.21867 127.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -12.1     -4.0405 ug/L       5.72987     -4.0405 ppb        5.72987 141.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              42.8      1.3478 ug/L       0.14256      1.3478 ppb        0.14256  10.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.7     -2.0929 ug/L       3.62249     -2.0929 ppb        3.62249 173.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               2.5      0.3848 ug/L       1.17235      0.3848 ppb        1.17235 304.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.7     -3.1180 ug/L       3.93251     -3.1180 ppb        3.93251 126.12%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.7     -0.2918 ug/L       1.26111     -0.2918 ppb        1.26111 432.17%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -5.0     -4.0949 ug/L       0.48204     -4.0949 ppb        0.48204  11.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              59.8      2.2144 ug/L       0.17254      2.2144 ppb        0.17254   7.79%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.1      0.0195 ug/L       0.65260      0.0195 ppb        0.65260 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -26.3     -0.2606 ug/L       0.17621     -0.2606 ppb        0.17621  67.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              84.2      0.1305 ug/L       0.08014      0.1305 ppb        0.08014  61.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               8.5      3.2838 ug/L       2.47434      3.2838 ppb        2.47434  75.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -13.3     -0.3880 ug/L       2.88624     -0.3880 ppb        2.88624 743.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               56.0      0.4425 ug/L       0.19046      0.4425 ppb        0.19046  43.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              79.7      0.9593 ug/L       0.09291      0.9593 ppb        0.09291   9.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    43.1      3.3788 ug/L       0.43555      3.3788 ppb        0.43555  12.89%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 109
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/10/2010 06:31:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3295.0	3295.0	98.3	%			06:33:22
1	Y RADIAL	2657.2	2657.2	96.86	%			06:33:22
1	Al 396.153Radial†	2109.7	2205.2	4716.0	ug/L	4716.0	ppb	06:33:02
1	Ca 317.933Radial†	1255.1	1265.9	5023.9	ug/L	5023.9	ppb	06:33:22
1	Fe 238.204 Radial†	182.2	176.6	4923.8	ug/L	4923.8	ppb	06:33:22
1	K 766.490 Radial†	12674.8	10773.3	4925.7	ug/L	4925.7	ppb	06:33:02
1	Mg 279.077 IEC†	53.2	53.7	5210.1	ug/L	5210.1	ppb	06:33:22
1	Na 589.592 Radial†	26217.4	27440.6	9164.0	ug/L	9164.0	ppb	06:33:02
1	Sr 421.552†	47718.2	48484.3	480.74	ug/L	480.74	ppb	06:33:02
1	Sc 361.383	851876.4	851876.4	102.05	%			06:34:19
1	Y 371.029	719908.1	719908.1	100.59	%			06:34:19
1	Ag 328.068†	99626.2	97463.6	495.44	ug/L	495.44	ppb	06:34:25
1	As 188.979†	856.6	855.3	479.65	ug/L	479.65	ppb	06:34:45
1	B 249.677†	17457.0	17196.1	479.82	ug/L	479.82	ppb	06:34:25
1	Ba 233.527†	53577.8	52507.5	491.62	ug/L	491.62	ppb	06:34:25
1	Be 313.107†	1169425.0	1149520.1	497.19	ug/L	497.19	ppb	06:34:19
1	Cd 226.502†	34539.7	33986.6	491.20	ug/L	491.20	ppb	06:34:25
1	Co 228.616†	19627.4	19276.2	499.97	ug/L	499.97	ppb	06:34:25
1	Cr 267.716†	38427.8	37589.2	491.00	ug/L	491.00	ppb	06:34:25
1	Cu 324.752†	161890.4	152564.3	490.96	ug/L	490.96	ppb	06:34:25
1	Mn 257.610†	376058.2	368105.9	482.64	ug/L	482.64	ppb	06:34:25
1	Mo 202.031†	5706.7	5578.2	481.91	ug/L	481.91	ppb	06:34:45
1	Ni 231.604†	16157.5	15779.6	497.05	ug/L	497.05	ppb	06:34:25
1	P 214.914†	3400.5	3156.8	2301.9	ug/L	2301.9	ppb	06:34:45
1	Pb 220.353†	3147.7	3128.3	485.74	ug/L	485.74	ppb	06:34:45
1	S 181.975 Axial†	567.3	525.1	935.61	ug/L	935.61	ppb	06:34:45
1	Sb 206.836†	1225.6	1172.5	503.23	ug/L	503.23	ppb	06:34:45
1	Se 196.026†	579.8	587.4	494.26	ug/L	494.26	ppb	06:34:45
1	Si 251.611†	68216.5	66392.2	2455.8	ug/L	2455.8	ppb	06:34:25
1	Sn 189.927†	2184.0	2132.3	485.13	ug/L	485.13	ppb	06:34:45
1	Ti 334.940†	288230.7	283394.5	481.51	ug/L	481.51	ppb	06:34:25
1	Tl 190.801†	1248.1	1254.1	489.63	ug/L	489.63	ppb	06:34:45
1	U 409.014†	15565.1	17255.2	502.24	ug/L	502.24	ppb	06:34:25
1	V 292.402†	62684.5	62670.7	495.68	ug/L	495.68	ppb	06:34:25
1	Zn 213.857†	42014.0	40666.6	488.86	ug/L	488.86	ppb	06:34:25
1	SiO2†	68313.3	66461.1	5207.7	ug/L	5207.7	ppb	06:35:52
2	Sc Radial	3287.7	3287.7	98.1	%			06:33:47
2	Y RADIAL	2660.9	2660.9	97.00	%			06:33:47
2	Al 396.153Radial†	2100.3	2200.3	4705.1	ug/L	4705.1	ppb	06:33:27
2	Ca 317.933Radial†	1260.3	1274.1	5056.4	ug/L	5056.4	ppb	06:33:47
2	Fe 238.204 Radial†	186.4	181.3	5053.6	ug/L	5053.6	ppb	06:33:47
2	K 766.490 Radial†	12562.2	10687.2	4886.2	ug/L	4886.2	ppb	06:33:27
2	Mg 279.077 IEC†	52.2	52.8	5122.3	ug/L	5122.3	ppb	06:33:47
2	Na 589.592 Radial†	26462.6	27749.7	9267.2	ug/L	9267.2	ppb	06:33:27
2	Sr 421.552†	47991.1	48870.3	484.56	ug/L	484.56	ppb	06:33:27
2	Sc 361.383	846423.3	846423.3	101.40	%			06:34:50
2	Y 371.029	715649.8	715649.8	99.998	%			06:34:50
2	Ag 328.068†	99535.7	98003.3	498.22	ug/L	498.22	ppb	06:34:55
2	As 188.979†	880.2	884.0	495.63	ug/L	495.63	ppb	06:35:15
2	B 249.677†	17409.2	17259.2	481.57	ug/L	481.57	ppb	06:34:55
2	Ba 233.527†	53497.4	52766.5	494.05	ug/L	494.05	ppb	06:34:55
2	Be 313.107†	1153973.5	1141664.4	493.80	ug/L	493.80	ppb	06:34:50
2	Cd 226.502†	34482.1	34147.9	493.52	ug/L	493.52	ppb	06:34:55
2	Co 228.616†	19553.5	19327.3	501.31	ug/L	501.31	ppb	06:34:55
2	Cr 267.716†	38445.5	37849.3	494.40	ug/L	494.40	ppb	06:34:55
2	Cu 324.752†	161676.7	153375.5	493.58	ug/L	493.58	ppb	06:34:55
2	Mn 257.610†	375775.5	370201.1	485.41	ug/L	485.41	ppb	06:34:55
2	Mo 202.031†	5756.3	5663.1	489.25	ug/L	489.25	ppb	06:35:15
2	Ni 231.604†	16150.7	15874.9	500.06	ug/L	500.06	ppb	06:34:55

2	P 214.914†	3421.3	3198.7	2333.2 ug/L	2333.2 ppb	06:35:15
2	Pb 220.353†	3166.8	3167.0	491.73 ug/L	491.73 ppb	06:35:15
2	S 181.975 Axial†	577.3	538.5	959.61 ug/L	959.61 ppb	06:35:15
2	Sb 206.836†	1238.5	1192.9	511.95 ug/L	511.95 ppb	06:35:15
2	Se 196.026†	595.4	606.4	510.12 ug/L	510.12 ppb	06:35:15
2	Si 251.611†	68123.4	66731.1	2468.3 ug/L	2468.3 ppb	06:34:55
2	Sn 189.927†	2197.5	2159.4	491.29 ug/L	491.29 ppb	06:35:15
2	Ti 334.940†	288227.4	285210.9	484.61 ug/L	484.61 ppb	06:34:55
2	Tl 190.801†	1255.2	1268.9	495.42 ug/L	495.42 ppb	06:35:15
2	U 409.014†	15561.9	17350.4	504.99 ug/L	504.99 ppb	06:34:55
2	V 292.402†	62754.4	63135.3	499.39 ug/L	499.39 ppb	06:34:55
2	Zn 213.857†	41951.5	40870.3	491.29 ug/L	491.29 ppb	06:34:55
2	SiO2†	67168.8	65763.6	5152.7 ug/L	5152.7 ppb	06:35:57
3	Sc Radial	3302.9	3302.9	98.6 %		06:34:12
3	Y RADIAL	2666.0	2666.0	97.18 %		06:34:12
3	Al 396.153Radial†	2120.7	2211.2	4728.6 ug/L	4728.6 ppb	06:33:52
3	Ca 317.933Radial†	1263.0	1270.9	5043.8 ug/L	5043.8 ppb	06:34:12
3	Fe 238.204 Radial†	185.0	179.1	4991.9 ug/L	4991.9 ppb	06:34:12
3	K 766.490 Radial†	12572.0	10638.4	4863.9 ug/L	4863.9 ppb	06:33:52
3	Mg 279.077 IEC†	51.2	51.5	5000.0 ug/L	5000.0 ppb	06:34:12
3	Na 589.592 Radial†	26458.9	27621.9	9224.5 ug/L	9224.5 ppb	06:33:52
3	Sr 421.552†	47912.6	48565.8	481.54 ug/L	481.54 ppb	06:33:52
3	Sc 361.383	845494.0	845494.0	101.29 %		06:35:21
3	Y 371.029	715460.8	715460.8	99.972 %		06:35:21
3	Ag 328.068†	99304.4	97882.8	497.59 ug/L	497.59 ppb	06:35:26
3	As 188.979†	875.4	880.2	493.51 ug/L	493.51 ppb	06:35:46
3	B 249.677†	17358.0	17227.5	480.68 ug/L	480.68 ppb	06:35:26
3	Ba 233.527†	53215.4	52546.0	491.99 ug/L	491.99 ppb	06:35:26
3	Be 313.107†	1163507.5	1152328.0	498.40 ug/L	498.40 ppb	06:35:21
3	Cd 226.502†	34416.4	34120.4	493.13 ug/L	493.13 ppb	06:35:26
3	Co 228.616†	19582.5	19377.1	502.60 ug/L	502.60 ppb	06:35:26
3	Cr 267.716†	38261.5	37709.4	492.57 ug/L	492.57 ppb	06:35:26
3	Cu 324.752†	161311.5	153190.3	492.98 ug/L	492.98 ppb	06:35:26
3	Mn 257.610†	374151.2	369004.8	483.84 ug/L	483.84 ppb	06:35:26
3	Mo 202.031†	5729.8	5643.2	487.53 ug/L	487.53 ppb	06:35:46
3	Ni 231.604†	16153.7	15895.3	500.70 ug/L	500.70 ppb	06:35:26
3	P 214.914†	3433.4	3214.3	2345.2 ug/L	2345.2 ppb	06:35:46
3	Pb 220.353†	3157.0	3160.8	490.77 ug/L	490.77 ppb	06:35:46
3	S 181.975 Axial†	576.5	538.4	959.33 ug/L	959.33 ppb	06:35:46
3	Sb 206.836†	1241.5	1197.2	513.71 ug/L	513.71 ppb	06:35:46
3	Se 196.026†	590.7	602.4	506.69 ug/L	506.69 ppb	06:35:46
3	Si 251.611†	67873.7	66558.4	2461.9 ug/L	2461.9 ppb	06:35:26
3	Sn 189.927†	2196.5	2160.7	491.60 ug/L	491.60 ppb	06:35:46
3	Ti 334.940†	286895.4	284208.3	482.91 ug/L	482.91 ppb	06:35:26
3	Tl 190.801†	1263.1	1278.1	498.95 ug/L	498.95 ppb	06:35:46
3	U 409.014†	15604.3	17409.1	506.72 ug/L	506.72 ppb	06:35:26
3	V 292.402†	62631.6	63082.1	498.97 ug/L	498.97 ppb	06:35:26
3	Zn 213.857†	41905.8	40870.6	491.30 ug/L	491.30 ppb	06:35:26
3	SiO2†	68122.1	66777.6	5232.4 ug/L	5232.4 ppb	06:36:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	847931.2	101.58	%	0.413				0.41%
Sc Radial	3295.2	98.4	%	0.23				0.23%
Y 371.029	717006.2	100.19	%	0.351				0.35%
Y RADIAL	2661.4	97.02	%	0.161				0.17%
Ag 328.068†	97783.3	497.08	ug/L	1.457	497.08	ppb	1.457	0.29%
QC value within limits for Ag 328.068 Recovery = 99.42%								
Al 396.153Radial†	2205.6	4716.6	ug/L	11.73	4716.6	ppb	11.73	0.25%
QC value within limits for Al 396.153Radial Recovery = 94.33%								
As 188.979†	873.2	489.60	ug/L	8.681	489.60	ppb	8.681	1.77%
QC value within limits for As 188.979 Recovery = 97.92%								
B 249.677†	17227.6	480.69	ug/L	0.872	480.69	ppb	0.872	0.18%
QC value within limits for B 249.677 Recovery = 96.14%								
Ba 233.527†	52606.7	492.55	ug/L	1.310	492.55	ppb	1.310	0.27%
QC value within limits for Ba 233.527 Recovery = 98.51%								
Be 313.107†	1147837.5	496.47	ug/L	2.383	496.47	ppb	2.383	0.48%
QC value within limits for Be 313.107 Recovery = 99.29%								
Ca 317.933Radial†	1270.3	5041.4	ug/L	16.35	5041.4	ppb	16.35	0.32%

```
   QC value within limits for Ca 317.933Radial  Recovery = 100.83%
Cd 226.502†            34085.0      492.61 ug/L         1.242      492.61 ppb          1.242   0.25%
   QC value within limits for Cd 226.502  Recovery = 98.52%
Co 228.616†            19326.9      501.29 ug/L         1.312      501.29 ppb          1.312   0.26%
   QC value within limits for Co 228.616  Recovery = 100.26%
Cr 267.716†            37716.0      492.65 ug/L         1.702      492.65 ppb          1.702   0.35%
   QC value within limits for Cr 267.716  Recovery = 98.53%
Cu 324.752†           153043.4      492.50 ug/L         1.370      492.50 ppb          1.370   0.28%
   QC value within limits for Cu 324.752  Recovery = 98.50%
Fe 238.204 Radial†       179.0      4989.8 ug/L         64.89      4989.8 ppb          64.89   1.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.80%
K 766.490 Radial†      10699.7      4891.9 ug/L         31.30      4891.9 ppb          31.30   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 97.84%
Mg 279.077 IEC†           52.7      5110.8 ug/L        105.56      5110.8 ppb         105.56   2.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.22%
Mn 257.610†           369103.9      483.96 ug/L         1.385      483.96 ppb          1.385   0.29%
   QC value within limits for Mn 257.610  Recovery = 96.79%
Mo 202.031†             5628.2      486.23 ug/L         3.838      486.23 ppb          3.838   0.79%
   QC value within limits for Mo 202.031  Recovery = 97.25%
Na 589.592 Radial†     27604.1      9218.5 ug/L         51.87      9218.5 ppb          51.87   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 92.19%
Ni 231.604†            15849.9      499.27 ug/L         1.946      499.27 ppb          1.946   0.39%
   QC value within limits for Ni 231.604  Recovery = 99.85%
P 214.914†              3189.9      2326.7 ug/L         22.37      2326.7 ppb          22.37   0.96%
   QC value within limits for P 214.914  Recovery = 93.07%
Pb 220.353†             3152.0      489.41 ug/L         3.220      489.41 ppb          3.220   0.66%
   QC value within limits for Pb 220.353  Recovery = 97.88%
S 181.975 Axial†         534.0      951.52 ug/L        13.776      951.52 ppb         13.776   1.45%
   QC value within limits for S 181.975 Axial  Recovery = 95.15%
Sb 206.836†             1187.5      509.63 ug/L         5.614      509.63 ppb          5.614   1.10%
   QC value within limits for Sb 206.836  Recovery = 101.93%
Se 196.026†              598.7      503.69 ug/L         8.345      503.69 ppb          8.345   1.66%
   QC value within limits for Se 196.026  Recovery = 100.74%
Si 251.611†            66560.6      2462.0 ug/L          6.24      2462.0 ppb           6.24   0.25%
   QC value within limits for Si 251.611  Recovery = 98.48%
Sn 189.927†             2150.8      489.34 ug/L         3.648      489.34 ppb          3.648   0.75%
   QC value within limits for Sn 189.927  Recovery = 97.87%
Sr 421.552†            48640.1      482.28 ug/L         2.017      482.28 ppb          2.017   0.42%
   QC value within limits for Sr 421.552  Recovery = 96.46%
Ti 334.940†           284271.3      483.01 ug/L         1.550      483.01 ppb          1.550   0.32%
   QC value within limits for Ti 334.940  Recovery = 96.60%
Tl 190.801†             1267.0      494.67 ug/L         4.704      494.67 ppb          4.704   0.95%
   QC value within limits for Tl 190.801  Recovery = 98.93%
U 409.014†             17338.2      504.65 ug/L         2.261      504.65 ppb          2.261   0.45%
   QC value within limits for U 409.014  Recovery = 100.93%
V 292.402†             62962.7      498.02 ug/L         2.030      498.02 ppb          2.030   0.41%
   QC value within limits for V 292.402  Recovery = 99.60%
Zn 213.857†            40802.5      490.48 ug/L         1.405      490.48 ppb          1.405   0.29%
   QC value within limits for Zn 213.857  Recovery = 98.10%
SiO2†                  66334.1      5197.6 ug/L         40.80      5197.6 ppb          40.80   0.78%
   QC value within limits for SiO2  Recovery = 97.20%
All analyte(s) passed QC.
```

Sequence No.: 110 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/10/2010 06:38:13**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3233.3	3233.3	96.5	%			06:40:26
1	Y RADIAL	2651.4	2651.4	96.65	%			06:40:26
1	Al 396.153Radial†	-61.0	-3.2	-6.7996	ug/L	-6.7996	ppb	06:40:26
1	Ca 317.933Radial†	9.5	-0.4	-1.6391	ug/L	-1.6391	ppb	06:40:26
1	Fe 238.204 Radial†	7.4	-0.9	-25.642	ug/L	-25.642	ppb	06:40:26
1	K 766.490 Radial†	2131.8	94.7	43.343	ug/L	43.343	ppb	06:40:06
1	Mg 279.077 IEC†	2.5	2.1	204.58	ug/L	204.58	ppb	06:40:26
1	Na 589.592 Radial†	-802.7	-49.2	-16.427	ug/L	-16.427	ppb	06:40:06
1	Sr 421.552†	49.2	15.4	0.1523	ug/L	0.1523	ppb	06:40:06
1	Sc 361.383	818942.2	818942.2	98.107	%			06:41:22
1	Y 371.029	700189.0	700189.0	97.838	%			06:41:22
1	Ag 328.068†	151.4	-4.8	-0.0318	ug/L	-0.0318	ppb	06:41:22
1	As 188.979†	-22.8	-7.3	-4.0635	ug/L	-4.0635	ppb	06:41:43
1	B 249.677†	-233.0	-147.3	-4.1246	ug/L	-4.1246	ppb	06:41:43
1	Ba 233.527†	5.4	12.6	0.1172	ug/L	0.1172	ppb	06:41:43
1	Be 313.107†	-3574.4	-30.9	-0.0134	ug/L	-0.0134	ppb	06:41:22
1	Cd 226.502†	-152.6	-13.9	-0.1987	ug/L	-0.1987	ppb	06:41:43
1	Co 228.616†	-34.0	8.9	0.2312	ug/L	0.2312	ppb	06:41:43
1	Cr 267.716†	63.4	-1.1	-0.0150	ug/L	-0.0150	ppb	06:41:43
1	Cu 324.752†	6078.9	125.7	0.4037	ug/L	0.4037	ppb	06:41:22
1	Mn 257.610†	402.3	20.4	0.0158	ug/L	0.0158	ppb	06:41:43
1	Mo 202.031†	10.8	-2.8	-0.2433	ug/L	-0.2433	ppb	06:41:43
1	Ni 231.604†	71.9	20.2	0.6367	ug/L	0.6367	ppb	06:41:43
1	P 214.914†	166.7	-5.5	-4.1943	ug/L	-4.1943	ppb	06:41:43
1	Pb 220.353†	-30.0	13.3	2.0667	ug/L	2.0667	ppb	06:41:43
1	S 181.975 Axial†	33.1	2.9	5.1240	ug/L	5.1240	ppb	06:41:43
1	Sb 206.836†	34.2	6.4	2.6595	ug/L	2.6595	ppb	06:41:43
1	Se 196.026†	-16.7	2.2	1.6904	ug/L	1.6904	ppb	06:41:43
1	Si 251.611†	499.5	56.8	2.1076	ug/L	2.1076	ppb	06:41:43
1	Sn 189.927†	12.8	5.2	1.1941	ug/L	1.1941	ppb	06:41:43
1	Ti 334.940†	-951.9	-10.0	-0.0336	ug/L	-0.0336	ppb	06:41:22
1	Tl 190.801†	-20.2	10.5	4.0591	ug/L	4.0591	ppb	06:41:43
1	U 409.014†	-1987.1	-22.3	-0.6477	ug/L	-0.6477	ppb	06:41:22
1	V 292.402†	-1229.7	-6.7	-0.0489	ug/L	-0.0489	ppb	06:41:22
1	Zn 213.857†	559.3	67.7	0.8204	ug/L	0.8204	ppb	06:41:43
1	SiO2†	505.0	36.2	2.8537	ug/L	2.8537	ppb	06:42:54
2	Sc Radial	3276.0	3276.0	97.8	%			06:40:51
2	Y RADIAL	2664.1	2664.1	97.11	%			06:40:51
2	Al 396.153Radial†	-72.2	-13.8	-29.613	ug/L	-29.613	ppb	06:40:51
2	Ca 317.933Radial†	14.1	4.2	16.707	ug/L	16.707	ppb	06:40:51
2	Fe 238.204 Radial†	7.0	-1.4	-40.009	ug/L	-40.009	ppb	06:40:51
2	K 766.490 Radial†	2057.5	-10.1	-4.6408	ug/L	-4.6408	ppb	06:40:31
2	Mg 279.077 IEC†	3.0	2.6	251.28	ug/L	251.28	ppb	06:40:51
2	Na 589.592 Radial†	-743.8	21.9	7.3220	ug/L	7.3220	ppb	06:40:31
2	Sr 421.552†	3.7	-31.9	-0.3166	ug/L	-0.3166	ppb	06:40:31
2	Sc 361.383	802150.2	802150.2	96.095	%			06:41:48
2	Y 371.029	686434.1	686434.1	95.916	%			06:41:48
2	Ag 328.068†	239.7	90.4	0.4501	ug/L	0.4501	ppb	06:41:48
2	As 188.979†	-20.0	-4.9	-2.7340	ug/L	-2.7340	ppb	06:42:08
2	B 249.677†	-264.2	-184.7	-5.1713	ug/L	-5.1713	ppb	06:42:08
2	Ba 233.527†	-5.9	1.1	0.0096	ug/L	0.0096	ppb	06:42:08
2	Be 313.107†	-3474.1	-2.7	-0.0011	ug/L	-0.0011	ppb	06:41:48
2	Cd 226.502†	-158.5	-23.4	-0.3352	ug/L	-0.3352	ppb	06:42:08
2	Co 228.616†	-41.9	-0.0	-0.0003	ug/L	-0.0003	ppb	06:42:08
2	Cr 267.716†	73.1	10.3	0.1352	ug/L	0.1352	ppb	06:42:08
2	Cu 324.752†	6010.3	184.1	0.5934	ug/L	0.5934	ppb	06:41:48
2	Mn 257.610†	397.7	24.2	0.0175	ug/L	0.0175	ppb	06:42:08
2	Mo 202.031†	13.6	0.3	0.0266	ug/L	0.0266	ppb	06:42:08
2	Ni 231.604†	67.2	16.9	0.5338	ug/L	0.5338	ppb	06:42:08

2	P 214.914†	176.1	7.8	5.8515	ug/L	5.8515	ppb	06:42:08
2	Pb 220.353†	-54.6	-12.9	-1.9997	ug/L	-1.9997	ppb	06:42:08
2	S 181.975 Axial†	24.9	-5.0	-8.8276	ug/L	-8.8276	ppb	06:42:08
2	Sb 206.836†	24.8	-2.7	-1.0940	ug/L	-1.0940	ppb	06:42:08
2	Se 196.026†	-17.0	1.6	1.1636	ug/L	1.1636	ppb	06:42:08
2	Si 251.611†	497.0	64.8	2.4008	ug/L	2.4008	ppb	06:42:08
2	Sn 189.927†	8.0	0.5	0.1259	ug/L	0.1259	ppb	06:42:08
2	Ti 334.940†	-909.7	13.6	0.0073	ug/L	0.0073	ppb	06:41:48
2	Tl 190.801†	-21.8	8.3	3.2385	ug/L	3.2385	ppb	06:42:08
2	U 409.014†	-2109.9	-192.4	-5.6157	ug/L	-5.6157	ppb	06:41:48
2	V 292.402†	-1158.7	41.0	0.3202	ug/L	0.3202	ppb	06:41:48
2	Zn 213.857†	559.4	79.6	0.9679	ug/L	0.9679	ppb	06:42:08
2	SiO2†	520.1	62.7	4.9281	ug/L	4.9281	ppb	06:43:14
3	Sc Radial	3249.5	3249.5	97.0	%			06:41:16
3	Y RADIAL	2637.2	2637.2	96.14	%			06:41:16
3	Al 396.153Radial†	-60.4	-2.2	-4.7302	ug/L	-4.7302	ppb	06:41:16
3	Ca 317.933Radial†	12.4	2.5	10.006	ug/L	10.006	ppb	06:41:16
3	Fe 238.204 Radial†	8.2	-0.2	-5.0040	ug/L	-5.0040	ppb	06:41:16
3	K 766.490 Radial†	2140.4	92.5	42.342	ug/L	42.342	ppb	06:40:56
3	Mg 279.077 IEC†	1.7	1.3	124.14	ug/L	124.14	ppb	06:41:16
3	Na 589.592 Radial†	-777.1	-18.7	-6.2358	ug/L	-6.2358	ppb	06:40:56
3	Sr 421.552†	26.2	-8.7	-0.0859	ug/L	-0.0859	ppb	06:40:56
3	Sc 361.383	826425.6	826425.6	99.003	%			06:42:13
3	Y 371.029	707537.3	707537.3	98.864	%			06:42:13
3	Ag 328.068†	126.9	-30.9	-0.1570	ug/L	-0.1570	ppb	06:42:13
3	As 188.979†	-15.2	0.6	0.3487	ug/L	0.3487	ppb	06:42:33
3	B 249.677†	-247.5	-159.8	-4.4793	ug/L	-4.4793	ppb	06:42:33
3	Ba 233.527†	6.0	13.2	0.1246	ug/L	0.1246	ppb	06:42:33
3	Be 313.107†	-3621.9	-45.8	-0.0196	ug/L	-0.0196	ppb	06:42:13
3	Cd 226.502†	-157.2	-17.2	-0.2472	ug/L	-0.2472	ppb	06:42:33
3	Co 228.616†	-39.5	3.6	0.0938	ug/L	0.0938	ppb	06:42:33
3	Cr 267.716†	59.5	-5.7	-0.0742	ug/L	-0.0742	ppb	06:42:33
3	Cu 324.752†	6145.9	137.3	0.4408	ug/L	0.4408	ppb	06:42:13
3	Mn 257.610†	410.6	25.0	0.0272	ug/L	0.0272	ppb	06:42:33
3	Mo 202.031†	9.7	-4.0	-0.3436	ug/L	-0.3436	ppb	06:42:33
3	Ni 231.604†	84.9	32.8	1.0325	ug/L	1.0325	ppb	06:42:33
3	P 214.914†	172.4	-1.2	-1.0427	ug/L	-1.0427	ppb	06:42:33
3	Pb 220.353†	-41.6	1.9	0.2905	ug/L	0.2905	ppb	06:42:33
3	S 181.975 Axial†	29.4	-1.2	-2.1322	ug/L	-2.1322	ppb	06:42:33
3	Sb 206.836†	27.7	-0.5	-0.2379	ug/L	-0.2379	ppb	06:42:33
3	Se 196.026†	-14.8	4.3	3.4728	ug/L	3.4728	ppb	06:42:33
3	Si 251.611†	500.5	53.1	1.9733	ug/L	1.9733	ppb	06:42:33
3	Sn 189.927†	1.0	-6.8	-1.5466	ug/L	-1.5466	ppb	06:42:33
3	Ti 334.940†	-899.1	52.1	0.0791	ug/L	0.0791	ppb	06:42:13
3	Tl 190.801†	-24.3	6.6	2.5464	ug/L	2.5464	ppb	06:42:33
3	U 409.014†	-1926.9	56.8	1.6601	ug/L	1.6601	ppb	06:42:13
3	V 292.402†	-1164.2	70.8	0.5543	ug/L	0.5543	ppb	06:42:13
3	Zn 213.857†	559.0	62.2	0.7479	ug/L	0.7479	ppb	06:42:33
3	SiO2†	511.6	38.3	3.0153	ug/L	3.0153	ppb	06:43:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	815839.3	97.735	%	1.4893				1.52%
Sc Radial	3252.9	97.1	%	0.64				0.66%
Y 371.029	698053.5	97.539	%	1.4969				1.53%
Y RADIAL	2650.9	96.63	%	0.490				0.51%
Ag 328.068†	18.2	0.0871	ug/L	0.32050	0.0871	ppb	0.32050	367.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.4	-13.714	ug/L	13.8074	-13.714	ppb	13.8074	100.68%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.9	-2.1496	ug/L	2.26343	-2.1496	ppb	2.26343	105.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-163.9	-4.5917	ug/L	0.53231	-4.5917	ppb	0.53231	11.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.0	0.0838	ug/L	0.06434	0.0838	ppb	0.06434	76.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-26.5	-0.0113	ug/L	0.00939	-0.0113	ppb	0.00939	82.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.1	8.3578	ug/L	9.28329	8.3578	ppb	9.28329	111.07%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -18.2     -0.2604 ug/L       0.06918     -0.2604 ppb        0.06918  26.57%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.2      0.1083 ug/L       0.11644      0.1083 ppb        0.11644 107.55%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                1.2      0.0153 ug/L       0.10796      0.0153 ppb        0.10796 704.94%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              149.1      0.4793 ug/L       0.10056      0.4793 ppb        0.10056  20.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.8     -23.552 ug/L       17.5960     -23.552 ppb        17.5960  74.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         59.0      27.015 ug/L       27.4190      27.015 ppb        27.4190 101.50%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.0     193.33 ug/L        64.312      193.33 ppb         64.312  33.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               23.2      0.0202 ug/L       0.00615      0.0202 ppb        0.00615  30.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -2.1     -0.1868 ug/L       0.19148     -0.1868 ppb        0.19148 102.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -15.3     -5.1137 ug/L      11.91440     -5.1137 ppb       11.91440 232.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               23.3      0.7344 ug/L       0.26326      0.7344 ppb        0.26326  35.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.4      0.2048 ug/L       5.13776      0.2048 ppb        5.13776 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                0.8      0.1191 ug/L       2.03859      0.1191 ppb        2.03859 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.1     -1.9453 ug/L       6.97766     -1.9453 ppb        6.97766 358.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.1      0.4426 ug/L       1.96708      0.4426 ppb        1.96708 444.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.7      2.1090 ug/L       1.21014      2.1090 ppb        1.21014  57.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               58.2      2.1606 ug/L       0.21863      2.1606 ppb        0.21863  10.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.3     -0.0755 ug/L       1.38139     -0.0755 ppb        1.38139 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -8.4     -0.0834 ug/L       0.23447     -0.0834 ppb        0.23447 281.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               18.6      0.0176 ug/L       0.05706      0.0176 ppb        0.05706 324.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.5      3.2813 ug/L       0.75725      3.2813 ppb        0.75725  23.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -52.6     -1.5345 ug/L       3.71807     -1.5345 ppb        3.71807 242.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                35.1      0.2752 ug/L       0.30411      0.2752 ppb        0.30411 110.51%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               69.8      0.8454 ug/L       0.11212      0.8454 ppb        0.11212  13.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     45.8      3.5990 ug/L       1.15381      3.5990 ppb        1.15381  32.06%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 121 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/10/2010 07:55:54**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3265.4	3265.4	97.5	%			07:58:06
1	Y RADIAL	2642.7	2642.7	96.33	%			07:58:06
1	Al 396.153Radial†	2198.4	2315.7	4952.2	ug/L	4952.2	ppb	07:57:46
1	Ca 317.933Radial†	1269.7	1292.5	5129.5	ug/L	5129.5	ppb	07:58:06
1	Fe 238.204 Radial†	189.3	185.6	5173.0	ug/L	5173.0	ppb	07:58:06
1	K 766.490 Radial†	12709.1	10925.6	4995.1	ug/L	4995.1	ppb	07:57:46
1	Mg 279.077 IEC†	54.2	55.1	5351.1	ug/L	5351.1	ppb	07:58:06
1	Na 589.592 Radial†	27915.7	29425.2	9826.7	ug/L	9826.7	ppb	07:57:46
1	Sr 421.552†	50266.4	51539.6	511.03	ug/L	511.03	ppb	07:57:46
1	Sc 361.383	822770.4	822770.4	98.565	%			07:59:03
1	Y 371.029	695752.0	695752.0	97.218	%			07:59:03
1	Ag 328.068†	98708.2	99985.7	508.30	ug/L	508.30	ppb	07:59:09
1	As 188.979†	879.6	908.4	509.25	ug/L	509.25	ppb	07:59:29
1	B 249.677†	17194.4	17534.8	489.24	ug/L	489.24	ppb	07:59:09
1	Ba 233.527†	52983.3	53761.6	503.37	ug/L	503.37	ppb	07:59:09
1	Be 313.107†	1155265.1	1175691.2	508.51	ug/L	508.51	ppb	07:59:03
1	Cd 226.502†	34265.3	34905.6	504.47	ug/L	504.47	ppb	07:59:09
1	Co 228.616†	19403.6	19729.5	511.76	ug/L	511.76	ppb	07:59:09
1	Cr 267.716†	38151.4	38640.9	504.74	ug/L	504.74	ppb	07:59:09
1	Cu 324.752†	159300.9	155548.9	500.57	ug/L	500.57	ppb	07:59:09
1	Mn 257.610†	378699.8	383821.6	503.26	ug/L	503.26	ppb	07:59:03
1	Mo 202.031†	5820.4	5891.3	508.96	ug/L	508.96	ppb	07:59:29
1	Ni 231.604†	16076.4	16257.3	512.11	ug/L	512.11	ppb	07:59:09
1	P 214.914†	3460.7	3335.7	2436.0	ug/L	2436.0	ppb	07:59:29
1	Pb 220.353†	3203.9	3294.5	511.55	ug/L	511.55	ppb	07:59:29
1	S 181.975 Axial†	587.1	564.8	1006.5	ug/L	1006.5	ppb	07:59:29
1	Sb 206.836†	1262.7	1252.6	537.38	ug/L	537.38	ppb	07:59:29
1	Se 196.026†	612.3	640.4	538.23	ug/L	538.23	ppb	07:59:29
1	Si 251.611†	67045.6	67569.0	2499.1	ug/L	2499.1	ppb	07:59:09
1	Sn 189.927†	2224.5	2249.0	511.67	ug/L	511.67	ppb	07:59:29
1	Ti 334.940†	285302.6	290415.1	493.44	ug/L	493.44	ppb	07:59:09
1	Tl 190.801†	1273.6	1323.2	516.58	ug/L	516.58	ppb	07:59:29
1	U 409.014†	15373.2	17600.1	512.25	ug/L	512.25	ppb	07:59:09
1	V 292.402†	62245.0	64397.7	509.52	ug/L	509.52	ppb	07:59:09
1	Zn 213.857†	41647.4	41751.1	501.87	ug/L	501.87	ppb	07:59:09
1	SiO2†	67219.3	67719.1	5305.8	ug/L	5305.8	ppb	08:00:36
2	Sc Radial	3265.2	3265.2	97.5	%			07:58:31
2	Y RADIAL	2646.3	2646.3	96.47	%			07:58:31
2	Al 396.153Radial†	2185.3	2302.4	4923.7	ug/L	4923.7	ppb	07:58:11
2	Ca 317.933Radial†	1254.7	1277.2	5068.7	ug/L	5068.7	ppb	07:58:31
2	Fe 238.204 Radial†	186.7	182.9	5099.0	ug/L	5099.0	ppb	07:58:31
2	K 766.490 Radial†	12619.0	10834.1	4953.3	ug/L	4953.3	ppb	07:58:11
2	Mg 279.077 IEC†	51.7	52.6	5106.4	ug/L	5106.4	ppb	07:58:31
2	Na 589.592 Radial†	27398.2	28896.1	9650.0	ug/L	9650.0	ppb	07:58:11
2	Sr 421.552†	49253.2	50503.5	500.76	ug/L	500.76	ppb	07:58:11
2	Sc 361.383	830112.0	830112.0	99.445	%			07:59:35
2	Y 371.029	703319.6	703319.6	98.275	%			07:59:35
2	Ag 328.068†	101044.0	101448.9	515.70	ug/L	515.70	ppb	07:59:40
2	As 188.979†	881.0	901.9	505.70	ug/L	505.70	ppb	08:00:00
2	B 249.677†	17782.3	17971.8	501.49	ug/L	501.49	ppb	07:59:40
2	Ba 233.527†	54199.6	54509.2	510.37	ug/L	510.37	ppb	07:59:40
2	Be 313.107†	1177688.3	1187873.7	513.79	ug/L	513.79	ppb	07:59:35
2	Cd 226.502†	34932.6	35269.1	509.73	ug/L	509.73	ppb	07:59:40
2	Co 228.616†	19830.9	19985.2	518.37	ug/L	518.37	ppb	07:59:40
2	Cr 267.716†	39091.5	39243.9	512.61	ug/L	512.61	ppb	07:59:40
2	Cu 324.752†	163624.7	158467.5	509.96	ug/L	509.96	ppb	07:59:40
2	Mn 257.610†	384802.9	386560.8	506.85	ug/L	506.85	ppb	07:59:35
2	Mo 202.031†	5852.6	5871.5	507.24	ug/L	507.24	ppb	08:00:00
2	Ni 231.604†	16425.6	16464.3	518.63	ug/L	518.63	ppb	07:59:40

2	P 214.914†	3483.4	3327.5	2428.0 ug/L	2428.0 ppb	08:00:00
2	Pb 220.353†	3239.2	3301.2	512.58 ug/L	512.58 ppb	08:00:00
2	S 181.975 Axial†	588.7	561.1	999.84 ug/L	999.84 ppb	08:00:00
2	Sb 206.836†	1255.6	1234.1	529.72 ug/L	529.72 ppb	08:00:00
2	Se 196.026†	610.4	633.0	531.99 ug/L	531.99 ppb	08:00:00
2	Si 251.611†	68735.7	68666.9	2539.8 ug/L	2539.8 ppb	07:59:40
2	Sn 189.927†	2250.4	2255.1	513.04 ug/L	513.04 ppb	08:00:00
2	Ti 334.940†	292576.4	295169.5	501.52 ug/L	501.52 ppb	07:59:40
2	Tl 190.801†	1279.1	1317.3	514.32 ug/L	514.32 ppb	08:00:00
2	U 409.014†	15833.7	17925.3	521.74 ug/L	521.74 ppb	07:59:40
2	V 292.402†	63903.3	65506.7	518.16 ug/L	518.16 ppb	07:59:40
2	Zn 213.857†	42467.5	42202.1	507.30 ug/L	507.30 ppb	07:59:40
2	SiO2†	65863.3	65752.5	5151.3 ug/L	5151.3 ppb	08:00:41
3	Sc Radial	3247.3	3247.3	96.9 %		07:58:56
3	Y RADIAL	2629.9	2629.9	95.87 %		07:58:56
3	Al 396.153Radial†	2193.3	2323.0	4967.9 ug/L	4967.9 ppb	07:58:36
3	Ca 317.933Radial†	1258.9	1288.7	5114.2 ug/L	5114.2 ppb	07:58:56
3	Fe 238.204 Radial†	186.6	183.9	5126.1 ug/L	5126.1 ppb	07:58:56
3	K 766.490 Radial†	12665.1	10953.0	5007.6 ug/L	5007.6 ppb	07:58:36
3	Mg 279.077 IEC†	53.1	54.3	5271.6 ug/L	5271.6 ppb	07:58:56
3	Na 589.592 Radial†	28015.9	29688.4	9914.6 ug/L	9914.6 ppb	07:58:36
3	Sr 421.552†	49930.4	51480.8	510.45 ug/L	510.45 ppb	07:58:36
3	Sc 361.383	815407.7	815407.7	97.683 %		08:00:06
3	Y 371.029	690041.7	690041.7	96.420 %		08:00:06
3	Ag 328.068†	99856.5	102065.5	518.84 ug/L	518.84 ppb	08:00:11
3	As 188.979†	874.1	910.7	510.64 ug/L	510.64 ppb	08:00:31
3	B 249.677†	17560.7	18067.3	504.14 ug/L	504.14 ppb	08:00:11
3	Ba 233.527†	53852.6	55136.8	516.24 ug/L	516.24 ppb	08:00:11
3	Be 313.107†	1180214.6	1211815.7	524.13 ug/L	524.13 ppb	08:00:06
3	Cd 226.502†	34775.9	35742.1	516.57 ug/L	516.57 ppb	08:00:11
3	Co 228.616†	19763.2	20275.4	525.90 ug/L	525.90 ppb	08:00:11
3	Cr 267.716†	38801.0	39655.4	517.98 ug/L	517.98 ppb	08:00:11
3	Cu 324.752†	161076.6	158826.0	511.11 ug/L	511.11 ppb	08:00:11
3	Mn 257.610†	385625.7	394381.1	517.09 ug/L	517.09 ppb	08:00:06
3	Mo 202.031†	5767.1	5890.1	508.85 ug/L	508.85 ppb	08:00:31
3	Ni 231.604†	16302.4	16636.0	524.03 ug/L	524.03 ppb	08:00:11
3	P 214.914†	3439.4	3345.6	2441.4 ug/L	2441.4 ppb	08:00:31
3	Pb 220.353†	3149.4	3268.1	507.46 ug/L	507.46 ppb	08:00:31
3	S 181.975 Axial†	577.6	560.5	998.75 ug/L	998.75 ppb	08:00:31
3	Sb 206.836†	1236.6	1237.4	531.06 ug/L	531.06 ppb	08:00:31
3	Se 196.026†	589.6	622.8	523.82 ug/L	523.82 ppb	08:00:31
3	Si 251.611†	67874.3	69031.5	2553.3 ug/L	2553.3 ppb	08:00:11
3	Sn 189.927†	2192.6	2236.8	508.89 ug/L	508.89 ppb	08:00:31
3	Ti 334.940†	289232.1	297051.5	504.71 ug/L	504.71 ppb	08:00:11
3	Tl 190.801†	1261.9	1322.9	516.53 ug/L	516.53 ppb	08:00:31
3	U 409.014†	15568.4	17940.8	522.17 ug/L	522.17 ppb	08:00:11
3	V 292.402†	63226.4	65972.6	521.82 ug/L	521.82 ppb	08:00:11
3	Zn 213.857†	42138.8	42635.7	512.52 ug/L	512.52 ppb	08:00:11
3	SiO2†	67228.6	68344.5	5354.9 ug/L	5354.9 ppb	08:00:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	822763.4	98.565	%	0.8808				0.89%
Sc Radial	3259.3	97.3	%	0.31				0.32%
Y 371.029	696371.1	97.304	%	0.9307				0.96%
Y RADIAL	2639.6	96.22	%	0.315				0.33%
Ag 328.068†	101166.7	514.28	ug/L	5.409	514.28	ppb	5.409	1.05%
QC value within limits for Ag 328.068 Recovery = 102.86%								
Al 396.153Radial†	2313.7	4947.9	ug/L	22.40	4947.9	ppb	22.40	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.96%								
As 188.979†	907.0	508.53	ug/L	2.550	508.53	ppb	2.550	0.50%
QC value within limits for As 188.979 Recovery = 101.71%								
B 249.677†	17858.0	498.29	ug/L	7.945	498.29	ppb	7.945	1.59%
QC value within limits for B 249.677 Recovery = 99.66%								
Ba 233.527†	54469.2	509.99	ug/L	6.443	509.99	ppb	6.443	1.26%
QC value within limits for Ba 233.527 Recovery = 102.00%								
Be 313.107†	1191793.5	515.47	ug/L	7.944	515.47	ppb	7.944	1.54%
QC value within limits for Be 313.107 Recovery = 103.09%								
Ca 317.933Radial†	1286.1	5104.1	ug/L	31.59	5104.1	ppb	31.59	0.62%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.08%
Cd 226.502†            35305.6      510.26 ug/L         6.071      510.26 ppb          6.071   1.19%
   QC value within limits for Cd 226.502  Recovery = 102.05%
Co 228.616†            19996.7      518.68 ug/L         7.072      518.68 ppb          7.072   1.36%
   QC value within limits for Co 228.616  Recovery = 103.74%
Cr 267.716†            39180.1      511.78 ug/L         6.661      511.78 ppb          6.661   1.30%
   QC value within limits for Cr 267.716  Recovery = 102.36%
Cu 324.752†           157614.1      507.21 ug/L         5.780      507.21 ppb          5.780   1.14%
   QC value within limits for Cu 324.752  Recovery = 101.44%
Fe 238.204 Radial†       184.1      5132.7 ug/L        37.43      5132.7 ppb         37.43   0.73%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.65%
K 766.490 Radial†      10904.2      4985.3 ug/L        28.43      4985.3 ppb         28.43   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 99.71%
Mg 279.077 IEC†           54.0      5243.0 ug/L       124.78      5243.0 ppb        124.78   2.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.86%
Mn 257.610†           388254.5      509.07 ug/L         7.179      509.07 ppb          7.179   1.41%
   QC value within limits for Mn 257.610  Recovery = 101.81%
Mo 202.031†             5884.3      508.35 ug/L         0.961      508.35 ppb          0.961   0.19%
   QC value within limits for Mo 202.031  Recovery = 101.67%
Na 589.592 Radial†     29336.6      9797.1 ug/L       134.76      9797.1 ppb        134.76   1.38%
   QC value within limits for Na 589.592 Radial  Recovery = 97.97%
Ni 231.604†            16452.5      518.25 ug/L         5.971      518.25 ppb          5.971   1.15%
   QC value within limits for Ni 231.604  Recovery = 103.65%
P 214.914†              3336.3      2435.1 ug/L          6.77      2435.1 ppb           6.77   0.28%
   QC value within limits for P 214.914  Recovery = 97.40%
Pb 220.353†             3287.9      510.53 ug/L         2.708      510.53 ppb          2.708   0.53%
   QC value within limits for Pb 220.353  Recovery = 102.11%
S 181.975 Axial†         562.1      1001.7 ug/L          4.20      1001.7 ppb           4.20   0.42%
   QC value within limits for S 181.975 Axial  Recovery = 100.17%
Sb 206.836†             1241.4      532.72 ug/L         4.091      532.72 ppb          4.091   0.77%
   QC value within limits for Sb 206.836  Recovery = 106.54%
Se 196.026†              632.1      531.35 ug/L         7.226      531.35 ppb          7.226   1.36%
   QC value within limits for Se 196.026  Recovery = 106.27%
Si 251.611†            68422.5      2530.7 ug/L        28.23      2530.7 ppb         28.23   1.12%
   QC value within limits for Si 251.611  Recovery = 101.23%
Sn 189.927†             2247.0      511.20 ug/L         2.115      511.20 ppb          2.115   0.41%
   QC value within limits for Sn 189.927  Recovery = 102.24%
Sr 421.552†            51174.6      507.41 ug/L         5.770      507.41 ppb          5.770   1.14%
   QC value within limits for Sr 421.552  Recovery = 101.48%
Ti 334.940†           294212.0      499.89 ug/L         5.812      499.89 ppb          5.812   1.16%
   QC value within limits for Ti 334.940  Recovery = 99.98%
Tl 190.801†             1321.2      515.81 ug/L         1.292      515.81 ppb          1.292   0.25%
   QC value within limits for Tl 190.801  Recovery = 103.16%
U 409.014†             17822.0      518.72 ug/L         5.608      518.72 ppb          5.608   1.08%
   QC value within limits for U 409.014  Recovery = 103.74%
V 292.402†             65292.3      516.50 ug/L         6.317      516.50 ppb          6.317   1.22%
   QC value within limits for V 292.402  Recovery = 103.30%
Zn 213.857†            42196.3      507.23 ug/L         5.325      507.23 ppb          5.325   1.05%
   QC value within limits for Zn 213.857  Recovery = 101.45%
SiO2†                  67272.0      5270.6 ug/L       106.23      5270.6 ppb        106.23   2.02%
   QC value within limits for SiO2  Recovery = 98.56%
All analyte(s) passed QC.
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Sequence No.: 122 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/10/2010 08:02:56**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3106.0	3106.0	92.7	%			08:05:09
1	Y RADIAL	2534.1	2534.1	92.37	%			08:05:09
1	Al 396.153Radial†	-69.4	-14.8	-31.945	ug/L	-31.945	ppb	08:05:09
1	Ca 317.933Radial†	7.6	-2.1	-8.2058	ug/L	-8.2058	ppb	08:05:09
1	Fe 238.204 Radial†	5.8	-2.4	-66.455	ug/L	-66.455	ppb	08:05:09
1	K 766.490 Radial†	2072.5	121.1	55.460	ug/L	55.460	ppb	08:04:49
1	Mg 279.077 IEC†	1.4	1.0	100.54	ug/L	100.54	ppb	08:05:09
1	Na 589.592 Radial†	-825.7	-108.1	-36.093	ug/L	-36.093	ppb	08:04:49
1	Sr 421.552†	60.0	29.0	0.2880	ug/L	0.2880	ppb	08:04:49
1	Sc 361.383	804342.9	804342.9	96.358	%			08:06:06
1	Y 371.029	689040.1	689040.1	96.280	%			08:06:06
1	Ag 328.068†	193.3	41.6	0.1882	ug/L	0.1882	ppb	08:06:06
1	As 188.979†	-18.3	-3.0	-1.7096	ug/L	-1.7096	ppb	08:06:26
1	B 249.677†	-223.5	-141.7	-3.9620	ug/L	-3.9620	ppb	08:06:26
1	Ba 233.527†	-1.2	5.9	0.0529	ug/L	0.0529	ppb	08:06:26
1	Be 313.107†	-3542.2	-63.5	-0.0275	ug/L	-0.0275	ppb	08:06:06
1	Cd 226.502†	-151.6	-15.8	-0.2204	ug/L	-0.2204	ppb	08:06:26
1	Co 228.616†	-43.7	-1.8	-0.0433	ug/L	-0.0433	ppb	08:06:26
1	Cr 267.716†	55.2	-8.4	-0.1133	ug/L	-0.1133	ppb	08:06:26
1	Cu 324.752†	6061.8	220.5	0.7055	ug/L	0.7055	ppb	08:06:06
1	Mn 257.610†	389.9	15.0	0.0090	ug/L	0.0090	ppb	08:06:26
1	Mo 202.031†	24.2	11.3	0.9718	ug/L	0.9718	ppb	08:06:26
1	Ni 231.604†	77.1	27.0	0.8506	ug/L	0.8506	ppb	08:06:26
1	P 214.914†	172.1	3.2	2.3318	ug/L	2.3318	ppb	08:06:26
1	Pb 220.353†	-37.0	5.6	0.8649	ug/L	0.8649	ppb	08:06:26
1	S 181.975 Axial†	32.2	2.6	4.5947	ug/L	4.5947	ppb	08:06:26
1	Sb 206.836†	31.5	4.2	1.7352	ug/L	1.7352	ppb	08:06:26
1	Se 196.026†	-25.8	-7.5	-6.3200	ug/L	-6.3200	ppb	08:06:26
1	Si 251.611†	495.0	61.3	2.2595	ug/L	2.2595	ppb	08:06:26
1	Sn 189.927†	0.4	-7.4	-1.6838	ug/L	-1.6838	ppb	08:06:26
1	Ti 334.940†	-934.5	-9.6	-0.0261	ug/L	-0.0261	ppb	08:06:06
1	Tl 190.801†	-24.5	5.6	2.1883	ug/L	2.1883	ppb	08:06:26
1	U 409.014†	-1895.5	36.1	1.0606	ug/L	1.0606	ppb	08:06:06
1	V 292.402†	-1214.8	-13.9	-0.0813	ug/L	-0.0813	ppb	08:06:06
1	Zn 213.857†	485.2	1.1	0.0164	ug/L	0.0164	ppb	08:06:26
1	SiO2†	487.7	27.7	2.1459	ug/L	2.1459	ppb	08:07:37
2	Sc Radial	3189.6	3189.6	95.2	%			08:05:34
2	Y RADIAL	2595.7	2595.7	94.62	%			08:05:34
2	Al 396.153Radial†	-66.6	-9.9	-21.214	ug/L	-21.214	ppb	08:05:34
2	Ca 317.933Radial†	4.7	-5.3	-20.892	ug/L	-20.892	ppb	08:05:34
2	Fe 238.204 Radial†	8.3	0.1	2.0849	ug/L	2.0849	ppb	08:05:34
2	K 766.490 Radial†	2129.9	122.9	56.277	ug/L	56.277	ppb	08:05:14
2	Mg 279.077 IEC†	2.5	2.1	207.69	ug/L	207.69	ppb	08:05:34
2	Na 589.592 Radial†	-759.6	-15.3	-5.1126	ug/L	-5.1126	ppb	08:05:14
2	Sr 421.552†	24.1	-10.4	-0.1031	ug/L	-0.1031	ppb	08:05:14
2	Sc 361.383	819741.9	819741.9	98.203	%			08:06:31
2	Y 371.029	702802.0	702802.0	98.203	%			08:06:31
2	Ag 328.068†	177.0	21.1	0.1077	ug/L	0.1077	ppb	08:06:31
2	As 188.979†	-20.3	-4.7	-2.5950	ug/L	-2.5950	ppb	08:06:51
2	B 249.677†	-224.0	-137.9	-3.8658	ug/L	-3.8658	ppb	08:06:51
2	Ba 233.527†	15.3	22.7	0.2124	ug/L	0.2124	ppb	08:06:51
2	Be 313.107†	-3564.1	-16.8	-0.0070	ug/L	-0.0070	ppb	08:06:31
2	Cd 226.502†	-145.8	-6.9	-0.0993	ug/L	-0.0993	ppb	08:06:51
2	Co 228.616†	-32.7	10.2	0.2629	ug/L	0.2629	ppb	08:06:51
2	Cr 267.716†	61.4	-3.2	-0.0423	ug/L	-0.0423	ppb	08:06:51
2	Cu 324.752†	6103.4	144.7	0.4654	ug/L	0.4654	ppb	08:06:31
2	Mn 257.610†	402.9	20.6	0.0187	ug/L	0.0187	ppb	08:06:51
2	Mo 202.031†	4.9	-8.8	-0.7571	ug/L	-0.7571	ppb	08:06:51
2	Ni 231.604†	83.5	32.0	1.0088	ug/L	1.0088	ppb	08:06:51

2	P 214.914†	170.0	-2.3	-1.8873	ug/L	-1.8873	ppb	08:06:51
2	Pb 220.353†	-50.9	-8.0	-1.2385	ug/L	-1.2385	ppb	08:06:51
2	S 181.975 Axial†	27.7	-2.6	-4.7128	ug/L	-4.7128	ppb	08:06:51
2	Sb 206.836†	26.6	-1.4	-0.6320	ug/L	-0.6320	ppb	08:06:51
2	Se 196.026†	-18.8	0.1	0.0518	ug/L	0.0518	ppb	08:06:51
2	Si 251.611†	512.1	69.1	2.5705	ug/L	2.5705	ppb	08:06:51
2	Sn 189.927†	-1.8	-9.6	-2.1914	ug/L	-2.1914	ppb	08:06:51
2	Ti 334.940†	-887.1	57.0	0.0769	ug/L	0.0769	ppb	08:06:31
2	Tl 190.801†	-13.1	17.7	6.8729	ug/L	6.8729	ppb	08:06:51
2	U 409.014†	-1954.9	12.5	0.3655	ug/L	0.3655	ppb	08:06:31
2	V 292.402†	-1215.3	9.2	0.0657	ug/L	0.0657	ppb	08:06:31
2	Zn 213.857†	495.5	2.1	0.0185	ug/L	0.0185	ppb	08:06:51
2	SiO2†	490.8	21.3	1.6918	ug/L	1.6918	ppb	08:07:57
3	Sc Radial	3199.6	3199.6	95.5	%			08:05:59
3	Y RADIAL	2612.4	2612.4	95.23	%			08:05:59
3	Al 396.153Radial†	-65.6	-8.7	-18.687	ug/L	-18.687	ppb	08:05:59
3	Ca 317.933Radial†	12.3	2.7	10.586	ug/L	10.586	ppb	08:05:59
3	Fe 238.204 Radial†	8.1	-0.1	-4.0539	ug/L	-4.0539	ppb	08:05:59
3	K 766.490 Radial†	2085.7	69.6	31.855	ug/L	31.855	ppb	08:05:39
3	Mg 279.077 IEC†	3.4	3.1	304.06	ug/L	304.06	ppb	08:05:59
3	Na 589.592 Radial†	-772.9	-26.7	-8.9239	ug/L	-8.9239	ppb	08:05:39
3	Sr 421.552†	22.7	-11.9	-0.1180	ug/L	-0.1180	ppb	08:05:39
3	Sc 361.383	804655.5	804655.5	96.395	%			08:06:56
3	Y 371.029	690652.6	690652.6	96.505	%			08:06:56
3	Ag 328.068†	153.0	-0.3	-0.0001	ug/L	-0.0001	ppb	08:06:56
3	As 188.979†	-16.6	-1.3	-0.7147	ug/L	-0.7147	ppb	08:07:16
3	B 249.677†	-251.5	-170.7	-4.7826	ug/L	-4.7826	ppb	08:07:16
3	Ba 233.527†	-2.3	4.8	0.0446	ug/L	0.0446	ppb	08:07:16
3	Be 313.107†	-3435.0	49.1	0.0214	ug/L	0.0214	ppb	08:06:56
3	Cd 226.502†	-149.2	-13.2	-0.1909	ug/L	-0.1909	ppb	08:07:16
3	Co 228.616†	-50.9	-9.2	-0.2378	ug/L	-0.2378	ppb	08:07:16
3	Cr 267.716†	58.2	-5.4	-0.0690	ug/L	-0.0690	ppb	08:07:16
3	Cu 324.752†	6040.3	195.7	0.6317	ug/L	0.6317	ppb	08:06:56
3	Mn 257.610†	399.2	24.5	0.0192	ug/L	0.0192	ppb	08:07:16
3	Mo 202.031†	18.0	4.9	0.4189	ug/L	0.4189	ppb	08:07:16
3	Ni 231.604†	84.8	34.9	1.1000	ug/L	1.1000	ppb	08:07:16
3	P 214.914†	168.7	-0.4	-0.3874	ug/L	-0.3874	ppb	08:07:16
3	Pb 220.353†	-56.8	-15.0	-2.3326	ug/L	-2.3326	ppb	08:07:16
3	S 181.975 Axial†	28.6	-1.2	-2.0826	ug/L	-2.0826	ppb	08:07:16
3	Sb 206.836†	33.3	6.0	2.5262	ug/L	2.5262	ppb	08:07:16
3	Se 196.026†	-20.6	-2.1	-1.7297	ug/L	-1.7297	ppb	08:07:16
3	Si 251.611†	485.1	50.8	1.8798	ug/L	1.8798	ppb	08:07:16
3	Sn 189.927†	11.8	4.4	0.9990	ug/L	0.9990	ppb	08:07:16
3	Ti 334.940†	-874.3	53.2	0.0687	ug/L	0.0687	ppb	08:06:56
3	Tl 190.801†	-25.7	4.4	1.7002	ug/L	1.7002	ppb	08:07:16
3	U 409.014†	-2048.0	-121.5	-3.5464	ug/L	-3.5464	ppb	08:06:56
3	V 292.402†	-1201.2	0.7	0.0107	ug/L	0.0107	ppb	08:06:56
3	Zn 213.857†	490.1	5.9	0.0649	ug/L	0.0649	ppb	08:07:16
3	SiO2†	489.7	29.6	2.3108	ug/L	2.3108	ppb	08:08:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	809580.1	96.985	%	1.0544				1.09%
Sc Radial	3165.0	94.5	%	1.53				1.62%
Y 371.029	694164.9	96.996	%	1.0512				1.08%
Y RADIAL	2580.7	94.08	%	1.505				1.60%
Ag 328.068†	20.8	0.0986	ug/L	0.09450	0.0986	ppb	0.09450	95.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.1	-23.949	ug/L	7.0395	-23.949	ppb	7.0395	29.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.0	-1.6731	ug/L	0.94067	-1.6731	ppb	0.94067	56.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-150.1	-4.2035	ug/L	0.50385	-4.2035	ppb	0.50385	11.99%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.1	0.1033	ug/L	0.09455	0.1033	ppb	0.09455	91.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-10.4	-0.0044	ug/L	0.02453	-0.0044	ppb	0.02453	561.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.6	-6.1709	ug/L	15.83728	-6.1709	ppb	15.83728	256.65%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -12.0     -0.1702 ug/L       0.06312     -0.1702 ppb        0.06312  37.09%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -0.3     -0.0061 ug/L       0.25243     -0.0061 ppb        0.25243 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -5.7     -0.0749 ug/L       0.03588     -0.0749 ppb        0.03588  47.91%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              187.0      0.6009 ug/L       0.12294      0.6009 ppb        0.12294  20.46%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.8     -22.808 ug/L       37.9236     -22.808 ppb        37.9236 166.27%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        104.5      47.864 ug/L       13.8705      47.864 ppb        13.8705  28.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.1     204.10 ug/L       101.808      204.10 ppb        101.808  49.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               20.0      0.0156 ug/L       0.00577      0.0156 ppb        0.00577  36.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.5      0.2112 ug/L       0.88299      0.2112 ppb        0.88299 418.04%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -50.0     -16.710 ug/L       16.8942     -16.710 ppb        16.8942 101.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               31.3      0.9865 ug/L       0.12619      0.9865 ppb        0.12619  12.79%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.2      0.0190 ug/L       2.13874      0.0190 ppb        2.13874 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.8     -0.9021 ug/L       1.62509     -0.9021 ppb        1.62509 180.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.4     -0.7336 ug/L       4.79817     -0.7336 ppb        4.79817 654.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.9      1.2098 ug/L       1.64335      1.2098 ppb        1.64335 135.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.2     -2.6660 ug/L       3.28748     -2.6660 ppb        3.28748 123.31%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               60.4      2.2366 ug/L       0.34591      2.2366 ppb        0.34591  15.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -4.2     -0.9587 ug/L       1.71437     -0.9587 ppb        1.71437 178.82%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                2.2      0.0223 ug/L       0.23022      0.0223 ppb        0.23022 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               33.5      0.0398 ug/L       0.05722      0.0398 ppb        0.05722 143.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                9.2      3.5872 ug/L       2.85598      3.5872 ppb        2.85598  79.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -24.3     -0.7067 ug/L       2.48361     -0.7067 ppb        2.48361 351.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -1.3     -0.0017 ug/L       0.07425     -0.0017 ppb        0.07425 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                3.0      0.0333 ug/L       0.02743      0.0333 ppb        0.02743  82.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     26.2      2.0495 ug/L       0.32057      2.0495 ppb        0.32057  15.64%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/10/2010 08:51:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3302.5	3302.5	98.6	%			08:53:49
1	Y RADIAL	2678.4	2678.4	97.64	%			08:53:49
1	Al 396.153Radial†	2229.2	2321.6	4965.3	ug/L	4965.3	ppb	08:53:29
1	Ca 317.933Radial†	1258.0	1266.0	5024.3	ug/L	5024.3	ppb	08:53:49
1	Fe 238.204 Radial†	186.0	180.1	5021.1	ug/L	5021.1	ppb	08:53:49
1	K 766.490 Radial†	12537.1	10604.5	4848.0	ug/L	4848.0	ppb	08:53:29
1	Mg 279.077 IEC†	54.0	54.4	5277.5	ug/L	5277.5	ppb	08:53:49
1	Na 589.592 Radial†	29017.9	30221.3	10093	ug/L	10093	ppb	08:53:29
1	Sr 421.552†	51097.7	51803.0	513.64	ug/L	513.64	ppb	08:53:29
1	Sc 361.383	839819.2	839819.2	100.61	%			08:54:46
1	Y 371.029	711888.2	711888.2	99.472	%			08:54:46
1	Ag 328.068†	99138.5	98380.4	500.12	ug/L	500.12	ppb	08:54:51
1	As 188.979†	880.2	890.8	499.39	ug/L	499.39	ppb	08:55:11
1	B 249.677†	17479.3	17463.9	487.31	ug/L	487.31	ppb	08:54:51
1	Ba 233.527†	53220.8	52906.5	495.36	ug/L	495.36	ppb	08:54:51
1	Be 313.107†	1168317.3	1164870.8	503.82	ug/L	503.82	ppb	08:54:46
1	Cd 226.502†	34353.6	34287.6	495.54	ug/L	495.54	ppb	08:54:51
1	Co 228.616†	19468.1	19394.0	503.06	ug/L	503.06	ppb	08:54:51
1	Cr 267.716†	38289.1	37992.0	496.26	ug/L	496.26	ppb	08:54:51
1	Cu 324.752†	159697.0	152661.6	491.28	ug/L	491.28	ppb	08:54:51
1	Mn 257.610†	382049.7	379351.6	497.39	ug/L	497.39	ppb	08:54:46
1	Mo 202.031†	5817.7	5768.8	498.37	ug/L	498.37	ppb	08:55:11
1	Ni 231.604†	16198.4	16047.5	505.50	ug/L	505.50	ppb	08:54:51
1	P 214.914†	3463.3	3267.0	2385.7	ug/L	2385.7	ppb	08:55:11
1	Pb 220.353†	3203.7	3228.3	501.30	ug/L	501.30	ppb	08:55:11
1	S 181.975 Axial†	583.6	549.2	978.68	ug/L	978.68	ppb	08:55:11
1	Sb 206.836†	1245.7	1209.7	519.23	ug/L	519.23	ppb	08:55:11
1	Se 196.026†	598.8	614.4	516.62	ug/L	516.62	ppb	08:55:11
1	Si 251.611†	67194.3	66335.9	2453.5	ug/L	2453.5	ppb	08:54:51
1	Sn 189.927†	2223.5	2202.2	501.03	ug/L	501.03	ppb	08:55:11
1	Ti 334.940†	285709.3	284943.2	484.14	ug/L	484.14	ppb	08:54:51
1	Tl 190.801†	1286.7	1310.0	511.41	ug/L	511.41	ppb	08:55:11
1	U 409.014†	15333.2	17243.7	501.88	ug/L	501.88	ppb	08:54:51
1	V 292.402†	62515.1	63384.1	501.47	ug/L	501.47	ppb	08:54:51
1	Zn 213.857†	41724.7	40970.1	492.47	ug/L	492.47	ppb	08:54:51
1	SiO2†	67835.3	66947.0	5245.4	ug/L	5245.4	ppb	08:56:19
2	Sc Radial	3234.1	3234.1	96.5	%			08:54:14
2	Y RADIAL	2631.2	2631.2	95.92	%			08:54:14
2	Al 396.153Radial†	2247.0	2387.9	5107.7	ug/L	5107.7	ppb	08:53:54
2	Ca 317.933Radial†	1231.0	1265.1	5020.6	ug/L	5020.6	ppb	08:54:14
2	Fe 238.204 Radial†	185.0	183.0	5101.2	ug/L	5101.2	ppb	08:54:14
2	K 766.490 Radial†	12708.7	11051.5	5052.5	ug/L	5052.5	ppb	08:53:54
2	Mg 279.077 IEC†	52.3	53.8	5218.7	ug/L	5218.7	ppb	08:54:14
2	Na 589.592 Radial†	29707.7	31559.0	10539	ug/L	10539	ppb	08:53:54
2	Sr 421.552†	52116.0	53955.1	534.98	ug/L	534.98	ppb	08:53:54
2	Sc 361.383	836105.6	836105.6	100.16	%			08:55:17
2	Y 371.029	708644.8	708644.8	99.019	%			08:55:17
2	Ag 328.068†	99980.1	99658.3	506.63	ug/L	506.63	ppb	08:55:22
2	As 188.979†	881.2	895.8	502.23	ug/L	502.23	ppb	08:55:42
2	B 249.677†	17604.6	17666.2	492.93	ug/L	492.93	ppb	08:55:22
2	Ba 233.527†	54062.6	53981.8	505.42	ug/L	505.42	ppb	08:55:22
2	Be 313.107†	1174647.5	1176348.4	508.79	ug/L	508.79	ppb	08:55:17
2	Cd 226.502†	34987.1	35071.7	506.87	ug/L	506.87	ppb	08:55:22
2	Co 228.616†	19756.3	19767.7	512.74	ug/L	512.74	ppb	08:55:22
2	Cr 267.716†	38876.3	38747.3	506.13	ug/L	506.13	ppb	08:55:22
2	Cu 324.752†	160846.2	154514.0	497.24	ug/L	497.24	ppb	08:55:22
2	Mn 257.610†	383574.1	382560.2	501.60	ug/L	501.60	ppb	08:55:17
2	Mo 202.031†	5808.3	5785.0	499.78	ug/L	499.78	ppb	08:55:42
2	Ni 231.604†	16399.2	16319.5	514.06	ug/L	514.06	ppb	08:55:22

2	P 214.914†	3473.6	3292.6	2403.9 ug/L	2403.9 ppb	08:55:42
2	Pb 220.353†	3196.4	3235.1	502.38 ug/L	502.38 ppb	08:55:42
2	S 181.975 Axial†	590.2	558.4	995.02 ug/L	995.02 ppb	08:55:42
2	Sb 206.836†	1251.3	1220.8	523.95 ug/L	523.95 ppb	08:55:42
2	Se 196.026†	600.6	618.9	520.55 ug/L	520.55 ppb	08:55:42
2	Si 251.611†	67946.3	67383.3	2492.3 ug/L	2492.3 ppb	08:55:22
2	Sn 189.927†	2235.6	2224.2	506.00 ug/L	506.00 ppb	08:55:42
2	Ti 334.940†	289526.6	290015.7	492.76 ug/L	492.76 ppb	08:55:22
2	Tl 190.801†	1256.2	1285.2	501.80 ug/L	501.80 ppb	08:55:42
2	U 409.014†	15419.4	17397.5	506.34 ug/L	506.34 ppb	08:55:22
2	V 292.402†	63321.5	64465.2	509.91 ug/L	509.91 ppb	08:55:22
2	Zn 213.857†	42240.4	41669.2	500.88 ug/L	500.88 ppb	08:55:22
2	SiO2†	67594.1	67005.6	5250.0 ug/L	5250.0 ppb	08:56:24
3	Sc Radial	3270.5	3270.5	97.6 %		08:54:39
3	Y RADIAL	2661.8	2661.8	97.03 %		08:54:39
3	Al 396.153Radial†	2225.8	2340.2	5005.5 ug/L	5005.5 ppb	08:54:19
3	Ca 317.933Radial†	1252.5	1272.9	5051.7 ug/L	5051.7 ppb	08:54:39
3	Fe 238.204 Radial†	188.4	184.4	5140.7 ug/L	5140.7 ppb	08:54:39
3	K 766.490 Radial†	12714.3	10910.5	4988.0 ug/L	4988.0 ppb	08:54:19
3	Mg 279.077 IEC†	52.1	53.0	5139.4 ug/L	5139.4 ppb	08:54:39
3	Na 589.592 Radial†	29702.4	31210.6	10423 ug/L	10423 ppb	08:54:19
3	Sr 421.552†	52072.3	53308.8	528.58 ug/L	528.58 ppb	08:54:19
3	Sc 361.383	846532.9	846532.9	101.41 %		08:55:48
3	Y 371.029	716182.9	716182.9	100.07 %		08:55:48
3	Ag 328.068†	100606.4	99046.4	503.53 ug/L	503.53 ppb	08:55:53
3	As 188.979†	889.9	893.5	500.95 ug/L	500.95 ppb	08:56:13
3	B 249.677†	17834.4	17676.2	493.22 ug/L	493.22 ppb	08:55:53
3	Ba 233.527†	53924.6	53180.9	497.93 ug/L	497.93 ppb	08:55:53
3	Be 313.107†	1183467.2	1170600.0	506.30 ug/L	506.30 ppb	08:55:48
3	Cd 226.502†	34836.4	34492.8	498.50 ug/L	498.50 ppb	08:55:53
3	Co 228.616†	19802.3	19570.1	507.61 ug/L	507.61 ppb	08:55:53
3	Cr 267.716†	38930.5	38322.7	500.58 ug/L	500.58 ppb	08:55:53
3	Cu 324.752†	162686.6	154350.7	496.72 ug/L	496.72 ppb	08:55:53
3	Mn 257.610†	387795.8	382006.0	500.88 ug/L	500.88 ppb	08:55:48
3	Mo 202.031†	5826.2	5731.3	495.15 ug/L	495.15 ppb	08:56:13
3	Ni 231.604†	16390.8	16109.5	507.45 ug/L	507.45 ppb	08:55:53
3	P 214.914†	3492.7	3268.6	2385.8 ug/L	2385.8 ppb	08:56:13
3	Pb 220.353†	3216.1	3215.2	499.26 ug/L	499.26 ppb	08:56:13
3	S 181.975 Axial†	600.2	561.0	999.67 ug/L	999.67 ppb	08:56:13
3	Sb 206.836†	1248.6	1202.7	516.29 ug/L	516.29 ppb	08:56:13
3	Se 196.026†	608.1	618.9	520.59 ug/L	520.59 ppb	08:56:13
3	Si 251.611†	68299.6	66896.1	2474.3 ug/L	2474.3 ppb	08:55:53
3	Sn 189.927†	2245.2	2206.1	501.90 ug/L	501.90 ppb	08:56:13
3	Ti 334.940†	290501.5	287416.5	488.35 ug/L	488.35 ppb	08:55:53
3	Tl 190.801†	1265.6	1279.1	499.43 ug/L	499.43 ppb	08:56:13
3	U 409.014†	15615.8	17401.5	506.46 ug/L	506.46 ppb	08:55:53
3	V 292.402†	63458.5	63821.6	504.82 ug/L	504.82 ppb	08:55:53
3	Zn 213.857†	42416.1	41323.0	496.72 ug/L	496.72 ppb	08:55:53
3	SiO2†	67557.6	66138.4	5182.0 ug/L	5182.0 ppb	08:56:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	840819.2	100.73	%	0.633				0.63%
Sc Radial	3269.0	97.6	%	1.02				1.05%
Y 371.029	712238.6	99.521	%	0.5284				0.53%
Y RADIAL	2657.1	96.86	%	0.873				0.90%
Ag 328.068†	99028.4	503.43	ug/L	3.257	503.43	ppb	3.257	0.65%
QC value within limits for Ag 328.068 Recovery = 100.69%								
Al 396.153Radial†	2349.9	5026.2	ug/L	73.40	5026.2	ppb	73.40	1.46%
QC value within limits for Al 396.153Radial Recovery = 100.52%								
As 188.979†	893.4	500.86	ug/L	1.422	500.86	ppb	1.422	0.28%
QC value within limits for As 188.979 Recovery = 100.17%								
B 249.677†	17602.1	491.15	ug/L	3.337	491.15	ppb	3.337	0.68%
QC value within limits for B 249.677 Recovery = 98.23%								
Ba 233.527†	53356.4	499.57	ug/L	5.228	499.57	ppb	5.228	1.05%
QC value within limits for Ba 233.527 Recovery = 99.91%								
Be 313.107†	1170606.4	506.30	ug/L	2.486	506.30	ppb	2.486	0.49%
QC value within limits for Be 313.107 Recovery = 101.26%								
Ca 317.933Radial†	1268.0	5032.2	ug/L	16.98	5032.2	ppb	16.98	0.34%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.64%
Cd 226.502†            34617.4      500.31 ug/L         5.878      500.31 ppb          5.878   1.17%
   QC value within limits for Cd 226.502  Recovery = 100.06%
Co 228.616†            19577.3      507.80 ug/L         4.841      507.80 ppb          4.841   0.95%
   QC value within limits for Co 228.616  Recovery = 101.56%
Cr 267.716†            38354.0      500.99 ug/L         4.945      500.99 ppb          4.945   0.99%
   QC value within limits for Cr 267.716  Recovery = 100.20%
Cu 324.752†           153842.1      495.08 ug/L         3.302      495.08 ppb          3.302   0.67%
   QC value within limits for Cu 324.752  Recovery = 99.02%
Fe 238.204 Radial†       182.5      5087.7 ug/L        60.93      5087.7 ppb         60.93   1.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.75%
K 766.490 Radial†      10855.5      4962.8 ug/L       104.52      4962.8 ppb        104.52   2.11%
   QC value within limits for K 766.490 Radial  Recovery = 99.26%
Mg 279.077 IEC†           53.7      5211.8 ug/L        69.32      5211.8 ppb         69.32   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.24%
Mn 257.610†           381306.0      499.96 ug/L         2.255      499.96 ppb          2.255   0.45%
   QC value within limits for Mn 257.610  Recovery = 99.99%
Mo 202.031†             5761.7      497.77 ug/L         2.374      497.77 ppb          2.374   0.48%
   QC value within limits for Mo 202.031  Recovery = 99.55%
Na 589.592 Radial†     30997.0       10352 ug/L       231.8       10352 ppb        231.8   2.24%
   QC value within limits for Na 589.592 Radial  Recovery = 103.52%
Ni 231.604†            16158.8      509.00 ug/L         4.489      509.00 ppb          4.489   0.88%
   QC value within limits for Ni 231.604  Recovery = 101.80%
P 214.914†              3276.1      2391.8 ug/L        10.51      2391.8 ppb         10.51   0.44%
   QC value within limits for P 214.914  Recovery = 95.67%
Pb 220.353†             3226.2      500.98 ug/L         1.588      500.98 ppb          1.588   0.32%
   QC value within limits for Pb 220.353  Recovery = 100.20%
S 181.975 Axial†         556.2      991.13 ug/L        11.022      991.13 ppb         11.022   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 99.11%
Sb 206.836†             1211.1      519.82 ug/L         3.866      519.82 ppb          3.866   0.74%
   QC value within limits for Sb 206.836  Recovery = 103.96%
Se 196.026†              617.4      519.26 ug/L         2.281      519.26 ppb          2.281   0.44%
   QC value within limits for Se 196.026  Recovery = 103.85%
Si 251.611†            66871.8      2473.4 ug/L        19.43      2473.4 ppb         19.43   0.79%
   QC value within limits for Si 251.611  Recovery = 98.93%
Sn 189.927†             2210.8      502.98 ug/L         2.658      502.98 ppb          2.658   0.53%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†            53022.3      525.73 ug/L        10.950      525.73 ppb         10.950   2.08%
   QC value within limits for Sr 421.552  Recovery = 105.15%
Ti 334.940†           287458.5      488.41 ug/L         4.310      488.41 ppb          4.310   0.88%
   QC value within limits for Ti 334.940  Recovery = 97.68%
Tl 190.801†             1291.4      504.21 ug/L         6.343      504.21 ppb          6.343   1.26%
   QC value within limits for Tl 190.801  Recovery = 100.84%
U 409.014†             17347.6      504.89 ug/L         2.612      504.89 ppb          2.612   0.52%
   QC value within limits for U 409.014  Recovery = 100.98%
V 292.402†             63890.3      505.40 ug/L         4.251      505.40 ppb          4.251   0.84%
   QC value within limits for V 292.402  Recovery = 101.08%
Zn 213.857†            41320.8      496.69 ug/L         4.204      496.69 ppb          4.204   0.85%
   QC value within limits for Zn 213.857  Recovery = 99.34%
SiO2†                  66697.0      5225.8 ug/L        38.01      5225.8 ppb         38.01   0.73%
   QC value within limits for SiO2  Recovery = 97.72%
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/10/2010 08:58:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3132.4	3132.4	93.5	%			09:00:52
1	Y RADIAL	2548.2	2548.2	92.89	%			09:00:52
1	Al 396.153Radial†	-57.6	-1.6	-3.4121	ug/L	-3.4121	ppb	09:00:52
1	Ca 317.933Radial†	10.8	1.3	5.1326	ug/L	5.1326	ppb	09:00:52
1	Fe 238.204 Radial†	8.3	0.3	7.1744	ug/L	7.1744	ppb	09:00:52
1	K 766.490 Radial†	2161.3	197.3	90.318	ug/L	90.318	ppb	09:00:32
1	Mg 279.077 IEC†	3.8	3.6	346.76	ug/L	346.76	ppb	09:00:52
1	Na 589.592 Radial†	-649.4	88.0	29.382	ug/L	29.382	ppb	09:00:32
1	Sr 421.552†	89.6	60.1	0.5963	ug/L	0.5963	ppb	09:00:32
1	Sc 361.383	816387.2	816387.2	97.801	%			09:01:49
1	Y 371.029	699831.6	699831.6	97.788	%			09:01:49
1	Ag 328.068†	238.1	84.4	0.4291	ug/L	0.4291	ppb	09:01:49
1	As 188.979†	-17.7	-2.1	-1.1619	ug/L	-1.1619	ppb	09:02:09
1	B 249.677†	-126.6	-39.2	-1.1003	ug/L	-1.1003	ppb	09:02:09
1	Ba 233.527†	11.5	19.0	0.1776	ug/L	0.1776	ppb	09:02:09
1	Be 313.107†	-3469.7	64.8	0.0278	ug/L	0.0278	ppb	09:01:49
1	Cd 226.502†	-155.1	-17.1	-0.2467	ug/L	-0.2467	ppb	09:02:09
1	Co 228.616†	-40.5	2.1	0.0533	ug/L	0.0533	ppb	09:02:09
1	Cr 267.716†	60.0	-4.4	-0.0574	ug/L	-0.0574	ppb	09:02:09
1	Cu 324.752†	6066.3	132.2	0.4259	ug/L	0.4259	ppb	09:01:49
1	Mn 257.610†	421.9	41.7	0.0412	ug/L	0.0412	ppb	09:02:09
1	Mo 202.031†	6.7	-6.9	-0.5991	ug/L	-0.5991	ppb	09:02:09
1	Ni 231.604†	79.1	27.9	0.8783	ug/L	0.8783	ppb	09:02:09
1	P 214.914†	159.7	-12.1	-9.2961	ug/L	-9.2961	ppb	09:02:09
1	Pb 220.353†	-38.2	4.9	0.7529	ug/L	0.7529	ppb	09:02:09
1	S 181.975 Axial†	30.6	0.4	0.7967	ug/L	0.7967	ppb	09:02:09
1	Sb 206.836†	33.0	5.2	2.1470	ug/L	2.1470	ppb	09:02:09
1	Se 196.026†	-14.8	4.1	3.3331	ug/L	3.3331	ppb	09:02:09
1	Si 251.611†	492.4	51.0	1.8998	ug/L	1.8998	ppb	09:02:09
1	Sn 189.927†	5.7	-2.0	-0.4646	ug/L	-0.4646	ppb	09:02:09
1	Ti 334.940†	-972.3	-33.9	-0.0853	ug/L	-0.0853	ppb	09:01:49
1	Tl 190.801†	-24.8	5.8	2.2324	ug/L	2.2324	ppb	09:02:09
1	U 409.014†	-1961.7	-2.6	-0.0775	ug/L	-0.0775	ppb	09:01:49
1	V 292.402†	-1206.5	13.2	0.0998	ug/L	0.0998	ppb	09:01:49
1	Zn 213.857†	491.0	-0.4	-0.0122	ug/L	-0.0122	ppb	09:02:09
1	SiO2†	511.6	44.7	3.5245	ug/L	3.5245	ppb	09:03:20
2	Sc Radial	3152.6	3152.6	94.1	%			09:01:17
2	Y RADIAL	2550.4	2550.4	92.97	%			09:01:17
2	Al 396.153Radial†	-61.5	-5.3	-11.387	ug/L	-11.387	ppb	09:01:17
2	Ca 317.933Radial†	10.2	0.6	2.4843	ug/L	2.4843	ppb	09:01:17
2	Fe 238.204 Radial†	5.4	-2.9	-81.407	ug/L	-81.407	ppb	09:01:17
2	K 766.490 Radial†	2198.3	221.8	101.51	ug/L	101.51	ppb	09:00:57
2	Mg 279.077 IEC†	2.1	1.7	169.35	ug/L	169.35	ppb	09:01:17
2	Na 589.592 Radial†	-711.6	26.4	8.8178	ug/L	8.8178	ppb	09:00:57
2	Sr 421.552†	33.9	0.4	0.0037	ug/L	0.0037	ppb	09:00:57
2	Sc 361.383	800367.4	800367.4	95.882	%			09:02:14
2	Y 371.029	687087.5	687087.5	96.007	%			09:02:14
2	Ag 328.068†	240.7	92.0	0.4428	ug/L	0.4428	ppb	09:02:14
2	As 188.979†	-13.9	1.5	0.8018	ug/L	0.8018	ppb	09:02:34
2	B 249.677†	-122.0	-37.0	-1.0246	ug/L	-1.0246	ppb	09:02:34
2	Ba 233.527†	17.2	25.1	0.2323	ug/L	0.2323	ppb	09:02:34
2	Be 313.107†	-3480.2	-17.2	-0.0076	ug/L	-0.0076	ppb	09:02:14
2	Cd 226.502†	-149.9	-14.7	-0.2047	ug/L	-0.2047	ppb	09:02:34
2	Co 228.616†	-47.7	-6.2	-0.1601	ug/L	-0.1601	ppb	09:02:34
2	Cr 267.716†	54.0	-9.4	-0.1242	ug/L	-0.1242	ppb	09:02:34
2	Cu 324.752†	6097.9	289.3	0.9288	ug/L	0.9288	ppb	09:02:14
2	Mn 257.610†	425.0	53.5	0.0552	ug/L	0.0552	ppb	09:02:34
2	Mo 202.031†	10.7	-2.6	-0.2294	ug/L	-0.2294	ppb	09:02:34
2	Ni 231.604†	80.9	31.4	0.9883	ug/L	0.9883	ppb	09:02:34

2	P 214.914†	166.3	-2.0	-1.5998 ug/L	-1.5998 ppb		09:02:34
2	Pb 220.353†	-49.6	-7.8	-1.2054 ug/L	-1.2054 ppb		09:02:34
2	S 181.975 Axial†	29.9	0.3	0.5946 ug/L	0.5946 ppb		09:02:34
2	Sb 206.836†	29.5	2.3	0.9833 ug/L	0.9833 ppb		09:02:34
2	Se 196.026†	-20.8	-2.5	-2.2488 ug/L	-2.2488 ppb		09:02:34
2	Si 251.611†	508.3	77.7	2.8841 ug/L	2.8841 ppb		09:02:34
2	Sn 189.927†	12.3	5.0	1.1318 ug/L	1.1318 ppb		09:02:34
2	Ti 334.940†	-955.5	-36.3	-0.0735 ug/L	-0.0735 ppb		09:02:14
2	Tl 190.801†	-24.3	5.8	2.2383 ug/L	2.2383 ppb		09:02:34
2	U 409.014†	-2043.3	-128.0	-3.7269 ug/L	-3.7269 ppb		09:02:14
2	V 292.402†	-1184.8	11.1	0.0913 ug/L	0.0913 ppb		09:02:14
2	Zn 213.857†	483.3	1.6	0.0239 ug/L	0.0239 ppb		09:02:34
2	SiO2†	487.8	30.3	2.3861 ug/L	2.3861 ppb		09:03:40
3	Sc Radial	3159.7	3159.7	94.3 %			09:01:42
3	Y RADIAL	2567.5	2567.5	93.59 %			09:01:42
3	Al 396.153Radial†	-64.0	-7.9	-16.921 ug/L	-16.921 ppb		09:01:42
3	Ca 317.933Radial†	12.2	2.7	10.800 ug/L	10.800 ppb		09:01:42
3	Fe 238.204 Radial†	8.2	0.0	1.2048 ug/L	1.2048 ppb		09:01:42
3	K 766.490 Radial†	2024.5	32.3	14.786 ug/L	14.786 ppb		09:01:22
3	Mg 279.077 IEC†	1.7	1.4	134.00 ug/L	134.00 ppb		09:01:42
3	Na 589.592 Radial†	-750.1	-12.8	-4.2662 ug/L	-4.2662 ppb		09:01:22
3	Sr 421.552†	23.0	-11.3	-0.1120 ug/L	-0.1120 ppb		09:01:22
3	Sc 361.383	797817.3	797817.3	95.576 %			09:02:39
3	Y 371.029	683631.3	683631.3	95.524 %			09:02:39
3	Ag 328.068†	158.0	6.2	0.0363 ug/L	0.0363 ppb		09:02:39
3	As 188.979†	-19.3	-4.3	-2.3727 ug/L	-2.3727 ppb		09:02:59
3	B 249.677†	-152.0	-68.9	-1.9312 ug/L	-1.9312 ppb		09:02:59
3	Ba 233.527†	15.7	23.6	0.2204 ug/L	0.2204 ppb		09:02:59
3	Be 313.107†	-3492.1	-41.2	-0.0180 ug/L	-0.0180 ppb		09:02:39
3	Cd 226.502†	-152.1	-17.6	-0.2543 ug/L	-0.2543 ppb		09:02:59
3	Co 228.616†	-40.6	1.1	0.0276 ug/L	0.0276 ppb		09:02:59
3	Cr 267.716†	67.2	4.6	0.0618 ug/L	0.0618 ppb		09:02:59
3	Cu 324.752†	6116.8	329.5	1.0630 ug/L	1.0630 ppb		09:02:39
3	Mn 257.610†	423.3	53.2	0.0644 ug/L	0.0644 ppb		09:02:59
3	Mo 202.031†	11.4	-1.8	-0.1576 ug/L	-0.1576 ppb		09:02:59
3	Ni 231.604†	100.0	51.6	1.6271 ug/L	1.6271 ppb		09:02:59
3	P 214.914†	172.8	5.4	3.9037 ug/L	3.9037 ppb		09:02:59
3	Pb 220.353†	-33.4	9.0	1.3877 ug/L	1.3877 ppb		09:02:59
3	S 181.975 Axial†	23.2	-6.6	-11.720 ug/L	-11.720 ppb		09:02:59
3	Sb 206.836†	25.6	-1.7	-0.7190 ug/L	-0.7190 ppb		09:02:59
3	Se 196.026†	-19.7	-1.3	-1.0966 ug/L	-1.0966 ppb		09:02:59
3	Si 251.611†	486.3	56.4	2.0923 ug/L	2.0923 ppb		09:02:59
3	Sn 189.927†	7.9	0.5	0.1076 ug/L	0.1076 ppb		09:02:59
3	Ti 334.940†	-978.8	-63.9	-0.1160 ug/L	-0.1160 ppb		09:02:39
3	Tl 190.801†	-24.1	5.9	2.2820 ug/L	2.2820 ppb		09:02:59
3	U 409.014†	-2072.7	-165.5	-4.8330 ug/L	-4.8330 ppb		09:02:39
3	V 292.402†	-1168.4	24.3	0.1809 ug/L	0.1809 ppb		09:02:39
3	Zn 213.857†	493.8	14.2	0.1608 ug/L	0.1608 ppb		09:02:59
3	SiO2†	509.8	54.9	4.3173 ug/L	4.3173 ppb		09:04:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	804857.3	96.420	%	1.2059				1.25%
Sc Radial	3148.3	94.0	%	0.42				0.45%
Y 371.029	690183.5	96.440	%	1.1922				1.24%
Y RADIAL	2555.4	93.15	%	0.387				0.42%
Ag 328.068†	60.9	0.3027	ug/L	0.23087	0.3027	ppb	0.23087	76.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.9	-10.573	ug/L	6.7911	-10.573	ppb	6.7911	64.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.6	-0.9110	ug/L	1.60207	-0.9110	ppb	1.60207	175.86%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-48.4	-1.3520	ug/L	0.50298	-1.3520	ppb	0.50298	37.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.5	0.2101	ug/L	0.02878	0.2101	ppb	0.02878	13.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	2.1	0.0007	ug/L	0.02403	0.0007	ppb	0.02403	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	6.1388	ug/L	4.24791	6.1388	ppb	4.24791	69.20%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -16.5     -0.2352 ug/L       0.02671     -0.2352 ppb        0.02671  11.36%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -1.0     -0.0264 ug/L       0.11651     -0.0264 ppb        0.11651 440.97%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -3.1     -0.0399 ug/L       0.09419     -0.0399 ppb        0.09419 235.94%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              250.3      0.8059 ug/L       0.33583      0.8059 ppb        0.33583  41.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.9     -24.343 ug/L       49.5093     -24.343 ppb        49.5093 203.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        150.5      68.872 ug/L       47.1732      68.872 ppb        47.1732  68.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.2      216.70 ug/L       114.011      216.70 ppb        114.011  52.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              49.5      0.0536 ug/L       0.01167      0.0536 ppb        0.01167  21.78%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -3.8     -0.3287 ug/L       0.23691     -0.3287 ppb        0.23691  72.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        33.9      11.311 ug/L       16.9619      11.311 ppb        16.9619 149.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              36.9      1.1646 ug/L       0.40432      1.1646 ppb        0.40432  34.72%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.9     -2.3307 ug/L       6.63017     -2.3307 ppb        6.63017 284.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               2.0      0.3117 ug/L       1.35169      0.3117 ppb        1.35169 433.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.9     -3.4429 ug/L       7.16886     -3.4429 ppb        7.16886 208.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.9      0.8037 ug/L       1.44141      0.8037 ppb        1.44141 179.34%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.1     -0.0041 ug/L       2.94696     -0.0041 ppb        2.94696 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              61.7      2.2921 ug/L       0.52171      2.2921 ppb        0.52171  22.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.1      0.2583 ug/L       0.80883      0.2583 ppb        0.80883 313.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              16.4      0.1627 ug/L       0.37999      0.1627 ppb        0.37999 233.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -44.7     -0.0916 ug/L       0.02192     -0.0916 ppb        0.02192  23.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.8      2.2509 ug/L       0.02710      2.2509 ppb        0.02710   1.20%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -98.7     -2.8791 ug/L       2.48853     -2.8791 ppb        2.48853  86.43%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               16.2      0.1240 ug/L       0.04942      0.1240 ppb        0.04942  39.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               5.1      0.0575 ug/L       0.09123      0.0575 ppb        0.09123 158.66%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    43.3      3.4093 ug/L       0.97073      3.4093 ppb        0.97073  28.47%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/10/2010 09:55:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3287.9	3287.9	98.1	%			09:57:49
1	Y RADIAL	2675.3	2675.3	97.52	%			09:57:49
1	Al 396.153Radial†	2244.6	2347.3	5020.3	ug/L	5020.3	ppb	09:57:29
1	Ca 317.933Radial†	1267.6	1281.4	5085.5	ug/L	5085.5	ppb	09:57:49
1	Fe 238.204 Radial†	187.6	182.6	5089.9	ug/L	5089.9	ppb	09:57:49
1	K 766.490 Radial†	12696.4	10823.2	4948.1	ug/L	4948.1	ppb	09:57:29
1	Mg 279.077 IEC†	54.7	55.3	5370.1	ug/L	5370.1	ppb	09:57:49
1	Na 589.592 Radial†	29337.1	30677.0	10245	ug/L	10245	ppb	09:57:29
1	Sr 421.552†	51852.4	52801.8	523.55	ug/L	523.55	ppb	09:57:29
1	Sc 361.383	832988.8	832988.8	99.790	%			09:58:46
1	Y 371.029	706345.2	706345.2	98.698	%			09:58:46
1	Ag 328.068†	99512.9	99563.6	506.14	ug/L	506.14	ppb	09:58:51
1	As 188.979†	885.6	903.4	506.43	ug/L	506.43	ppb	09:59:11
1	B 249.677†	17379.6	17506.4	488.47	ug/L	488.47	ppb	09:58:51
1	Ba 233.527†	53312.7	53432.3	500.28	ug/L	500.28	ppb	09:58:51
1	Be 313.107†	1167229.4	1173302.7	507.47	ug/L	507.47	ppb	09:58:46
1	Cd 226.502†	34392.8	34606.8	500.15	ug/L	500.15	ppb	09:58:51
1	Co 228.616†	19498.0	19582.7	507.95	ug/L	507.95	ppb	09:58:51
1	Cr 267.716†	38420.7	38435.9	502.06	ug/L	502.06	ppb	09:58:51
1	Cu 324.752†	160478.9	154746.8	497.99	ug/L	497.99	ppb	09:58:51
1	Mn 257.610†	374254.1	374653.4	491.23	ug/L	491.23	ppb	09:58:51
1	Mo 202.031†	5821.1	5819.6	502.76	ug/L	502.76	ppb	09:59:11
1	Ni 231.604†	16177.1	16158.1	508.98	ug/L	508.98	ppb	09:58:51
1	P 214.914†	3485.2	3317.2	2422.5	ug/L	2422.5	ppb	09:59:11
1	Pb 220.353†	3200.4	3251.1	504.84	ug/L	504.84	ppb	09:59:11
1	S 181.975 Axial†	591.0	561.4	1000.4	ug/L	1000.4	ppb	09:59:11
1	Sb 206.836†	1229.2	1203.4	516.75	ug/L	516.75	ppb	09:59:11
1	Se 196.026†	610.9	631.4	530.66	ug/L	530.66	ppb	09:59:11
1	Si 251.611†	67771.1	67461.6	2495.2	ug/L	2495.2	ppb	09:58:51
1	Sn 189.927†	2219.3	2216.1	504.19	ug/L	504.19	ppb	09:59:11
1	Ti 334.940†	286705.7	288270.4	489.79	ug/L	489.79	ppb	09:58:51
1	Tl 190.801†	1262.1	1295.9	505.90	ug/L	505.90	ppb	09:59:11
1	U 409.014†	15416.5	17452.2	507.94	ug/L	507.94	ppb	09:58:51
1	V 292.402†	62652.3	64031.1	506.58	ug/L	506.58	ppb	09:58:51
1	Zn 213.857†	41822.8	41408.5	497.75	ug/L	497.75	ppb	09:58:51
1	SiO2†	68266.6	67932.1	5322.6	ug/L	5322.6	ppb	10:00:18
2	Sc Radial	3269.1	3269.1	97.6	%			09:58:14
2	Y RADIAL	2664.8	2664.8	97.14	%			09:58:14
2	Al 396.153Radial†	2230.6	2346.0	5018.0	ug/L	5018.0	ppb	09:57:54
2	Ca 317.933Radial†	1262.4	1283.5	5093.8	ug/L	5093.8	ppb	09:58:14
2	Fe 238.204 Radial†	189.0	185.1	5159.5	ug/L	5159.5	ppb	09:58:14
2	K 766.490 Radial†	12701.9	10903.3	4984.7	ug/L	4984.7	ppb	09:57:54
2	Mg 279.077 IEC†	51.7	52.5	5096.9	ug/L	5096.9	ppb	09:58:14
2	Na 589.592 Radial†	29173.4	30681.2	10246	ug/L	10246	ppb	09:57:54
2	Sr 421.552†	51258.1	52496.6	520.52	ug/L	520.52	ppb	09:57:54
2	Sc 361.383	841776.8	841776.8	100.84	%			09:59:17
2	Y 371.029	714022.6	714022.6	99.771	%			09:59:17
2	Ag 328.068†	100035.2	99040.4	503.51	ug/L	503.51	ppb	09:59:22
2	As 188.979†	878.7	887.3	497.50	ug/L	497.50	ppb	09:59:42
2	B 249.677†	17525.1	17468.9	487.42	ug/L	487.42	ppb	09:59:22
2	Ba 233.527†	53617.9	53177.2	497.90	ug/L	497.90	ppb	09:59:22
2	Be 313.107†	1183726.1	1177450.4	509.26	ug/L	509.26	ppb	09:59:17
2	Cd 226.502†	34610.8	34463.2	498.07	ug/L	498.07	ppb	09:59:22
2	Co 228.616†	19597.2	19477.1	505.20	ug/L	505.20	ppb	09:59:22
2	Cr 267.716†	38652.7	38264.0	499.82	ug/L	499.82	ppb	09:59:22
2	Cu 324.752†	161489.1	154069.6	495.82	ug/L	495.82	ppb	09:59:22
2	Mn 257.610†	376718.1	373181.4	489.32	ug/L	489.32	ppb	09:59:22
2	Mo 202.031†	5810.6	5748.3	496.61	ug/L	496.61	ppb	09:59:42
2	Ni 231.604†	16201.2	16012.8	504.40	ug/L	504.40	ppb	09:59:22

2	P 214.914†	3472.8	3268.4	2385.8 ug/L	2385.8 ppb	09:59:42
2	Pb 220.353†	3208.4	3225.5	500.86 ug/L	500.86 ppb	09:59:42
2	S 181.975 Axial†	589.0	553.2	985.75 ug/L	985.75 ppb	09:59:42
2	Sb 206.836†	1241.4	1202.6	516.23 ug/L	516.23 ppb	09:59:42
2	Se 196.026†	599.7	614.0	516.67 ug/L	516.67 ppb	09:59:42
2	Si 251.611†	68220.1	67197.8	2485.5 ug/L	2485.5 ppb	09:59:22
2	Sn 189.927†	2224.1	2197.7	500.00 ug/L	500.00 ppb	09:59:42
2	Ti 334.940†	288434.4	286985.2	487.63 ug/L	487.63 ppb	09:59:22
2	Tl 190.801†	1274.2	1294.6	505.40 ug/L	505.40 ppb	09:59:42
2	U 409.014†	15481.2	17355.1	505.11 ug/L	505.11 ppb	09:59:22
2	V 292.402†	63031.9	63752.1	504.29 ug/L	504.29 ppb	09:59:22
2	Zn 213.857†	42158.5	41303.8	496.50 ug/L	496.50 ppb	09:59:22
2	SiO2†	67947.7	66901.6	5241.9 ug/L	5241.9 ppb	10:00:24
3	Sc Radial	3292.3	3292.3	98.3 %		09:58:39
3	Y RADIAL	2667.7	2667.7	97.25 %		09:58:39
3	Al 396.153Radial†	2211.8	2310.9	4942.1 ug/L	4942.1 ppb	09:58:19
3	Ca 317.933Radial†	1258.4	1270.4	5041.7 ug/L	5041.7 ppb	09:58:39
3	Fe 238.204 Radial†	190.0	184.8	5151.1 ug/L	5151.1 ppb	09:58:39
3	K 766.490 Radial†	12497.8	10604.0	4847.8 ug/L	4847.8 ppb	09:58:19
3	Mg 279.077 IEC†	52.7	53.2	5163.5 ug/L	5163.5 ppb	09:58:39
3	Na 589.592 Radial†	28872.5	30164.7	10074 ug/L	10074 ppb	09:58:19
3	Sr 421.552†	50815.7	51676.9	512.39 ug/L	512.39 ppb	09:58:19
3	Sc 361.383	833938.1	833938.1	99.903 %		09:59:48
3	Y 371.029	705589.9	705589.9	98.592 %		09:59:48
3	Ag 328.068†	100594.6	100532.8	511.06 ug/L	511.06 ppb	09:59:53
3	As 188.979†	894.0	910.9	510.65 ug/L	510.65 ppb	10:00:13
3	B 249.677†	17752.9	17860.3	498.36 ug/L	498.36 ppb	09:59:53
3	Ba 233.527†	53981.6	54041.0	505.98 ug/L	505.98 ppb	09:59:53
3	Be 313.107†	1166330.9	1171071.9	506.52 ug/L	506.52 ppb	09:59:48
3	Cd 226.502†	34887.5	35062.8	506.74 ug/L	506.74 ppb	09:59:53
3	Co 228.616†	19804.7	19867.4	515.32 ug/L	515.32 ppb	09:59:53
3	Cr 267.716†	38892.1	38864.0	507.65 ug/L	507.65 ppb	09:59:53
3	Cu 324.752†	162494.6	156581.4	503.89 ug/L	503.89 ppb	09:59:53
3	Mn 257.610†	379196.3	379173.5	497.17 ug/L	497.17 ppb	09:59:53
3	Mo 202.031†	5814.7	5806.5	501.64 ug/L	501.64 ppb	10:00:13
3	Ni 231.604†	16357.0	16319.8	514.07 ug/L	514.07 ppb	09:59:53
3	P 214.914†	3488.9	3316.8	2420.9 ug/L	2420.9 ppb	10:00:13
3	Pb 220.353†	3192.6	3239.6	503.03 ug/L	503.03 ppb	10:00:13
3	S 181.975 Axial†	579.8	549.5	979.25 ug/L	979.25 ppb	10:00:13
3	Sb 206.836†	1235.8	1208.5	518.87 ug/L	518.87 ppb	10:00:13
3	Se 196.026†	606.0	625.8	526.24 ug/L	526.24 ppb	10:00:13
3	Si 251.611†	68673.0	68287.0	2525.8 ug/L	2525.8 ppb	09:59:53
3	Sn 189.927†	2224.1	2218.4	504.70 ug/L	504.70 ppb	10:00:13
3	Ti 334.940†	290171.9	291412.9	495.13 ug/L	495.13 ppb	09:59:53
3	Tl 190.801†	1269.0	1301.3	508.04 ug/L	508.04 ppb	10:00:13
3	U 409.014†	15762.9	17781.3	517.54 ug/L	517.54 ppb	09:59:53
3	V 292.402†	63376.7	64684.8	511.66 ug/L	511.66 ppb	09:59:53
3	Zn 213.857†	42415.3	41953.9	504.32 ug/L	504.32 ppb	09:59:53
3	SiO2†	68601.3	68189.2	5342.9 ug/L	5342.9 ppb	10:00:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	836234.6	100.18	%	0.578				0.58%
Sc Radial	3283.1	98.0	%	0.37				0.37%
Y 371.029	708652.6	99.020	%	0.6520				0.66%
Y RADIAL	2669.3	97.30	%	0.198				0.20%
Ag 328.068†	99712.3	506.90	ug/L	3.837	506.90	ppb	3.837	0.76%
QC value within limits for Ag 328.068 Recovery = 101.38%								
Al 396.153Radial†	2334.7	4993.5	ug/L	44.51	4993.5	ppb	44.51	0.89%
QC value within limits for Al 396.153Radial Recovery = 99.87%								
As 188.979†	900.5	504.86	ug/L	6.714	504.86	ppb	6.714	1.33%
QC value within limits for As 188.979 Recovery = 100.97%								
B 249.677†	17611.9	491.42	ug/L	6.036	491.42	ppb	6.036	1.23%
QC value within limits for B 249.677 Recovery = 98.28%								
Ba 233.527†	53550.2	501.39	ug/L	4.154	501.39	ppb	4.154	0.83%
QC value within limits for Ba 233.527 Recovery = 100.28%								
Be 313.107†	1173941.7	507.75	ug/L	1.389	507.75	ppb	1.389	0.27%
QC value within limits for Be 313.107 Recovery = 101.55%								
Ca 317.933Radial†	1278.5	5073.7	ug/L	27.98	5073.7	ppb	27.98	0.55%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.47%
Cd 226.502†            34711.0      501.65 ug/L         4.529      501.65 ppb          4.529   0.90%
   QC value within limits for Cd 226.502  Recovery = 100.33%
Co 228.616†            19642.4      509.49 ug/L         5.233      509.49 ppb          5.233   1.03%
   QC value within limits for Co 228.616  Recovery = 101.90%
Cr 267.716†            38521.3      503.18 ug/L         4.033      503.18 ppb          4.033   0.80%
   QC value within limits for Cr 267.716  Recovery = 100.64%
Cu 324.752†           155132.6      499.23 ug/L         4.179      499.23 ppb          4.179   0.84%
   QC value within limits for Cu 324.752  Recovery = 99.85%
Fe 238.204 Radial†       184.1      5133.5 ug/L        38.00      5133.5 ppb         38.00   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.67%
K 766.490 Radial†      10776.8      4926.9 ug/L        70.87      4926.9 ppb         70.87   1.44%
   QC value within limits for K 766.490 Radial  Recovery = 98.54%
Mg 279.077 IEC†           53.7      5210.2 ug/L       142.45      5210.2 ppb        142.45   2.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.20%
Mn 257.610†           375669.5      492.58 ug/L         4.093      492.58 ppb          4.093   0.83%
   QC value within limits for Mn 257.610  Recovery = 98.52%
Mo 202.031†             5791.5      500.34 ug/L         3.273      500.34 ppb          3.273   0.65%
   QC value within limits for Mo 202.031  Recovery = 100.07%
Na 589.592 Radial†     30507.7       10188 ug/L          99.2       10188 ppb           99.2   0.97%
   QC value within limits for Na 589.592 Radial  Recovery = 101.88%
Ni 231.604†            16163.6      509.15 ug/L         4.836      509.15 ppb          4.836   0.95%
   QC value within limits for Ni 231.604  Recovery = 101.83%
P 214.914†              3300.8      2409.7 ug/L        20.76      2409.7 ppb         20.76   0.86%
   QC value within limits for P 214.914  Recovery = 96.39%
Pb 220.353†             3238.7      502.91 ug/L         1.991      502.91 ppb          1.991   0.40%
   QC value within limits for Pb 220.353  Recovery = 100.58%
S 181.975 Axial†         554.7      988.45 ug/L        10.810      988.45 ppb         10.810   1.09%
   QC value within limits for S 181.975 Axial  Recovery = 98.85%
Sb 206.836†             1204.8      517.28 ug/L         1.399      517.28 ppb          1.399   0.27%
   QC value within limits for Sb 206.836  Recovery = 103.46%
Se 196.026†              623.7      524.52 ug/L         7.153      524.52 ppb          7.153   1.36%
   QC value within limits for Se 196.026  Recovery = 104.90%
Si 251.611†            67648.8      2502.2 ug/L        21.05      2502.2 ppb         21.05   0.84%
   QC value within limits for Si 251.611  Recovery = 100.09%
Sn 189.927†             2210.8      502.96 ug/L         2.580      502.96 ppb          2.580   0.51%
   QC value within limits for Sn 189.927  Recovery = 100.59%
Sr 421.552†            52325.1      518.82 ug/L         5.768      518.82 ppb          5.768   1.11%
   QC value within limits for Sr 421.552  Recovery = 103.76%
Ti 334.940†           288889.5      490.85 ug/L         3.864      490.85 ppb          3.864   0.79%
   QC value within limits for Ti 334.940  Recovery = 98.17%
Tl 190.801†             1297.2      506.44 ug/L         1.403      506.44 ppb          1.403   0.28%
   QC value within limits for Tl 190.801  Recovery = 101.29%
U 409.014†             17529.5      510.20 ug/L         6.514      510.20 ppb          6.514   1.28%
   QC value within limits for U 409.014  Recovery = 102.04%
V 292.402†             64156.0      507.51 ug/L         3.771      507.51 ppb          3.771   0.74%
   QC value within limits for V 292.402  Recovery = 101.50%
Zn 213.857†            41555.4      499.52 ug/L         4.199      499.52 ppb          4.199   0.84%
   QC value within limits for Zn 213.857  Recovery = 99.90%
SiO2†                  67674.3      5302.5 ug/L        53.44      5302.5 ppb         53.44   1.01%
   QC value within limits for SiO2  Recovery = 99.16%
All analyte(s) passed QC.
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Sequence No.: 9 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/10/2010 10:02:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3127.1	3127.1	93.3	%			10:04:51
1	Y RADIAL	2559.0	2559.0	93.28	%			10:04:51
1	Al 396.153Radial†	-56.9	-0.9	-1.9309	ug/L	-1.9309	ppb	10:04:51
1	Ca 317.933Radial†	7.6	-2.0	-8.0319	ug/L	-8.0319	ppb	10:04:51
1	Fe 238.204 Radial†	8.0	-0.1	-2.1538	ug/L	-2.1538	ppb	10:04:51
1	K 766.490 Radial†	2154.1	193.5	88.601	ug/L	88.601	ppb	10:04:31
1	Mg 279.077 IEC†	3.0	2.7	265.54	ug/L	265.54	ppb	10:04:51
1	Na 589.592 Radial†	-809.4	-84.6	-28.251	ug/L	-28.251	ppb	10:04:31
1	Sr 421.552†	46.7	14.3	0.1422	ug/L	0.1422	ppb	10:04:31
1	Sc 361.383	800114.2	800114.2	95.851	%			10:05:48
1	Y 371.029	686130.5	686130.5	95.873	%			10:05:48
1	Ag 328.068†	214.5	64.7	0.3268	ug/L	0.3268	ppb	10:05:48
1	As 188.979†	-18.4	-3.3	-1.8163	ug/L	-1.8163	ppb	10:06:08
1	B 249.677†	-193.0	-111.2	-3.1163	ug/L	-3.1163	ppb	10:06:08
1	Ba 233.527†	3.8	11.1	0.1024	ug/L	0.1024	ppb	10:06:08
1	Be 313.107†	-3457.6	5.3	0.0025	ug/L	0.0025	ppb	10:05:48
1	Cd 226.502†	-127.9	8.2	0.1181	ug/L	0.1181	ppb	10:06:08
1	Co 228.616†	-45.0	-3.4	-0.0867	ug/L	-0.0867	ppb	10:06:08
1	Cr 267.716†	60.3	-2.8	-0.0363	ug/L	-0.0363	ppb	10:06:08
1	Cu 324.752†	6178.0	374.9	1.2090	ug/L	1.2090	ppb	10:05:48
1	Mn 257.610†	490.6	122.2	0.1490	ug/L	0.1490	ppb	10:06:08
1	Mo 202.031†	15.2	2.1	0.1819	ug/L	0.1819	ppb	10:06:08
1	Ni 231.604†	77.2	27.5	0.8684	ug/L	0.8684	ppb	10:06:08
1	P 214.914†	166.8	-1.4	-1.2706	ug/L	-1.2706	ppb	10:06:08
1	Pb 220.353†	-31.3	11.3	1.7446	ug/L	1.7446	ppb	10:06:08
1	S 181.975 Axial†	32.5	3.0	5.4269	ug/L	5.4269	ppb	10:06:08
1	Sb 206.836†	26.7	-0.6	-0.2390	ug/L	-0.2390	ppb	10:06:08
1	Se 196.026†	-14.3	4.3	3.4798	ug/L	3.4798	ppb	10:06:08
1	Si 251.611†	669.8	246.3	9.1314	ug/L	9.1314	ppb	10:06:08
1	Sn 189.927†	9.8	2.4	0.5342	ug/L	0.5342	ppb	10:06:08
1	Ti 334.940†	-881.6	40.5	0.0480	ug/L	0.0480	ppb	10:05:48
1	Tl 190.801†	-30.3	-0.6	-0.2281	ug/L	-0.2281	ppb	10:06:08
1	U 409.014†	-2065.2	-151.4	-4.4206	ug/L	-4.4206	ppb	10:05:48
1	V 292.402†	-1285.1	-93.9	-0.7337	ug/L	-0.7337	ppb	10:05:48
1	Zn 213.857†	513.4	33.2	0.3958	ug/L	0.3958	ppb	10:06:08
1	SiO2†	666.3	216.7	17.015	ug/L	17.015	ppb	10:07:19
2	Sc Radial	3176.5	3176.5	94.8	%			10:05:16
2	Y RADIAL	2593.8	2593.8	94.55	%			10:05:16
2	Al 396.153Radial†	-52.0	5.1	11.015	ug/L	11.015	ppb	10:05:16
2	Ca 317.933Radial†	9.0	-0.7	-2.7766	ug/L	-2.7766	ppb	10:05:16
2	Fe 238.204 Radial†	8.2	-0.0	-0.1734	ug/L	-0.1734	ppb	10:05:16
2	K 766.490 Radial†	2048.0	45.7	20.946	ug/L	20.946	ppb	10:04:56
2	Mg 279.077 IEC†	1.4	1.0	95.785	ug/L	95.785	ppb	10:05:16
2	Na 589.592 Radial†	-836.8	-99.9	-33.378	ug/L	-33.378	ppb	10:04:56
2	Sr 421.552†	21.5	-13.0	-0.1292	ug/L	-0.1292	ppb	10:04:56
2	Sc 361.383	813353.9	813353.9	97.437	%			10:06:13
2	Y 371.029	696702.6	696702.6	97.350	%			10:06:13
2	Ag 328.068†	143.9	-11.3	-0.0558	ug/L	-0.0558	ppb	10:06:13
2	As 188.979†	-13.8	1.8	0.9947	ug/L	0.9947	ppb	10:06:33
2	B 249.677†	-195.2	-110.2	-3.0885	ug/L	-3.0885	ppb	10:06:33
2	Ba 233.527†	10.0	17.5	0.1626	ug/L	0.1626	ppb	10:06:33
2	Be 313.107†	-3497.2	23.4	0.0104	ug/L	0.0104	ppb	10:06:13
2	Cd 226.502†	-146.5	-8.8	-0.1278	ug/L	-0.1278	ppb	10:06:33
2	Co 228.616†	-35.7	6.9	0.1788	ug/L	0.1788	ppb	10:06:33
2	Cr 267.716†	76.9	13.2	0.1728	ug/L	0.1728	ppb	10:06:33
2	Cu 324.752†	6154.6	246.0	0.7936	ug/L	0.7936	ppb	10:06:13
2	Mn 257.610†	469.7	92.4	0.1172	ug/L	0.1172	ppb	10:06:33
2	Mo 202.031†	15.1	1.7	0.1501	ug/L	0.1501	ppb	10:06:33
2	Ni 231.604†	78.7	27.7	0.8733	ug/L	0.8733	ppb	10:06:33

2	P 214.914†	174.2	3.4	2.4404 ug/L	2.4404 ppb		10:06:33
2	Pb 220.353†	-51.0	-8.4	-1.3001 ug/L	-1.3001 ppb		10:06:33
2	S 181.975 Axial†	21.7	-8.6	-15.343 ug/L	-15.343 ppb		10:06:33
2	Sb 206.836†	29.3	1.6	0.6310 ug/L	0.6310 ppb		10:06:33
2	Se 196.026†	-32.5	-14.2	-11.524 ug/L	-11.524 ppb		10:06:33
2	Si 251.611†	658.2	223.1	8.2697 ug/L	8.2697 ppb		10:06:33
2	Sn 189.927†	1.4	-6.4	-1.4453 ug/L	-1.4453 ppb		10:06:33
2	Ti 334.940†	-853.4	84.4	0.1367 ug/L	0.1367 ppb		10:06:13
2	Tl 190.801†	-28.5	1.8	0.6887 ug/L	0.6887 ppb		10:06:33
2	U 409.014†	-2058.8	-109.8	-3.2060 ug/L	-3.2060 ppb		10:06:13
2	V 292.402†	-1247.3	-33.3	-0.2627 ug/L	-0.2627 ppb		10:06:13
2	Zn 213.857†	513.4	24.4	0.2897 ug/L	0.2897 ppb		10:06:33
2	SiO2†	676.7	216.0	16.964 ug/L	16.964 ppb		10:07:39
3	Sc Radial	3189.3	3189.3	95.2 %			10:05:41
3	Y RADIAL	2618.4	2618.4	95.45 %			10:05:41
3	Al 396.153Radial†	-53.4	3.9	8.3857 ug/L	8.3857 ppb		10:05:41
3	Ca 317.933Radial†	7.7	-2.2	-8.6240 ug/L	-8.6240 ppb		10:05:41
3	Fe 238.204 Radial†	7.3	-0.9	-25.448 ug/L	-25.448 ppb		10:05:41
3	K 766.490 Radial†	2020.0	7.7	3.5083 ug/L	3.5083 ppb		10:05:21
3	Mg 279.077 IEC†	4.6	4.4	424.36 ug/L	424.36 ppb		10:05:41
3	Na 589.592 Radial†	-773.8	-30.3	-10.130 ug/L	-10.130 ppb		10:05:21
3	Sr 421.552†	-11.4	-47.7	-0.4726 ug/L	-0.4726 ppb		10:05:21
3	Sc 361.383	799769.3	799769.3	95.810 %			10:06:39
3	Y 371.029	684828.4	684828.4	95.691 %			10:06:39
3	Ag 328.068†	128.1	-25.3	-0.1339 ug/L	-0.1339 ppb		10:06:39
3	As 188.979†	-17.4	-2.2	-1.2573 ug/L	-1.2573 ppb		10:06:59
3	B 249.677†	-205.8	-124.6	-3.4892 ug/L	-3.4892 ppb		10:06:59
3	Ba 233.527†	17.7	25.7	0.2393 ug/L	0.2393 ppb		10:06:59
3	Be 313.107†	-3520.6	-62.0	-0.0269 ug/L	-0.0269 ppb		10:06:39
3	Cd 226.502†	-147.1	-12.0	-0.1704 ug/L	-0.1704 ppb		10:06:59
3	Co 228.616†	-50.1	-8.8	-0.2260 ug/L	-0.2260 ppb		10:06:59
3	Cr 267.716†	57.4	-5.8	-0.0760 ug/L	-0.0760 ppb		10:06:59
3	Cu 324.752†	6131.7	329.4	1.0594 ug/L	1.0594 ppb		10:06:39
3	Mn 257.610†	470.9	101.8	0.1135 ug/L	0.1135 ppb		10:06:59
3	Mo 202.031†	17.0	4.0	0.3409 ug/L	0.3409 ppb		10:06:59
3	Ni 231.604†	68.7	18.7	0.5892 ug/L	0.5892 ppb		10:06:59
3	P 214.914†	181.2	13.8	10.265 ug/L	10.265 ppb		10:06:59
3	Pb 220.353†	-51.4	-9.7	-1.4976 ug/L	-1.4976 ppb		10:06:59
3	S 181.975 Axial†	30.4	0.9	1.5606 ug/L	1.5606 ppb		10:06:59
3	Sb 206.836†	32.5	5.4	2.2705 ug/L	2.2705 ppb		10:06:59
3	Se 196.026†	-23.7	-5.5	-4.5496 ug/L	-4.5496 ppb		10:06:59
3	Si 251.611†	642.9	218.6	8.1026 ug/L	8.1026 ppb		10:06:59
3	Sn 189.927†	9.3	1.9	0.4207 ug/L	0.4207 ppb		10:06:59
3	Ti 334.940†	-946.5	-27.6	-0.0821 ug/L	-0.0821 ppb		10:06:39
3	Tl 190.801†	-19.8	10.4	4.0209 ug/L	4.0209 ppb		10:06:59
3	U 409.014†	-1965.4	-48.1	-1.4030 ug/L	-1.4030 ppb		10:06:39
3	V 292.402†	-1174.2	21.2	0.1794 ug/L	0.1794 ppb		10:06:39
3	Zn 213.857†	516.4	36.5	0.4416 ug/L	0.4416 ppb		10:06:59
3	SiO2†	656.3	206.5	16.212 ug/L	16.212 ppb		10:07:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	804412.5	96.366	%	0.9279				0.96%
Sc Radial	3164.3	94.4	%	0.98				1.04%
Y 371.029	689220.5	96.305	%	0.9100				0.94%
Y RADIAL	2590.4	94.43	%	1.088				1.15%
Ag 328.068†	9.3	0.0457	ug/L	0.24656	0.0457	ppb	0.24656	539.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.7	5.8232	ug/L	6.84271	5.8232	ppb	6.84271	117.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-0.6930	ug/L	1.48806	-0.6930	ppb	1.48806	214.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-115.3	-3.2313	ug/L	0.22372	-3.2313	ppb	0.22372	6.92%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.1	0.1681	ug/L	0.06861	0.1681	ppb	0.06861	40.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-11.1	-0.0047	ug/L	0.01963	-0.0047	ppb	0.01963	421.15%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.6	-6.4775	ug/L	3.21870	-6.4775	ppb	3.21870	49.69%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -4.2     -0.0600 ug/L       0.15573     -0.0600 ppb        0.15573 259.42%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -1.7     -0.0446 ug/L       0.20564     -0.0446 ppb        0.20564 460.77%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               1.5      0.0202 ug/L       0.13363      0.0202 ppb        0.13363 662.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             316.8      1.0207 ug/L       0.21040      1.0207 ppb        0.21040  20.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.3     -9.2583 ug/L      14.05529     -9.2583 ppb       14.05529 151.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        82.3      37.685 ug/L       44.9482      37.685 ppb        44.9482 119.27%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.7      261.90 ug/L       164.320      261.90 ppb        164.320  62.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             105.4      0.1266 ug/L       0.01953      0.1266 ppb        0.01953  15.43%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.6      0.2243 ug/L       0.10222      0.2243 ppb        0.10222  45.57%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -71.6     -23.920 ug/L       12.2146     -23.920 ppb        12.2146  51.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              24.6      0.7770 ug/L       0.16263      0.7770 ppb        0.16263  20.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                5.3      3.8115 ug/L       5.88853      3.8115 ppb        5.88853 154.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.3     -0.3510 ug/L       1.81757     -0.3510 ppb        1.81757 517.79%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.6     -2.7852 ug/L      11.04600     -2.7852 ppb       11.04600 396.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.1      0.8875 ug/L       1.27425      0.8875 ppb        1.27425 143.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -5.1     -4.1980 ug/L       7.50809     -4.1980 ppb        7.50809 178.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             229.4      8.5012 ug/L       0.55212      8.5012 ppb        0.55212   6.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.7     -0.1635 ug/L       1.11156     -0.1635 ppb        1.11156 680.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -15.5     -0.1532 ug/L       0.30811     -0.1532 ppb        0.30811 201.11%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              32.4      0.0342 ug/L       0.11002      0.0342 ppb        0.11002 321.82%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.8      1.4939 ug/L       2.23599      1.4939 ppb        2.23599 149.68%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -103.1     -3.0099 ug/L       1.51834     -3.0099 ppb        1.51834  50.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -35.4     -0.2723 ug/L       0.45661     -0.2723 ppb        0.45661 167.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              31.4      0.3757 ug/L       0.07794      0.3757 ppb        0.07794  20.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   213.1      16.730 ug/L        0.4493      16.730 ppb         0.4493   2.69%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/10/2010 10:38:17**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3379.5	3379.5	101	%			10:40:29
1	Y RADIAL	2743.2	2743.2	100.00	%			10:40:29
1	Al 396.153Radial†	2216.8	2257.8	4828.5	ug/L	4828.5	ppb	10:40:09
1	Ca 317.933Radial†	1277.1	1255.9	4984.3	ug/L	4984.3	ppb	10:40:29
1	Fe 238.204 Radial†	189.8	179.5	5005.5	ug/L	5005.5	ppb	10:40:29
1	K 766.490 Radial†	12686.5	10463.0	4783.4	ug/L	4783.4	ppb	10:40:09
1	Mg 279.077 IEC†	51.8	50.9	4937.1	ug/L	4937.1	ppb	10:40:29
1	Na 589.592 Radial†	28953.9	29487.5	9847.5	ug/L	9847.5	ppb	10:40:09
1	Sr 421.552†	51172.1	50696.4	502.67	ug/L	502.67	ppb	10:40:09
1	Sc 361.383	856718.9	856718.9	102.63	%			10:41:27
1	Y 371.029	724800.2	724800.2	101.28	%			10:41:27
1	Ag 328.068†	101031.8	98281.4	499.60	ug/L	499.60	ppb	10:41:32
1	As 188.979†	891.1	884.3	495.74	ug/L	495.74	ppb	10:41:52
1	B 249.677†	17557.8	17197.7	479.85	ug/L	479.85	ppb	10:41:32
1	Ba 233.527†	53968.2	52591.2	492.41	ug/L	492.41	ppb	10:41:32
1	Be 313.107†	1185388.0	1158596.6	501.11	ug/L	501.11	ppb	10:41:27
1	Cd 226.502†	34837.1	34085.1	492.61	ug/L	492.61	ppb	10:41:32
1	Co 228.616†	19792.0	19327.9	501.33	ug/L	501.33	ppb	10:41:32
1	Cr 267.716†	38782.0	37721.5	492.73	ug/L	492.73	ppb	10:41:32
1	Cu 324.752†	163150.9	152895.8	492.03	ug/L	492.03	ppb	10:41:32
1	Mn 257.610†	389804.6	379416.8	497.49	ug/L	497.49	ppb	10:41:27
1	Mo 202.031†	5860.9	5696.8	492.15	ug/L	492.15	ppb	10:41:52
1	Ni 231.604†	16346.6	15874.3	500.04	ug/L	500.04	ppb	10:41:32
1	P 214.914†	3501.1	3235.9	2361.8	ug/L	2361.8	ppb	10:41:52
1	Pb 220.353†	3233.0	3194.0	495.94	ug/L	495.94	ppb	10:41:52
1	S 181.975 Axial†	590.4	544.4	970.06	ug/L	970.06	ppb	10:41:52
1	Sb 206.836†	1245.1	1184.7	508.61	ug/L	508.61	ppb	10:41:52
1	Se 196.026†	612.1	615.6	517.50	ug/L	517.50	ppb	10:41:52
1	Si 251.611†	68722.2	66507.2	2459.9	ug/L	2459.9	ppb	10:41:32
1	Sn 189.927†	2228.6	2163.6	492.24	ug/L	492.24	ppb	10:41:52
1	Ti 334.940†	290890.5	284389.7	483.22	ug/L	483.22	ppb	10:41:32
1	Tl 190.801†	1286.7	1284.8	501.62	ug/L	501.62	ppb	10:41:52
1	U 409.014†	15742.0	17341.4	504.74	ug/L	504.74	ppb	10:41:32
1	V 292.402†	63418.6	63038.7	498.69	ug/L	498.69	ppb	10:41:32
1	Zn 213.857†	42421.5	40831.0	490.82	ug/L	490.82	ppb	10:41:32
1	SiO2†	69468.2	67208.0	5266.1	ug/L	5266.1	ppb	10:42:59
2	Sc Radial	3338.2	3338.2	99.6	%			10:40:54
2	Y RADIAL	2709.1	2709.1	98.76	%			10:40:54
2	Al 396.153Radial†	2278.3	2346.7	5019.2	ug/L	5019.2	ppb	10:40:34
2	Ca 317.933Radial†	1269.4	1263.8	5015.6	ug/L	5015.6	ppb	10:40:54
2	Fe 238.204 Radial†	186.0	178.0	4963.7	ug/L	4963.7	ppb	10:40:54
2	K 766.490 Radial†	12938.4	10871.4	4970.1	ug/L	4970.1	ppb	10:40:34
2	Mg 279.077 IEC†	52.8	52.5	5096.9	ug/L	5096.9	ppb	10:40:54
2	Na 589.592 Radial†	29941.4	30833.8	10297	ug/L	10297	ppb	10:40:34
2	Sr 421.552†	52859.6	53017.8	525.69	ug/L	525.69	ppb	10:40:34
2	Sc 361.383	843862.0	843862.0	101.09	%			10:41:58
2	Y 371.029	715020.9	715020.9	99.910	%			10:41:58
2	Ag 328.068†	101637.0	100379.9	510.23	ug/L	510.23	ppb	10:42:03
2	As 188.979†	887.9	894.3	501.40	ug/L	501.40	ppb	10:42:23
2	B 249.677†	17778.7	17676.8	493.26	ug/L	493.26	ppb	10:42:03
2	Ba 233.527†	54338.0	53758.2	503.33	ug/L	503.33	ppb	10:42:03
2	Be 313.107†	1169926.6	1160899.3	502.13	ug/L	502.13	ppb	10:41:58
2	Cd 226.502†	35057.5	34820.3	503.25	ug/L	503.25	ppb	10:42:03
2	Co 228.616†	19927.5	19755.7	512.42	ug/L	512.42	ppb	10:42:03
2	Cr 267.716†	39068.8	38581.0	503.95	ug/L	503.95	ppb	10:42:03
2	Cu 324.752†	163832.3	155991.9	501.99	ug/L	501.99	ppb	10:42:03
2	Mn 257.610†	384348.4	379806.3	497.99	ug/L	497.99	ppb	10:41:58
2	Mo 202.031†	5849.2	5772.2	498.66	ug/L	498.66	ppb	10:42:23
2	Ni 231.604†	16399.2	16169.0	509.32	ug/L	509.32	ppb	10:42:03

2	P 214.914†	3500.7	3287.4	2399.1 ug/L	2399.1 ppb	10:42:23
2	Pb 220.353†	3226.2	3235.2	502.39 ug/L	502.39 ppb	10:42:23
2	S 181.975 Axial†	595.5	558.2	994.73 ug/L	994.73 ppb	10:42:23
2	Sb 206.836†	1247.2	1205.3	517.42 ug/L	517.42 ppb	10:42:23
2	Se 196.026†	605.4	618.1	519.47 ug/L	519.47 ppb	10:42:23
2	Si 251.611†	68985.5	67787.8	2507.3 ug/L	2507.3 ppb	10:42:03
2	Sn 189.927†	2238.3	2206.3	501.95 ug/L	501.95 ppb	10:42:23
2	Ti 334.940†	292686.5	290484.6	493.56 ug/L	493.56 ppb	10:42:03
2	Tl 190.801†	1277.3	1294.6	505.45 ug/L	505.45 ppb	10:42:23
2	U 409.014†	15861.5	17693.3	515.00 ug/L	515.00 ppb	10:42:03
2	V 292.402†	63849.4	64406.3	509.47 ug/L	509.47 ppb	10:42:03
2	Zn 213.857†	42519.4	41557.6	499.57 ug/L	499.57 ppb	10:42:03
2	SiO2†	68551.5	67332.4	5275.7 ug/L	5275.7 ppb	10:43:04
3	Sc Radial	3361.5	3361.5	100 %		10:41:19
3	Y RADIAL	2722.7	2722.7	99.25 %		10:41:19
3	Al 396.153Radial†	2282.1	2334.6	4993.6 ug/L	4993.6 ppb	10:40:59
3	Ca 317.933Radial†	1279.4	1265.0	5020.3 ug/L	5020.3 ppb	10:41:19
3	Fe 238.204 Radial†	194.8	185.6	5172.6 ug/L	5172.6 ppb	10:41:19
3	K 766.490 Radial†	12843.7	10686.9	4885.7 ug/L	4885.7 ppb	10:40:59
3	Mg 279.077 IEC†	53.2	52.6	5106.7 ug/L	5106.7 ppb	10:41:19
3	Na 589.592 Radial†	29816.0	30500.2	10186 ug/L	10186 ppb	10:40:59
3	Sr 421.552†	52596.0	52386.8	519.43 ug/L	519.43 ppb	10:40:59
3	Sc 361.383	857599.4	857599.4	102.74 %		10:42:29
3	Y 371.029	726062.6	726062.6	101.45 %		10:42:29
3	Ag 328.068†	101130.6	98276.5	499.63 ug/L	499.63 ppb	10:42:34
3	As 188.979†	896.5	888.5	498.16 ug/L	498.16 ppb	10:42:54
3	B 249.677†	17682.8	17301.8	482.74 ug/L	482.74 ppb	10:42:34
3	Ba 233.527†	54188.8	52751.9	493.91 ug/L	493.91 ppb	10:42:34
3	Be 313.107†	1188203.9	1160151.6	501.78 ug/L	501.78 ppb	10:42:29
3	Cd 226.502†	34978.4	34187.8	494.08 ug/L	494.08 ppb	10:42:34
3	Co 228.616†	19810.3	19325.9	501.28 ug/L	501.28 ppb	10:42:34
3	Cr 267.716†	38849.6	37748.6	493.09 ug/L	493.09 ppb	10:42:34
3	Cu 324.752†	163021.3	152606.4	491.11 ug/L	491.11 ppb	10:42:34
3	Mn 257.610†	390632.7	379832.9	498.04 ug/L	498.04 ppb	10:42:29
3	Mo 202.031†	5866.7	5696.6	492.15 ug/L	492.15 ppb	10:42:54
3	Ni 231.604†	16457.8	15966.2	502.94 ug/L	502.94 ppb	10:42:34
3	P 214.914†	3520.2	3251.0	2373.4 ug/L	2373.4 ppb	10:42:54
3	Pb 220.353†	3251.5	3208.7	498.25 ug/L	498.25 ppb	10:42:54
3	S 181.975 Axial†	592.1	545.5	972.02 ug/L	972.02 ppb	10:42:54
3	Sb 206.836†	1258.4	1196.4	513.50 ug/L	513.50 ppb	10:42:54
3	Se 196.026†	605.0	608.0	511.88 ug/L	511.88 ppb	10:42:54
3	Si 251.611†	68812.5	66526.3	2460.6 ug/L	2460.6 ppb	10:42:34
3	Sn 189.927†	2246.1	2178.4	495.61 ug/L	495.61 ppb	10:42:54
3	Ti 334.940†	291369.9	284565.3	483.51 ug/L	483.51 ppb	10:42:34
3	Tl 190.801†	1291.9	1288.5	503.08 ug/L	503.08 ppb	10:42:54
3	U 409.014†	15694.8	17279.7	502.92 ug/L	502.92 ppb	10:42:34
3	V 292.402†	63570.9	63123.5	499.32 ug/L	499.32 ppb	10:42:34
3	Zn 213.857†	42455.0	40821.2	490.66 ug/L	490.66 ppb	10:42:34
3	SiO2†	69191.3	66869.0	5239.4 ug/L	5239.4 ppb	10:43:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852726.8	102.15	%	0.921				0.90%
Sc Radial	3359.7	100	%	0.6				0.62%
Y 371.029	721961.2	100.88	%	0.844				0.84%
Y RADIAL	2725.0	99.33	%	0.624				0.63%
Ag 328.068†	98979.2	503.16	ug/L	6.125	503.16	ppb	6.125	1.22%
QC value within limits for Ag 328.068 Recovery = 100.63%								
Al 396.153Radial†	2313.0	4947.1	ug/L	103.52	4947.1	ppb	103.52	2.09%
QC value within limits for Al 396.153Radial Recovery = 98.94%								
As 188.979†	889.0	498.43	ug/L	2.838	498.43	ppb	2.838	0.57%
QC value within limits for As 188.979 Recovery = 99.69%								
B 249.677†	17392.1	485.28	ug/L	7.055	485.28	ppb	7.055	1.45%
QC value within limits for B 249.677 Recovery = 97.06%								
Ba 233.527†	53033.7	496.55	ug/L	5.918	496.55	ppb	5.918	1.19%
QC value within limits for Ba 233.527 Recovery = 99.31%								
Be 313.107†	1159882.5	501.67	ug/L	0.517	501.67	ppb	0.517	0.10%
QC value within limits for Be 313.107 Recovery = 100.33%								
Ca 317.933Radial†	1261.6	5006.7	ug/L	19.57	5006.7	ppb	19.57	0.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.13%
Cd 226.502†            34364.4      496.65 ug/L         5.766      496.65 ppb          5.766   1.16%
   QC value within limits for Cd 226.502  Recovery = 99.33%
Co 228.616†            19469.9      505.01 ug/L         6.419      505.01 ppb          6.419   1.27%
   QC value within limits for Co 228.616  Recovery = 101.00%
Cr 267.716†            38017.0      496.59 ug/L         6.376      496.59 ppb          6.376   1.28%
   QC value within limits for Cr 267.716  Recovery = 99.32%
Cu 324.752†           153831.3      495.04 ug/L         6.032      495.04 ppb          6.032   1.22%
   QC value within limits for Cu 324.752  Recovery = 99.01%
Fe 238.204 Radial†       181.0      5047.3 ug/L        110.51      5047.3 ppb         110.51   2.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.95%
K 766.490 Radial†      10673.8      4879.7 ug/L         93.53      4879.7 ppb          93.53   1.92%
   QC value within limits for K 766.490 Radial  Recovery = 97.59%
Mg 279.077 IEC†           52.0      5046.9 ug/L         95.25      5046.9 ppb          95.25   1.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.94%
Mn 257.610†           379685.3      497.84 ug/L         0.306      497.84 ppb          0.306   0.06%
   QC value within limits for Mn 257.610  Recovery = 99.57%
Mo 202.031†             5721.9      494.32 ug/L         3.758      494.32 ppb          3.758   0.76%
   QC value within limits for Mo 202.031  Recovery = 98.86%
Na 589.592 Radial†     30273.8       10110 ug/L         234.1       10110 ppb          234.1   2.32%
   QC value within limits for Na 589.592 Radial  Recovery = 101.10%
Ni 231.604†            16003.2      504.10 ug/L         4.749      504.10 ppb          4.749   0.94%
   QC value within limits for Ni 231.604  Recovery = 100.82%
P 214.914†              3258.1      2378.1 ug/L         19.12      2378.1 ppb          19.12   0.80%
   QC value within limits for P 214.914  Recovery = 95.12%
Pb 220.353†             3212.6      498.86 ug/L         3.270      498.86 ppb          3.270   0.66%
   QC value within limits for Pb 220.353  Recovery = 99.77%
S 181.975 Axial†         549.4      978.94 ug/L        13.713      978.94 ppb         13.713   1.40%
   QC value within limits for S 181.975 Axial  Recovery = 97.89%
Sb 206.836†             1195.4      513.18 ug/L         4.417      513.18 ppb          4.417   0.86%
   QC value within limits for Sb 206.836  Recovery = 102.64%
Se 196.026†              613.9      516.28 ug/L         3.942      516.28 ppb          3.942   0.76%
   QC value within limits for Se 196.026  Recovery = 103.26%
Si 251.611†            66940.4      2476.0 ug/L         27.17      2476.0 ppb          27.17   1.10%
   QC value within limits for Si 251.611  Recovery = 99.04%
Sn 189.927†             2182.8      496.60 ug/L         4.928      496.60 ppb          4.928   0.99%
   QC value within limits for Sn 189.927  Recovery = 99.32%
Sr 421.552†            52033.7      515.93 ug/L        11.902      515.93 ppb         11.902   2.31%
   QC value within limits for Sr 421.552  Recovery = 103.19%
Ti 334.940†           286479.9      486.76 ug/L         5.889      486.76 ppb          5.889   1.21%
   QC value within limits for Ti 334.940  Recovery = 97.35%
Tl 190.801†             1289.3      503.38 ug/L         1.930      503.38 ppb          1.930   0.38%
   QC value within limits for Tl 190.801  Recovery = 100.68%
U 409.014†             17438.1      507.55 ug/L         6.511      507.55 ppb          6.511   1.28%
   QC value within limits for U 409.014  Recovery = 101.51%
V 292.402†             63522.8      502.49 ug/L         6.049      502.49 ppb          6.049   1.20%
   QC value within limits for V 292.402  Recovery = 100.50%
Zn 213.857†            41069.9      493.68 ug/L         5.099      493.68 ppb          5.099   1.03%
   QC value within limits for Zn 213.857  Recovery = 98.74%
SiO2†                  67136.4      5260.4 ug/L         18.77      5260.4 ppb          18.77   0.36%
   QC value within limits for SiO2  Recovery = 98.37%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/10/2010 10:45:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3187.5	3187.5	95.1	%			10:47:33
1	Y RADIAL	2592.5	2592.5	94.50	%			10:47:33
1	Al 396.153Radial†	-61.7	-4.9	-10.434	ug/L	-10.434	ppb	10:47:33
1	Ca 317.933Radial†	11.7	2.1	8.3309	ug/L	8.3309	ppb	10:47:33
1	Fe 238.204 Radial†	6.3	-2.0	-55.053	ug/L	-55.053	ppb	10:47:33
1	K 766.490 Radial†	2160.4	156.3	71.571	ug/L	71.571	ppb	10:47:13
1	Mg 279.077 IEC†	2.5	2.2	214.45	ug/L	214.45	ppb	10:47:33
1	Na 589.592 Radial†	-762.0	-18.3	-6.1230	ug/L	-6.1230	ppb	10:47:13
1	Sr 421.552†	42.9	9.4	0.0928	ug/L	0.0928	ppb	10:47:13
1	Sc 361.383	810185.2	810185.2	97.058	%			10:48:29
1	Y 371.029	692781.0	692781.0	96.802	%			10:48:29
1	Ag 328.068†	162.3	8.2	0.0258	ug/L	0.0258	ppb	10:48:29
1	As 188.979†	-16.1	-0.6	-0.3543	ug/L	-0.3543	ppb	10:48:49
1	B 249.677†	-247.4	-164.7	-4.6080	ug/L	-4.6080	ppb	10:48:49
1	Ba 233.527†	-0.6	6.6	0.0603	ug/L	0.0603	ppb	10:48:49
1	Be 313.107†	-3597.5	-94.0	-0.0406	ug/L	-0.0406	ppb	10:48:29
1	Cd 226.502†	-142.5	-5.2	-0.0695	ug/L	-0.0695	ppb	10:48:49
1	Co 228.616†	-40.5	1.8	0.0473	ug/L	0.0473	ppb	10:48:49
1	Cr 267.716†	59.2	-4.8	-0.0638	ug/L	-0.0638	ppb	10:48:49
1	Cu 324.752†	6232.3	350.8	1.1263	ug/L	1.1263	ppb	10:48:29
1	Mn 257.610†	474.8	99.5	0.1162	ug/L	0.1162	ppb	10:48:49
1	Mo 202.031†	7.5	-6.0	-0.5262	ug/L	-0.5262	ppb	10:48:49
1	Ni 231.604†	62.5	11.4	0.3584	ug/L	0.3584	ppb	10:48:49
1	P 214.914†	164.3	-6.1	-4.8413	ug/L	-4.8413	ppb	10:48:49
1	Pb 220.353†	-44.5	-1.9	-0.2975	ug/L	-0.2975	ppb	10:48:49
1	S 181.975 Axial†	29.3	-0.6	-1.1471	ug/L	-1.1471	ppb	10:48:49
1	Sb 206.836†	27.3	-0.3	-0.1359	ug/L	-0.1359	ppb	10:48:49
1	Se 196.026†	-24.0	-5.6	-4.6725	ug/L	-4.6725	ppb	10:48:49
1	Si 251.611†	552.4	116.8	4.3359	ug/L	4.3359	ppb	10:48:49
1	Sn 189.927†	7.0	-0.6	-0.1392	ug/L	-0.1392	ppb	10:48:49
1	Ti 334.940†	-941.6	-9.9	-0.0328	ug/L	-0.0328	ppb	10:48:29
1	Tl 190.801†	-31.3	-1.1	-0.4399	ug/L	-0.4399	ppb	10:48:49
1	U 409.014†	-1966.3	-22.8	-0.6590	ug/L	-0.6590	ppb	10:48:29
1	V 292.402†	-1176.0	35.1	0.2775	ug/L	0.2775	ppb	10:48:29
1	Zn 213.857†	529.9	43.5	0.5327	ug/L	0.5327	ppb	10:48:49
1	SiO2†	555.9	94.3	7.4210	ug/L	7.4210	ppb	10:50:00
2	Sc Radial	3163.1	3163.1	94.4	%			10:47:58
2	Y RADIAL	2574.4	2574.4	93.84	%			10:47:58
2	Al 396.153Radial†	-67.0	-11.0	-23.586	ug/L	-23.586	ppb	10:47:58
2	Ca 317.933Radial†	11.8	2.3	9.2414	ug/L	9.2414	ppb	10:47:58
2	Fe 238.204 Radial†	8.3	0.1	3.8976	ug/L	3.8976	ppb	10:47:58
2	K 766.490 Radial†	2124.7	136.1	62.314	ug/L	62.314	ppb	10:47:38
2	Mg 279.077 IEC†	2.5	2.1	208.41	ug/L	208.41	ppb	10:47:58
2	Na 589.592 Radial†	-801.2	-66.0	-22.051	ug/L	-22.051	ppb	10:47:38
2	Sr 421.552†	8.2	-27.0	-0.2677	ug/L	-0.2677	ppb	10:47:38
2	Sc 361.383	818187.8	818187.8	98.017	%			10:48:55
2	Y 371.029	700353.5	700353.5	97.861	%			10:48:55
2	Ag 328.068†	192.7	37.5	0.1902	ug/L	0.1902	ppb	10:48:55
2	As 188.979†	-20.0	-4.4	-2.4544	ug/L	-2.4544	ppb	10:49:15
2	B 249.677†	-235.3	-149.8	-4.2009	ug/L	-4.2009	ppb	10:49:15
2	Ba 233.527†	16.9	24.4	0.2280	ug/L	0.2280	ppb	10:49:15
2	Be 313.107†	-3532.8	8.3	0.0039	ug/L	0.0039	ppb	10:48:55
2	Cd 226.502†	-143.1	-4.4	-0.0636	ug/L	-0.0636	ppb	10:49:15
2	Co 228.616†	-43.1	-0.4	-0.0099	ug/L	-0.0099	ppb	10:49:15
2	Cr 267.716†	65.7	1.3	0.0174	ug/L	0.0174	ppb	10:49:15
2	Cu 324.752†	6227.3	282.9	0.9107	ug/L	0.9107	ppb	10:48:55
2	Mn 257.610†	496.0	116.4	0.1443	ug/L	0.1443	ppb	10:49:15
2	Mo 202.031†	20.0	6.7	0.5767	ug/L	0.5767	ppb	10:49:15
2	Ni 231.604†	77.9	26.5	0.8346	ug/L	0.8346	ppb	10:49:15

2	P 214.914†	171.2	-0.8	-0.7626 ug/L	-0.7626 ppb	10:49:15
2	Pb 220.353†	-52.9	-10.0	-1.5531 ug/L	-1.5531 ppb	10:49:15
2	S 181.975 Axial†	28.5	-1.8	-3.2294 ug/L	-3.2294 ppb	10:49:15
2	Sb 206.836†	32.9	5.1	2.1288 ug/L	2.1288 ppb	10:49:15
2	Se 196.026†	-21.9	-3.2	-2.5763 ug/L	-2.5763 ppb	10:49:15
2	Si 251.611†	579.5	138.8	5.1385 ug/L	5.1385 ppb	10:49:15
2	Sn 189.927†	7.0	-0.6	-0.1446 ug/L	-0.1446 ppb	10:49:15
2	Ti 334.940†	-863.7	79.1	0.1188 ug/L	0.1188 ppb	10:48:55
2	Tl 190.801†	-33.0	-2.6	-1.0210 ug/L	-1.0210 ppb	10:49:15
2	U 409.014†	-1969.3	-5.9	-0.1742 ug/L	-0.1742 ppb	10:48:55
2	V 292.402†	-1242.0	-20.4	-0.1478 ug/L	-0.1478 ppb	10:48:55
2	Zn 213.857†	546.1	54.7	0.6562 ug/L	0.6562 ppb	10:49:15
2	SiO2†	584.6	118.0	9.2535 ug/L	9.2535 ppb	10:50:20
3	Sc Radial	3237.9	3237.9	96.6 %		10:48:23
3	Y RADIAL	2622.3	2622.3	95.59 %		10:48:23
3	Al 396.153Radial†	-63.1	-5.3	-11.392 ug/L	-11.392 ppb	10:48:23
3	Ca 317.933Radial†	8.4	-1.6	-6.2189 ug/L	-6.2189 ppb	10:48:23
3	Fe 238.204 Radial†	7.8	-0.6	-15.910 ug/L	-15.910 ppb	10:48:23
3	K 766.490 Radial†	2263.6	227.8	104.30 ug/L	104.30 ppb	10:48:03
3	Mg 279.077 IEC†	0.1	-0.4	-35.920 ug/L	-35.920 ppb	10:48:23
3	Na 589.592 Radial†	-792.7	-37.6	-12.562 ug/L	-12.562 ppb	10:48:03
3	Sr 421.552†	23.4	-11.5	-0.1139 ug/L	-0.1139 ppb	10:48:03
3	Sc 361.383	810820.6	810820.6	97.134 %		10:49:20
3	Y 371.029	693823.2	693823.2	96.948 %		10:49:20
3	Ag 328.068†	162.9	8.6	0.0409 ug/L	0.0409 ppb	10:49:20
3	As 188.979†	-20.6	-5.2	-2.8998 ug/L	-2.8998 ppb	10:49:40
3	B 249.677†	-267.4	-185.1	-5.1848 ug/L	-5.1848 ppb	10:49:40
3	Ba 233.527†	13.7	21.3	0.1982 ug/L	0.1982 ppb	10:49:40
3	Be 313.107†	-3459.9	50.6	0.0219 ug/L	0.0219 ppb	10:49:20
3	Cd 226.502†	-141.4	-4.0	-0.0557 ug/L	-0.0557 ppb	10:49:40
3	Co 228.616†	-43.8	-1.5	-0.0398 ug/L	-0.0398 ppb	10:49:40
3	Cr 267.716†	74.4	10.9	0.1426 ug/L	0.1426 ppb	10:49:40
3	Cu 324.752†	6194.0	306.3	0.9865 ug/L	0.9865 ppb	10:49:20
3	Mn 257.610†	522.4	148.1	0.1940 ug/L	0.1940 ppb	10:49:40
3	Mo 202.031†	11.8	-1.6	-0.1395 ug/L	-0.1395 ppb	10:49:40
3	Ni 231.604†	72.2	21.3	0.6703 ug/L	0.6703 ppb	10:49:40
3	P 214.914†	177.2	7.1	5.1718 ug/L	5.1718 ppb	10:49:40
3	Pb 220.353†	-45.8	-3.3	-0.5055 ug/L	-0.5055 ppb	10:49:40
3	S 181.975 Axial†	28.9	-1.1	-2.0333 ug/L	-2.0333 ppb	10:49:40
3	Sb 206.836†	31.2	3.6	1.4924 ug/L	1.4924 ppb	10:49:40
3	Se 196.026†	-7.2	11.8	9.5692 ug/L	9.5692 ppb	10:49:40
3	Si 251.611†	557.6	121.6	4.5112 ug/L	4.5112 ppb	10:49:40
3	Sn 189.927†	4.0	-3.7	-0.8393 ug/L	-0.8393 ppb	10:49:40
3	Ti 334.940†	-903.0	30.7	0.0555 ug/L	0.0555 ppb	10:49:20
3	Tl 190.801†	-24.9	5.5	2.1229 ug/L	2.1229 ppb	10:49:40
3	U 409.014†	-2048.8	-106.1	-3.0964 ug/L	-3.0964 ppb	10:49:20
3	V 292.402†	-1219.5	-8.7	-0.0746 ug/L	-0.0746 ppb	10:49:20
3	Zn 213.857†	534.6	48.0	0.5786 ug/L	0.5786 ppb	10:49:40
3	SiO2†	565.0	103.1	8.1062 ug/L	8.1062 ppb	10:50:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	813064.5	97.403	%	0.5329				0.55%
Sc Radial	3196.2	95.4	%	1.14				1.19%
Y 371.029	695652.6	97.204	%	0.5735				0.59%
Y RADIAL	2596.4	94.65	%	0.882				0.93%
Ag 328.068†	18.1	0.0856	ug/L	0.09085	0.0856	ppb	0.09085	106.12%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.0	-15.137	ug/L	7.3320	-15.137	ppb	7.3320	48.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.4	-1.9028	ug/L	1.35945	-1.9028	ppb	1.35945	71.44%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-166.5	-4.6646	ug/L	0.49442	-4.6646	ppb	0.49442	10.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.4	0.1622	ug/L	0.08951	0.1622	ppb	0.08951	55.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-11.7	-0.0049	ug/L	0.03220	-0.0049	ppb	0.03220	653.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.0	3.7845	ug/L	8.67512	3.7845	ppb	8.67512	229.23%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -4.5     -0.0629 ug/L       0.00693     -0.0629 ppb        0.00693  11.02%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -0.0     -0.0008 ug/L       0.04427     -0.0008 ppb        0.04427 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               2.5      0.0321 ug/L       0.10400      0.0321 ppb        0.10400 324.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             313.3      1.0078 ug/L       0.10939      1.0078 ppb        0.10939  10.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.8     -22.355 ug/L       29.9994     -22.355 ppb        29.9994 134.19%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       173.4      79.394 ug/L       22.0566      79.394 ppb        22.0566  27.78%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.3      128.98 ug/L       142.840      128.98 ppb        142.840 110.75%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             121.3      0.1515 ug/L       0.03936      0.1515 ppb        0.03936  25.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.3     -0.0297 ug/L       0.55956     -0.0297 ppb        0.55956 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -40.7     -13.578 ug/L        8.0125     -13.578 ppb         8.0125  59.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              19.7      0.6211 ug/L       0.24187      0.6211 ppb        0.24187  38.94%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.1     -0.1440 ug/L       5.03512     -0.1440 ppb        5.03512 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.1     -0.7853 ug/L       0.67299     -0.7853 ppb        0.67299  85.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.2     -2.1366 ug/L       1.04500     -2.1366 ppb        1.04500  48.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.8      1.1618 ug/L       1.16800      1.1618 ppb        1.16800 100.54%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.0      0.7735 ug/L       7.68908      0.7735 ppb        7.68908 994.07%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             125.7      4.6619 ug/L       0.42201      4.6619 ppb        0.42201   9.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.7     -0.3744 ug/L       0.40264     -0.3744 ppb        0.40264 107.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -9.7     -0.0963 ug/L       0.18092     -0.0963 ppb        0.18092 187.97%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              33.3      0.0472 ug/L       0.07615      0.0472 ppb        0.07615 161.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.2207 ug/L       1.67281      0.2207 ppb        1.67281 758.12%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -44.9     -1.3099 ug/L       1.56607     -1.3099 ppb        1.56607 119.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                2.0      0.0184 ug/L       0.22741      0.0184 ppb        0.22741 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              48.7      0.5892 ug/L       0.06244      0.5892 ppb        0.06244  10.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   105.1      8.2602 ug/L       0.92590      8.2602 ppb        0.92590  11.21%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/10/2010 10:55:46 **Plasma On Time: 3/8/2010 08:27:38**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model: S10**

Sample Information File: C:\pe\Optima3\Sample Information\030910B.sif
Batch ID:
Results Data Set: 030910
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 38**
Sample ID: 1202042566|952949|1 **Date Collected: 3/10/2010 10:55:47**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202042566|952949|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3281.5	3281.5	97.9	%			10:58:00
1	Y RADIAL	2667.2	2667.2	97.23	%			10:58:00
1	Al 396.153Radial†	-55.1	3.7	8.0365	ug/L	8.0365	ppb	10:58:00
1	Ca 317.933Radial†	9.7	-0.3	-1.2408	ug/L	-1.2408	ppb	10:58:00
1	Fe 238.204 Radial†	10.1	1.7	47.468	ug/L	47.468	ppb	10:58:00
1	K 766.490 Radial†	2230.4	162.8	74.459	ug/L	74.459	ppb	10:57:40
1	Mg 279.077 IEC†	1.2	0.8	75.666	ug/L	75.666	ppb	10:58:00
1	Na 589.592 Radial†	-429.9	343.7	114.77	ug/L	114.77	ppb	10:57:40
1	Sr 421.552†	68.6	34.4	0.3407	ug/L	0.3407	ppb	10:57:40
1	Sc 361.383	810829.6	810829.6	97.135	%			10:58:56
1	Y 371.029	693126.0	693126.0	96.851	%			10:58:56
1	Ag 328.068†	125.3	-30.1	-0.1391	ug/L	-0.1391	ppb	10:58:56
1	As 188.979†	-18.6	-3.2	-1.7594	ug/L	-1.7594	ppb	10:59:16
1	B 249.677†	-311.6	-230.6	-6.4710	ug/L	-6.4710	ppb	10:59:16
1	Ba 233.527†	9.4	16.9	0.1588	ug/L	0.1588	ppb	10:59:16
1	Be 313.107†	-3615.6	-109.7	-0.0469	ug/L	-0.0469	ppb	10:58:56
1	Cd 226.502†	-147.5	-10.3	-0.1536	ug/L	-0.1536	ppb	10:59:16
1	Co 228.616†	-39.7	2.7	0.0691	ug/L	0.0691	ppb	10:59:16
1	Cr 267.716†	80.2	16.8	0.2205	ug/L	0.2205	ppb	10:59:16
1	Cu 324.752†	6149.4	260.4	0.8399	ug/L	0.8399	ppb	10:58:56
1	Mn 257.610†	475.0	99.3	0.1318	ug/L	0.1318	ppb	10:59:16
1	Mo 202.031†	11.4	-2.0	-0.1702	ug/L	-0.1702	ppb	10:59:16
1	Ni 231.604†	64.7	13.6	0.4286	ug/L	0.4286	ppb	10:59:16
1	P 214.914†	176.2	6.0	4.4736	ug/L	4.4736	ppb	10:59:16
1	Pb 220.353†	-49.3	-6.8	-1.0621	ug/L	-1.0621	ppb	10:59:16
1	S 181.975 Axial†	30.5	0.6	0.9876	ug/L	0.9876	ppb	10:59:16
1	Sb 206.836†	28.9	1.2	0.6982	ug/L	0.6982	ppb	10:59:16
1	Se 196.026†	-16.3	2.4	2.1100	ug/L	2.1100	ppb	10:59:16
1	Si 251.611†	719.2	288.0	10.680	ug/L	10.680	ppb	10:59:16
1	Sn 189.927†	61.7	55.7	12.644	ug/L	12.644	ppb	10:59:16
1	Ti 334.940†	-822.7	113.3	0.1857	ug/L	0.1857	ppb	10:58:56
1	Tl 190.801†	-30.6	-0.5	-0.1725	ug/L	-0.1725	ppb	10:59:16
1	U 409.014†	-1911.7	35.1	1.0177	ug/L	1.0177	ppb	10:58:56
1	V 292.402†	-1236.5	-26.3	-0.2113	ug/L	-0.2113	ppb	10:58:56
1	Zn 213.857†	546.5	60.1	0.7185	ug/L	0.7185	ppb	10:59:16
1	SiO2†	734.3	277.5	21.801	ug/L	21.801	ppb	11:00:27
2	Sc Radial	3273.0	3273.0	97.7	%			10:58:25
2	Y RADIAL	2663.1	2663.1	97.08	%			10:58:25
2	Al 396.153Radial†	-60.8	-2.2	-4.7177	ug/L	-4.7177	ppb	10:58:25
2	Ca 317.933Radial†	14.9	5.0	19.830	ug/L	19.830	ppb	10:58:25
2	Fe 238.204 Radial†	8.7	0.3	8.8339	ug/L	8.8339	ppb	10:58:25
2	K 766.490 Radial†	2061.9	-3.8	-1.7795	ug/L	-1.7795	ppb	10:58:05
2	Mg 279.077 IEC†	2.7	2.4	228.90	ug/L	228.90	ppb	10:58:25
2	Na 589.592 Radial†	-440.6	331.5	110.72	ug/L	110.72	ppb	10:58:05
2	Sr 421.552†	7.9	-27.6	-0.2739	ug/L	-0.2739	ppb	10:58:05
2	Sc 361.383	816354.4	816354.4	97.797	%			10:59:22
2	Y 371.029	698532.4	698532.4	97.606	%			10:59:22

2	Ag 328.068†	154.3	-1.3	-0.0058 ug/L	-0.0058 ppb	10:59:22
2	As 188.979†	-16.3	-0.7	-0.3995 ug/L	-0.3995 ppb	10:59:42
2	B 249.677†	-347.6	-265.2	-7.4351 ug/L	-7.4351 ppb	10:59:42
2	Ba 233.527†	10.7	18.1	0.1690 ug/L	0.1690 ppb	10:59:42
2	Be 313.107†	-3574.6	-42.6	-0.0176 ug/L	-0.0176 ppb	10:59:22
2	Cd 226.502†	-149.8	-11.6	-0.1673 ug/L	-0.1673 ppb	10:59:42
2	Co 228.616†	-47.8	-5.3	-0.1404 ug/L	-0.1404 ppb	10:59:42
2	Cr 267.716†	65.4	1.2	0.0149 ug/L	0.0149 ppb	10:59:42
2	Cu 324.752†	6194.0	263.1	0.8460 ug/L	0.8460 ppb	10:59:22
2	Mn 257.610†	458.8	79.4	0.0956 ug/L	0.0956 ppb	10:59:42
2	Mo 202.031†	1.8	-11.9	-1.0273 ug/L	-1.0273 ppb	10:59:42
2	Ni 231.604†	69.5	18.0	0.5675 ug/L	0.5675 ppb	10:59:42
2	P 214.914†	178.3	6.9	5.2083 ug/L	5.2083 ppb	10:59:42
2	Pb 220.353†	-39.7	3.3	0.5060 ug/L	0.5060 ppb	10:59:42
2	S 181.975 Axial†	31.3	1.2	2.0539 ug/L	2.0539 ppb	10:59:42
2	Sb 206.836†	27.6	-0.3	0.0858 ug/L	0.0858 ppb	10:59:42
2	Se 196.026†	-21.6	-2.8	-2.2931 ug/L	-2.2931 ppb	10:59:42
2	Si 251.611†	714.3	277.9	10.319 ug/L	10.319 ppb	10:59:42
2	Sn 189.927†	69.7	63.4	14.420 ug/L	14.420 ppb	10:59:42
2	Ti 334.940†	-749.4	194.0	0.3128 ug/L	0.3128 ppb	10:59:22
2	Tl 190.801†	-24.3	6.2	2.3989 ug/L	2.3989 ppb	10:59:42
2	U 409.014†	-1892.4	68.1	1.9876 ug/L	1.9876 ppb	10:59:22
2	V 292.402†	-1225.9	-6.8	-0.0611 ug/L	-0.0611 ppb	10:59:22
2	Zn 213.857†	545.5	55.3	0.6654 ug/L	0.6654 ppb	10:59:42
2	SiO2†	720.7	258.5	20.331 ug/L	20.331 ppb	11:00:47
3	Sc Radial	3246.3	3246.3	96.9 %		10:58:50
3	Y RADIAL	2646.9	2646.9	96.49 %		10:58:50
3	Al 396.153Radial†	-68.5	-10.6	-22.853 ug/L	-22.853 ppb	10:58:50
3	Ca 317.933Radial†	6.5	-3.5	-13.916 ug/L	-13.916 ppb	10:58:50
3	Fe 238.204 Radial†	8.5	0.2	4.3612 ug/L	4.3612 ppb	10:58:50
3	K 766.490 Radial†	2120.3	73.9	33.772 ug/L	33.772 ppb	10:58:30
3	Mg 279.077 IEC†	0.6	0.2	20.663 ug/L	20.663 ppb	10:58:50
3	Na 589.592 Radial†	-438.8	329.7	110.11 ug/L	110.11 ppb	10:58:30
3	Sr 421.552†	14.8	-20.4	-0.2026 ug/L	-0.2026 ppb	10:58:30
3	Sc 361.383	799611.9	799611.9	95.791 %		10:59:47
3	Y 371.029	684731.1	684731.1	95.678 %		10:59:47
3	Ag 328.068†	106.3	-48.1	-0.2396 ug/L	-0.2396 ppb	10:59:47
3	As 188.979†	-14.4	0.9	0.4990 ug/L	0.4990 ppb	11:00:07
3	B 249.677†	-335.6	-260.2	-7.2934 ug/L	-7.2934 ppb	11:00:07
3	Ba 233.527†	12.3	20.0	0.1868 ug/L	0.1868 ppb	11:00:07
3	Be 313.107†	-3580.5	-125.3	-0.0540 ug/L	-0.0540 ppb	10:59:47
3	Cd 226.502†	-157.2	-22.6	-0.3274 ug/L	-0.3274 ppb	11:00:07
3	Co 228.616†	-45.3	-3.7	-0.0960 ug/L	-0.0960 ppb	11:00:07
3	Cr 267.716†	70.2	7.6	0.0998 ug/L	0.0998 ppb	11:00:07
3	Cu 324.752†	6198.2	400.0	1.2894 ug/L	1.2894 ppb	10:59:47
3	Mn 257.610†	497.9	130.1	0.1701 ug/L	0.1701 ppb	11:00:07
3	Mo 202.031†	13.5	0.4	0.0314 ug/L	0.0314 ppb	11:00:07
3	Ni 231.604†	59.3	8.9	0.2801 ug/L	0.2801 ppb	11:00:07
3	P 214.914†	173.3	5.5	4.0165 ug/L	4.0165 ppb	11:00:07
3	Pb 220.353†	-41.0	1.1	0.1667 ug/L	0.1667 ppb	11:00:07
3	S 181.975 Axial†	29.0	-0.5	-0.9487 ug/L	-0.9487 ppb	11:00:07
3	Sb 206.836†	26.0	-1.4	-0.3569 ug/L	-0.3569 ppb	11:00:07
3	Se 196.026†	-16.9	1.5	1.2535 ug/L	1.2535 ppb	11:00:07
3	Si 251.611†	728.5	308.1	11.425 ug/L	11.425 ppb	11:00:07
3	Sn 189.927†	64.9	59.9	13.606 ug/L	13.606 ppb	11:00:07
3	Ti 334.940†	-899.0	21.8	0.0348 ug/L	0.0348 ppb	10:59:47
3	Tl 190.801†	-29.3	0.5	0.1825 ug/L	0.1825 ppb	11:00:07
3	U 409.014†	-2023.1	-108.8	-3.1780 ug/L	-3.1780 ppb	10:59:47
3	V 292.402†	-1220.2	-27.0	-0.2171 ug/L	-0.2171 ppb	10:59:47
3	Zn 213.857†	548.6	70.3	0.8484 ug/L	0.8484 ppb	11:00:07
3	SiO2†	742.3	296.4	23.282 ug/L	23.282 ppb	11:01:07

Mean Data: 1202042566|952949|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	808932.0	96.908	%	1.0220				1.05%
Sc Radial	3267.0	97.5	%	0.55				0.56%
Y 371.029	692129.8	96.711	%	0.9717				1.00%
Y RADIAL	2659.1	96.93	%	0.392				0.40%
Ag 328.068†	-26.5	-0.1281	ug/L	0.11730	-0.1281	ppb	0.11730	91.53%

Al 396.153Radial†	-3.0	-6.5116	ug/L	15.52294	-6.5116	ppb	15.52294 238.39%
As 188.979†	-1.0	-0.5533	ug/L	1.13703	-0.5533	ppb	1.13703 205.49%
B 249.677†	-252.0	-7.0665	ug/L	0.52059	-7.0665	ppb	0.52059 7.37%
Ba 233.527†	18.3	0.1715	ug/L	0.01416	0.1715	ppb	0.01416 8.25%
Be 313.107†	-92.5	-0.0395	ug/L	0.01928	-0.0395	ppb	0.01928 48.79%
Ca 317.933Radial†	0.4	1.5578	ug/L	17.04626	1.5578	ppb	17.04626 >999.9%
Cd 226.502†	-14.8	-0.2161	ug/L	0.09666	-0.2161	ppb	0.09666 44.74%
Co 228.616†	-2.1	-0.0558	ug/L	0.11040	-0.0558	ppb	0.11040 197.96%
Cr 267.716†	8.5	0.1117	ug/L	0.10331	0.1117	ppb	0.10331 92.47%
Cu 324.752†	307.8	0.9918	ug/L	0.25779	0.9918	ppb	0.25779 25.99%
Fe 238.204 Radial†	0.7	20.221	ug/L	23.7021	20.221	ppb	23.7021 117.22%
K 766.490 Radial†	77.6	35.484	ug/L	38.1481	35.484	ppb	38.1481 107.51%
Mg 279.077 IEC†	1.1	108.41	ug/L	107.914	108.41	ppb	107.914 99.54%
Mn 257.610†	103.0	0.1325	ug/L	0.03723	0.1325	ppb	0.03723 28.10%
Mo 202.031†	-4.5	-0.3887	ug/L	0.56216	-0.3887	ppb	0.56216 144.63%
Na 589.592 Radial†	335.0	111.86	ug/L	2.533	111.86	ppb	2.533 2.26%
Ni 231.604†	13.5	0.4254	ug/L	0.14375	0.4254	ppb	0.14375 33.79%
P 214.914†	6.1	4.5662	ug/L	0.60122	4.5662	ppb	0.60122 13.17%
Pb 220.353†	-0.8	-0.1298	ug/L	0.82502	-0.1298	ppb	0.82502 635.61%
S 181.975 Axial†	0.4	0.6976	ug/L	1.52218	0.6976	ppb	1.52218 218.20%
Sb 206.836†	-0.1	0.1424	ug/L	0.52980	0.1424	ppb	0.52980 372.06%
Se 196.026†	0.4	0.3568	ug/L	2.33447	0.3568	ppb	2.33447 654.29%
Si 251.611†	291.4	10.808	ug/L	0.5643	10.808	ppb	0.5643 5.22%
Sn 189.927†	59.7	13.557	ug/L	0.8892	13.557	ppb	0.8892 6.56%
Sr 421.552†	-4.6	-0.0452	ug/L	0.33614	-0.0452	ppb	0.33614 742.86%
Ti 334.940†	109.7	0.1778	ug/L	0.13920	0.1778	ppb	0.13920 78.30%
Tl 190.801†	2.1	0.8030	ug/L	1.39349	0.8030	ppb	1.39349 173.54%
U 409.014†	-1.9	-0.0576	ug/L	2.74554	-0.0576	ppb	2.74554 >999.9%
V 292.402†	-20.0	-0.1631	ug/L	0.08845	-0.1631	ppb	0.08845 54.22%
Zn 213.857†	61.9	0.7441	ug/L	0.09414	0.7441	ppb	0.09414 12.65%
SiO2†	277.4	21.805	ug/L	1.4756	21.805	ppb	1.4756 6.77%

Sequence No.: 2
Sample ID: 1202042567|952949|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 3/10/2010 11:03:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042567|952949|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3211.6	3211.6	95.9	%			11:05:31
1	Y RADIAL	2600.0	2600.0	94.78	%			11:05:31
1	Al 396.153Radial†	2277.7	2436.1	5211.4	ug/L	5211.4	ppb	11:05:11
1	Ca 317.933Radial†	1320.1	1366.9	5424.7	ug/L	5424.7	ppb	11:05:31
1	Fe 238.204 Radial†	195.7	195.5	5448.5	ug/L	5448.5	ppb	11:05:31
1	K 766.490 Radial†	12930.0	11374.3	5202.2	ug/L	5202.2	ppb	11:05:11
1	Mg 279.077 IEC†	55.4	57.3	5564.5	ug/L	5564.5	ppb	11:05:31
1	Na 589.592 Radial†	13919.4	15303.5	5110.7	ug/L	5110.7	ppb	11:05:11
1	Sr 421.552†	51151.2	53325.8	528.74	ug/L	528.74	ppb	11:05:11
1	Sc 361.383	861175.5	861175.5	103.17	%			11:06:28
1	Y 371.029	728509.8	728509.8	101.79	%			11:06:28
1	Ag 328.068†	99672.9	96454.8	490.56	ug/L	490.56	ppb	11:06:33
1	As 188.979†	908.6	896.7	502.85	ug/L	502.85	ppb	11:06:53
1	B 249.677†	17888.5	17429.7	486.29	ug/L	486.29	ppb	11:06:33
1	Ba 233.527†	55862.6	54155.3	507.07	ug/L	507.07	ppb	11:06:33
1	Be 313.107†	1196684.5	1163569.3	503.29	ug/L	503.29	ppb	11:06:28
1	Cd 226.502†	35112.4	34176.3	493.90	ug/L	493.90	ppb	11:06:33
1	Co 228.616†	19815.4	19250.8	499.31	ug/L	499.31	ppb	11:06:33
1	Cr 267.716†	40121.2	38824.1	507.14	ug/L	507.14	ppb	11:06:33
1	Cu 324.752†	170275.8	158979.4	511.62	ug/L	511.62	ppb	11:06:33
1	Mn 257.610†	402995.1	390237.0	511.68	ug/L	511.68	ppb	11:06:28
1	Mo 202.031†	5981.9	5784.5	499.77	ug/L	499.77	ppb	11:06:53
1	Ni 231.604†	17022.0	16446.5	518.08	ug/L	518.08	ppb	11:06:33
1	P 214.914†	964.0	759.0	476.60	ug/L	476.60	ppb	11:06:53
1	Pb 220.353†	3255.6	3199.6	496.85	ug/L	496.85	ppb	11:06:53
1	S 181.975 Axial†	2952.4	2831.0	5048.4	ug/L	5048.4	ppb	11:06:53
1	Sb 206.836†	1349.4	1279.5	548.39	ug/L	548.39	ppb	11:06:53
1	Se 196.026†	634.4	634.2	533.97	ug/L	533.97	ppb	11:06:53
1	Si 251.611†	139729.1	134988.3	4999.0	ug/L	4999.0	ppb	11:06:33
1	Sn 189.927†	2337.5	2257.9	513.73	ug/L	513.73	ppb	11:06:53
1	Ti 334.940†	301037.9	292758.9	497.43	ug/L	497.43	ppb	11:06:33
1	Tl 190.801†	1334.6	1324.7	517.25	ug/L	517.25	ppb	11:06:53
1	U 409.014†	16859.4	18345.2	533.97	ug/L	533.97	ppb	11:06:33
1	V 292.402†	66110.5	65328.2	516.65	ug/L	516.65	ppb	11:06:33
1	Zn 213.857†	43557.3	41718.0	501.38	ug/L	501.38	ppb	11:06:33
1	SiO2†	141526.5	136704.4	10725	ug/L	10725	ppb	11:08:01
2	Sc Radial	3307.9	3307.9	98.7	%			11:05:56
2	Y RADIAL	2675.0	2675.0	97.51	%			11:05:56
2	Al 396.153Radial†	2335.1	2425.2	5187.6	ug/L	5187.6	ppb	11:05:36
2	Ca 317.933Radial†	1284.1	1290.4	5121.2	ug/L	5121.2	ppb	11:05:56
2	Fe 238.204 Radial†	187.3	181.1	5049.0	ug/L	5049.0	ppb	11:05:56
2	K 766.490 Radial†	13105.1	11159.2	5103.8	ug/L	5103.8	ppb	11:05:36
2	Mg 279.077 IEC†	53.4	53.7	5206.9	ug/L	5206.9	ppb	11:05:56
2	Na 589.592 Radial†	14383.5	15351.1	5126.6	ug/L	5126.6	ppb	11:05:36
2	Sr 421.552†	52898.7	53543.4	530.90	ug/L	530.90	ppb	11:05:36
2	Sc 361.383	850656.2	850656.2	101.91	%			11:06:59
2	Y 371.029	719380.1	719380.1	100.52	%			11:06:59
2	Ag 328.068†	99290.7	97274.4	494.59	ug/L	494.59	ppb	11:07:04
2	As 188.979†	897.5	896.7	502.78	ug/L	502.78	ppb	11:07:24
2	B 249.677†	17896.3	17651.8	492.56	ug/L	492.56	ppb	11:07:04
2	Ba 233.527†	55597.3	54564.5	510.89	ug/L	510.89	ppb	11:07:04
2	Be 313.107†	1184641.3	1166095.5	504.39	ug/L	504.39	ppb	11:06:59
2	Cd 226.502†	34930.9	34419.1	497.46	ug/L	497.46	ppb	11:07:04
2	Co 228.616†	19767.3	19441.1	504.26	ug/L	504.26	ppb	11:07:04
2	Cr 267.716†	40025.3	39210.9	512.17	ug/L	512.17	ppb	11:07:04
2	Cu 324.752†	169468.0	160227.7	515.61	ug/L	515.61	ppb	11:07:04
2	Mn 257.610†	400211.7	392336.2	514.41	ug/L	514.41	ppb	11:06:59
2	Mo 202.031†	5964.4	5839.1	504.44	ug/L	504.44	ppb	11:07:24
2	Ni 231.604†	16964.1	16593.8	522.72	ug/L	522.72	ppb	11:07:04

2	P 214.914†	957.3	764.0	479.98 ug/L	479.98 ppb	11:07:24
2	Pb 220.353†	3276.1	3258.8	506.07 ug/L	506.07 ppb	11:07:24
2	S 181.975 Axial†	2942.3	2856.4	5093.7 ug/L	5093.7 ppb	11:07:24
2	Sb 206.836†	1353.0	1299.2	556.73 ug/L	556.73 ppb	11:07:24
2	Se 196.026†	628.8	636.2	534.56 ug/L	534.56 ppb	11:07:24
2	Si 251.611†	139162.7	136107.3	5040.4 ug/L	5040.4 ppb	11:07:04
2	Sn 189.927†	2333.1	2281.6	519.08 ug/L	519.08 ppb	11:07:24
2	Ti 334.940†	300004.7	295353.5	501.82 ug/L	501.82 ppb	11:07:04
2	Tl 190.801†	1326.6	1332.8	520.44 ug/L	520.44 ppb	11:07:24
2	U 409.014†	16995.6	18680.9	543.81 ug/L	543.81 ppb	11:07:04
2	V 292.402†	65877.0	65891.6	521.18 ug/L	521.18 ppb	11:07:04
2	Zn 213.857†	43347.7	42034.5	505.24 ug/L	505.24 ppb	11:07:04
2	SiO2†	141651.5	138523.5	10868 ug/L	10868 ppb	11:08:06
3	Sc Radial	3360.3	3360.3	100 %		11:06:21
3	Y RADIAL	2712.7	2712.7	98.88 %		11:06:21
3	Al 396.153Radial†	2292.5	2345.8	5016.9 ug/L	5016.9 ppb	11:06:01
3	Ca 317.933Radial†	1298.2	1284.1	5096.3 ug/L	5096.3 ppb	11:06:21
3	Fe 238.204 Radial†	190.9	181.7	5064.6 ug/L	5064.6 ppb	11:06:21
3	K 766.490 Radial†	13044.7	10892.0	4981.6 ug/L	4981.6 ppb	11:06:01
3	Mg 279.077 IEC†	55.0	54.4	5277.6 ug/L	5277.6 ppb	11:06:21
3	Na 589.592 Radial†	13944.3	14686.0	4904.5 ug/L	4904.5 ppb	11:06:01
3	Sr 421.552†	51571.0	51384.0	509.49 ug/L	509.49 ppb	11:06:01
3	Sc 361.383	850604.7	850604.7	101.90 %		11:07:30
3	Y 371.029	719476.0	719476.0	100.53 %		11:07:30
3	Ag 328.068†	99177.2	97168.9	494.06 ug/L	494.06 ppb	11:07:35
3	As 188.979†	902.6	901.7	505.59 ug/L	505.59 ppb	11:07:55
3	B 249.677†	17877.0	17633.9	492.06 ug/L	492.06 ppb	11:07:35
3	Ba 233.527†	55694.8	54663.5	511.81 ug/L	511.81 ppb	11:07:35
3	Be 313.107†	1180967.4	1162560.5	502.86 ug/L	502.86 ppb	11:07:30
3	Cd 226.502†	35067.7	34555.5	499.43 ug/L	499.43 ppb	11:07:35
3	Co 228.616†	19787.1	19461.7	504.79 ug/L	504.79 ppb	11:07:35
3	Cr 267.716†	40029.7	39217.6	512.26 ug/L	512.26 ppb	11:07:35
3	Cu 324.752†	169286.9	160060.0	515.07 ug/L	515.07 ppb	11:07:35
3	Mn 257.610†	399290.3	391455.8	513.25 ug/L	513.25 ppb	11:07:30
3	Mo 202.031†	5980.8	5855.5	505.86 ug/L	505.86 ppb	11:07:55
3	Ni 231.604†	16948.2	16579.2	522.25 ug/L	522.25 ppb	11:07:35
3	P 214.914†	966.7	773.2	487.05 ug/L	487.05 ppb	11:07:55
3	Pb 220.353†	3259.0	3242.2	503.46 ug/L	503.46 ppb	11:07:55
3	S 181.975 Axial†	2936.4	2850.8	5083.9 ug/L	5083.9 ppb	11:07:55
3	Sb 206.836†	1349.6	1296.0	555.48 ug/L	555.48 ppb	11:07:55
3	Se 196.026†	622.5	630.1	529.54 ug/L	529.54 ppb	11:07:55
3	Si 251.611†	139072.7	136027.3	5037.4 ug/L	5037.4 ppb	11:07:35
3	Sn 189.927†	2344.2	2292.6	521.58 ug/L	521.58 ppb	11:07:55
3	Ti 334.940†	300383.4	295743.0	502.48 ug/L	502.48 ppb	11:07:35
3	Tl 190.801†	1313.0	1319.6	515.31 ug/L	515.31 ppb	11:07:55
3	U 409.014†	16918.1	18605.8	541.61 ug/L	541.61 ppb	11:07:35
3	V 292.402†	65885.5	65903.8	521.29 ug/L	521.29 ppb	11:07:35
3	Zn 213.857†	43404.0	42092.3	505.94 ug/L	505.94 ppb	11:07:35
3	SiO2†	140477.5	137379.8	10778 ug/L	10778 ppb	11:08:11

Mean Data: 1202042567|952949|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	854145.4	102.32	%	0.729				0.71%
Sc Radial	3293.3	98.3	%	2.25				2.29%
Y 371.029	722455.3	100.95	%	0.733				0.73%
Y RADIAL	2662.5	97.06	%	2.091				2.15%
Ag 328.068†	96966.0	493.07	ug/L	2.192	493.07	ppb	2.192	0.44%
Al 396.153Radial†	2402.3	5138.6	ug/L	106.10	5138.6	ppb	106.10	2.06%
As 188.979†	898.3	503.74	ug/L	1.603	503.74	ppb	1.603	0.32%
B 249.677†	17571.8	490.30	ug/L	3.487	490.30	ppb	3.487	0.71%
Ba 233.527†	54461.1	509.92	ug/L	2.515	509.92	ppb	2.515	0.49%
Be 313.107†	1164075.1	503.51	ug/L	0.787	503.51	ppb	0.787	0.16%
Ca 317.933Radial†	1313.8	5214.0	ug/L	182.86	5214.0	ppb	182.86	3.51%
Cd 226.502†	34383.6	496.93	ug/L	2.800	496.93	ppb	2.800	0.56%
Co 228.616†	19384.5	502.79	ug/L	3.021	502.79	ppb	3.021	0.60%
Cr 267.716†	39084.2	510.53	ug/L	2.931	510.53	ppb	2.931	0.57%
Cu 324.752†	159755.7	514.10	ug/L	2.166	514.10	ppb	2.166	0.42%
Fe 238.204 Radial†	186.1	5187.4	ug/L	226.30	5187.4	ppb	226.30	4.36%
K 766.490 Radial†	11141.8	5095.9	ug/L	110.51	5095.9	ppb	110.51	2.17%

Mg 279.077 IEC†	55.1	5349.7 ug/L	189.34	5349.7 ppb	189.34	3.54%
Mn 257.610†	391343.0	513.12 ug/L	1.368	513.12 ppb	1.368	0.27%
Mo 202.031†	5826.4	503.36 ug/L	3.191	503.36 ppb	3.191	0.63%
Na 589.592 Radial†	15113.5	5047.3 ug/L	123.92	5047.3 ppb	123.92	2.46%
Ni 231.604†	16539.8	521.02 ug/L	2.555	521.02 ppb	2.555	0.49%
P 214.914†	765.4	481.21 ug/L	5.333	481.21 ppb	5.333	1.11%
Pb 220.353†	3233.5	502.13 ug/L	4.756	502.13 ppb	4.756	0.95%
S 181.975 Axial†	2846.1	5075.3 ug/L	23.83	5075.3 ppb	23.83	0.47%
Sb 206.836†	1291.6	553.53 ug/L	4.494	553.53 ppb	4.494	0.81%
Se 196.026†	633.5	532.69 ug/L	2.742	532.69 ppb	2.742	0.51%
Si 251.611†	135707.6	5025.6 ug/L	23.11	5025.6 ppb	23.11	0.46%
Sn 189.927†	2277.4	518.13 ug/L	4.013	518.13 ppb	4.013	0.77%
Sr 421.552†	52751.1	523.04 ug/L	11.789	523.04 ppb	11.789	2.25%
Ti 334.940†	294618.5	500.58 ug/L	2.744	500.58 ppb	2.744	0.55%
Tl 190.801†	1325.7	517.67 ug/L	2.591	517.67 ppb	2.591	0.50%
U 409.014†	18543.9	539.80 ug/L	5.164	539.80 ppb	5.164	0.96%
V 292.402†	65707.9	519.70 ug/L	2.646	519.70 ppb	2.646	0.51%
Zn 213.857†	41948.3	504.19 ug/L	2.459	504.19 ppb	2.459	0.49%
SiO2†	137535.9	10790 ug/L	72.2	10790 ppb	72.2	0.67%

Sequence No.: 3
Sample ID: 246838001|952949|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 3/10/2010 11:10:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246838001|952949|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3280.1	3280.1	97.9	%			11:12:35
1	Y RADIAL	2664.6	2664.6	97.13	%			11:12:35
1	Al 396.153Radial†	-22.6	37.0	79.506	ug/L	79.506	ppb	11:12:35
1	Ca 317.933Radial†	25.0	15.3	60.690	ug/L	60.690	ppb	11:12:35
1	Fe 238.204 Radial†	10.3	1.9	52.530	ug/L	52.530	ppb	11:12:35
1	K 766.490 Radial†	2411.3	348.6	159.45	ug/L	159.45	ppb	11:12:15
1	Mg 279.077 IEC†	-2.1	-2.6	-252.55	ug/L	-252.55	ppb	11:12:35
1	Na 589.592 Radial†	-39.6	742.1	247.83	ug/L	247.83	ppb	11:12:15
1	Sr 421.552†	105.3	71.9	0.7125	ug/L	0.7125	ppb	11:12:15
1	Sc 361.383	826089.3	826089.3	98.963	%			11:13:32
1	Y 371.029	706334.2	706334.2	98.696	%			11:13:32
1	Ag 328.068†	86.1	-72.1	-0.3470	ug/L	-0.3470	ppb	11:13:32
1	As 188.979†	-17.4	-1.6	-0.8883	ug/L	-0.8883	ppb	11:13:52
1	B 249.677†	676.1	773.4	21.673	ug/L	21.673	ppb	11:13:52
1	Ba 233.527†	86.0	94.1	0.8817	ug/L	0.8817	ppb	11:13:52
1	Be 313.107†	-3606.7	-32.0	-0.0101	ug/L	-0.0101	ppb	11:13:32
1	Cd 226.502†	-136.8	3.3	0.0431	ug/L	0.0431	ppb	11:13:52
1	Co 228.616†	-49.1	-6.1	-0.1633	ug/L	-0.1633	ppb	11:13:52
1	Cr 267.716†	121.5	57.1	0.7471	ug/L	0.7471	ppb	11:13:52
1	Cu 324.752†	7315.0	1321.1	4.2543	ug/L	4.2543	ppb	11:13:32
1	Mn 257.610†	1725.9	1354.3	1.7902	ug/L	1.7902	ppb	11:13:52
1	Mo 202.031†	5.0	-8.7	-0.7483	ug/L	-0.7483	ppb	11:13:52
1	Ni 231.604†	71.4	19.1	0.6021	ug/L	0.6021	ppb	11:13:52
1	P 214.914†	181.8	8.3	5.4225	ug/L	5.4225	ppb	11:13:52
1	Pb 220.353†	-53.9	-10.6	-1.6288	ug/L	-1.6288	ppb	11:13:52
1	S 181.975 Axial†	37.5	7.1	12.598	ug/L	12.598	ppb	11:13:52
1	Sb 206.836†	25.6	-2.6	-1.1032	ug/L	-1.1032	ppb	11:13:52
1	Se 196.026†	-11.5	7.6	6.3569	ug/L	6.3569	ppb	11:13:52
1	Si 251.611†	47649.7	47696.5	1768.5	ug/L	1768.5	ppb	11:13:32
1	Sn 189.927†	6.0	-1.7	-0.3873	ug/L	-0.3873	ppb	11:13:52
1	Ti 334.940†	11.3	971.6	1.6798	ug/L	1.6798	ppb	11:13:32
1	Tl 190.801†	-22.5	8.3	3.2477	ug/L	3.2477	ppb	11:13:52
1	U 409.014†	-1973.3	9.2	0.2596	ug/L	0.2596	ppb	11:13:32
1	V 292.402†	-1170.4	64.1	0.4757	ug/L	0.4757	ppb	11:13:32
1	Zn 213.857†	815.3	321.4	3.8819	ug/L	3.8819	ppb	11:13:52
1	SiO2†	47958.4	47982.5	3769.2	ug/L	3769.2	ppb	11:14:48
2	Sc Radial	3304.5	3304.5	98.6	%			11:13:00
2	Y RADIAL	2681.4	2681.4	97.74	%			11:13:00
2	Al 396.153Radial†	-24.4	35.3	75.870	ug/L	75.870	ppb	11:13:00
2	Ca 317.933Radial†	31.3	21.5	85.248	ug/L	85.248	ppb	11:13:00
2	Fe 238.204 Radial†	9.5	1.0	28.809	ug/L	28.809	ppb	11:13:00
2	K 766.490 Radial†	2602.9	524.6	240.03	ug/L	240.03	ppb	11:12:40
2	Mg 279.077 IEC†	-0.2	-0.6	-59.544	ug/L	-59.544	ppb	11:13:00
2	Na 589.592 Radial†	-94.6	686.7	229.32	ug/L	229.32	ppb	11:12:40
2	Sr 421.552†	75.9	41.2	0.4084	ug/L	0.4084	ppb	11:12:40
2	Sc 361.383	837743.7	837743.7	100.36	%			11:13:57
2	Y 371.029	715917.3	715917.3	100.04	%			11:13:57
2	Ag 328.068†	219.1	59.2	0.3046	ug/L	0.3046	ppb	11:13:57
2	As 188.979†	-18.1	-2.0	-1.1152	ug/L	-1.1152	ppb	11:14:17
2	B 249.677†	722.9	810.5	22.715	ug/L	22.715	ppb	11:14:17
2	Ba 233.527†	91.4	98.2	0.9204	ug/L	0.9204	ppb	11:14:17
2	Be 313.107†	-3673.4	-47.7	-0.0165	ug/L	-0.0165	ppb	11:13:57
2	Cd 226.502†	-149.2	-7.1	-0.1039	ug/L	-0.1039	ppb	11:14:17
2	Co 228.616†	-33.9	9.8	0.2489	ug/L	0.2489	ppb	11:14:17
2	Cr 267.716†	135.7	69.5	0.9063	ug/L	0.9063	ppb	11:14:17
2	Cu 324.752†	7415.4	1318.4	4.2404	ug/L	4.2404	ppb	11:13:57
2	Mn 257.610†	1756.2	1360.2	1.7877	ug/L	1.7877	ppb	11:14:17
2	Mo 202.031†	14.2	0.4	0.0371	ug/L	0.0371	ppb	11:14:17
2	Ni 231.604†	71.2	17.9	0.5651	ug/L	0.5651	ppb	11:14:17

2	P 214.914†	188.3	12.2	8.4500	ug/L	8.4500	ppb	11:14:17
2	Pb 220.353†	-44.2	-0.1	-0.0065	ug/L	-0.0065	ppb	11:14:17
2	S 181.975 Axial†	43.9	12.9	23.004	ug/L	23.004	ppb	11:14:17
2	Sb 206.836†	21.9	-6.7	-2.7627	ug/L	-2.7627	ppb	11:14:17
2	Se 196.026†	-16.9	2.4	2.0641	ug/L	2.0641	ppb	11:14:17
2	Si 251.611†	48562.7	47936.4	1777.4	ug/L	1777.4	ppb	11:13:57
2	Sn 189.927†	9.2	1.3	0.3074	ug/L	0.3074	ppb	11:14:17
2	Ti 334.940†	110.1	1069.9	1.8312	ug/L	1.8312	ppb	11:13:57
2	Tl 190.801†	-25.9	5.3	2.0579	ug/L	2.0579	ppb	11:14:17
2	U 409.014†	-1758.1	251.4	7.3349	ug/L	7.3349	ppb	11:13:57
2	V 292.402†	-1134.6	116.2	0.9144	ug/L	0.9144	ppb	11:13:57
2	Zn 213.857†	818.0	312.7	3.7799	ug/L	3.7799	ppb	11:14:17
2	SiO2†	47893.4	47243.5	3711.2	ug/L	3711.2	ppb	11:14:53
3	Sc Radial	3318.8	3318.8	99.1	%			11:13:25
3	Y RADIAL	2709.2	2709.2	98.76	%			11:13:25
3	Al 396.153Radial†	-26.8	33.0	70.933	ug/L	70.933	ppb	11:13:25
3	Ca 317.933Radial†	26.8	16.8	66.790	ug/L	66.790	ppb	11:13:25
3	Fe 238.204 Radial†	11.0	2.5	68.293	ug/L	68.293	ppb	11:13:25
3	K 766.490 Radial†	2545.1	454.9	208.14	ug/L	208.14	ppb	11:13:05
3	Mg 279.077 IEC†	1.3	0.8	79.964	ug/L	79.964	ppb	11:13:25
3	Na 589.592 Radial†	-100.0	681.6	227.63	ug/L	227.63	ppb	11:13:05
3	Sr 421.552†	57.4	22.2	0.2200	ug/L	0.2200	ppb	11:13:05
3	Sc 361.383	820441.8	820441.8	98.287	%			11:14:22
3	Y 371.029	700625.6	700625.6	97.899	%			11:14:22
3	Ag 328.068†	60.5	-97.5	-0.4729	ug/L	-0.4729	ppb	11:14:22
3	As 188.979†	-19.0	-3.4	-1.8434	ug/L	-1.8434	ppb	11:14:42
3	B 249.677†	693.5	795.8	22.296	ug/L	22.296	ppb	11:14:42
3	Ba 233.527†	98.9	107.8	1.0095	ug/L	1.0095	ppb	11:14:42
3	Be 313.107†	-3617.1	-67.6	-0.0252	ug/L	-0.0252	ppb	11:14:22
3	Cd 226.502†	-150.6	-11.7	-0.1747	ug/L	-0.1747	ppb	11:14:42
3	Co 228.616†	-35.9	7.1	0.1774	ug/L	0.1774	ppb	11:14:42
3	Cr 267.716†	160.1	97.2	1.2702	ug/L	1.2702	ppb	11:14:42
3	Cu 324.752†	7193.3	1248.3	4.0196	ug/L	4.0196	ppb	11:14:22
3	Mn 257.610†	1721.8	1362.1	1.7884	ug/L	1.7884	ppb	11:14:42
3	Mo 202.031†	6.4	-7.3	-0.6215	ug/L	-0.6215	ppb	11:14:42
3	Ni 231.604†	72.3	20.5	0.6473	ug/L	0.6473	ppb	11:14:42
3	P 214.914†	171.6	-0.8	-1.4865	ug/L	-1.4865	ppb	11:14:42
3	Pb 220.353†	-46.3	-3.2	-0.4890	ug/L	-0.4890	ppb	11:14:42
3	S 181.975 Axial†	43.6	13.5	24.087	ug/L	24.087	ppb	11:14:42
3	Sb 206.836†	19.4	-8.8	-3.6807	ug/L	-3.6807	ppb	11:14:42
3	Se 196.026†	-13.6	5.4	4.6266	ug/L	4.6266	ppb	11:14:42
3	Si 251.611†	47404.1	47778.1	1771.5	ug/L	1771.5	ppb	11:14:22
3	Sn 189.927†	-1.6	-9.4	-2.1305	ug/L	-2.1305	ppb	11:14:42
3	Ti 334.940†	77.3	1038.9	1.7668	ug/L	1.7668	ppb	11:14:22
3	Tl 190.801†	-16.7	14.1	5.4743	ug/L	5.4743	ppb	11:14:42
3	U 409.014†	-1901.8	68.2	1.9824	ug/L	1.9824	ppb	11:14:22
3	V 292.402†	-1189.9	36.1	0.2658	ug/L	0.2658	ppb	11:14:22
3	Zn 213.857†	814.0	325.7	3.9320	ug/L	3.9320	ppb	11:14:42
3	SiO2†	47718.9	48072.4	3776.3	ug/L	3776.3	ppb	11:14:58

Mean Data: 246838001|952949|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828091.6	99.203	%	1.0570				1.07%
Sc Radial	3301.1	98.5	%	0.58				0.59%
Y 371.029	707625.7	98.877	%	1.0797				1.09%
Y RADIAL	2685.1	97.88	%	0.823				0.84%
Ag 328.068†	-36.8	-0.1718	ug/L	0.41733	-0.1718	ppb	0.41733	242.93%
Al 396.153Radial†	35.1	75.436	ug/L	4.3031	75.436	ppb	4.3031	5.70%
As 188.979†	-2.4	-1.2823	ug/L	0.49900	-1.2823	ppb	0.49900	38.91%
B 249.677†	793.2	22.228	ug/L	0.5245	22.228	ppb	0.5245	2.36%
Ba 233.527†	100.1	0.9372	ug/L	0.06554	0.9372	ppb	0.06554	6.99%
Be 313.107†	-49.1	-0.0172	ug/L	0.00758	-0.0172	ppb	0.00758	44.00%
Ca 317.933Radial†	17.9	70.910	ug/L	12.7869	70.910	ppb	12.7869	18.03%
Cd 226.502†	-5.1	-0.0785	ug/L	0.11110	-0.0785	ppb	0.11110	141.47%
Co 228.616†	3.6	0.0877	ug/L	0.22030	0.0877	ppb	0.22030	251.31%
Cr 267.716†	74.6	0.9745	ug/L	0.26810	0.9745	ppb	0.26810	27.51%
Cu 324.752†	1295.9	4.1714	ug/L	0.13167	4.1714	ppb	0.13167	3.16%
Fe 238.204 Radial†	1.8	49.877	ug/L	19.8753	49.877	ppb	19.8753	39.85%
K 766.490 Radial†	442.7	202.54	ug/L	40.584	202.54	ppb	40.584	20.04%

Mg 279.077 IEC†	-0.8	-77.375	ug/L	166.9707	-77.375	ppb	166.9707 215.79%
Mn 257.610†	1358.9	1.7888	ug/L	0.00127	1.7888	ppb	0.00127 0.07%
Mo 202.031†	-5.2	-0.4442	ug/L	0.42167	-0.4442	ppb	0.42167 94.92%
Na 589.592 Radial†	703.5	234.93	ug/L	11.209	234.93	ppb	11.209 4.77%
Ni 231.604†	19.2	0.6048	ug/L	0.04115	0.6048	ppb	0.04115 6.80%
P 214.914†	6.6	4.1286	ug/L	5.09307	4.1286	ppb	5.09307 123.36%
Pb 220.353†	-4.6	-0.7081	ug/L	0.83308	-0.7081	ppb	0.83308 117.65%
S 181.975 Axial†	11.2	19.896	ug/L	6.3438	19.896	ppb	6.3438 31.88%
Sb 206.836†	-6.0	-2.5155	ug/L	1.30639	-2.5155	ppb	1.30639 51.93%
Se 196.026†	5.2	4.3492	ug/L	2.15981	4.3492	ppb	2.15981 49.66%
Si 251.611†	47803.7	1772.5	ug/L	4.52	1772.5	ppb	4.52 0.25%
Sn 189.927†	-3.3	-0.7368	ug/L	1.25600	-0.7368	ppb	1.25600 170.46%
Sr 421.552†	45.1	0.4469	ug/L	0.24849	0.4469	ppb	0.24849 55.60%
Ti 334.940†	1026.8	1.7593	ug/L	0.07601	1.7593	ppb	0.07601 4.32%
Tl 190.801†	9.2	3.5933	ug/L	1.73427	3.5933	ppb	1.73427 48.26%
U 409.014†	109.6	3.1923	ug/L	3.68956	3.1923	ppb	3.68956 115.58%
V 292.402†	72.1	0.5520	ug/L	0.33093	0.5520	ppb	0.33093 59.96%
Zn 213.857†	319.9	3.8646	ug/L	0.07748	3.8646	ppb	0.07748 2.00%
SiO2†	47766.1	3752.2	ug/L	35.74	3752.2	ppb	35.74 0.95%

Sequence No.: 6
Sample ID: 1202042568|952949|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 3/10/2010 11:31:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042568|952949|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3251.8	3251.8	97.1	%			11:33:40
1	Y RADIAL	2642.8	2642.8	96.34	%			11:33:40
1	Al 396.153Radial†	-49.1	9.4	20.268	ug/L	20.268	ppb	11:33:40
1	Ca 317.933Radial†	15.0	5.2	20.718	ug/L	20.718	ppb	11:33:40
1	Fe 238.204 Radial†	9.4	1.1	29.660	ug/L	29.660	ppb	11:33:40
1	K 766.490 Radial†	2103.5	52.9	24.178	ug/L	24.178	ppb	11:33:20
1	Mg 279.077 IEC†	0.2	-0.2	-19.379	ug/L	-19.379	ppb	11:33:40
1	Na 589.592 Radial†	-669.3	93.0	31.052	ug/L	31.052	ppb	11:33:20
1	Sr 421.552†	68.1	34.5	0.3415	ug/L	0.3415	ppb	11:33:20
1	Sc 361.383	814085.8	814085.8	97.525	%			11:34:37
1	Y 371.029	695579.5	695579.5	97.194	%			11:34:37
1	Ag 328.068†	118.6	-37.4	-0.1753	ug/L	-0.1753	ppb	11:34:37
1	As 188.979†	-21.9	-6.5	-3.5753	ug/L	-3.5753	ppb	11:34:57
1	B 249.677†	-356.8	-275.6	-7.7305	ug/L	-7.7305	ppb	11:34:57
1	Ba 233.527†	26.8	34.6	0.3247	ug/L	0.3247	ppb	11:34:57
1	Be 313.107†	-3621.0	-100.3	-0.0417	ug/L	-0.0417	ppb	11:34:37
1	Cd 226.502†	-154.3	-16.6	-0.2445	ug/L	-0.2445	ppb	11:34:57
1	Co 228.616†	-51.8	-9.6	-0.2525	ug/L	-0.2525	ppb	11:34:57
1	Cr 267.716†	54.5	-9.8	-0.1245	ug/L	-0.1245	ppb	11:34:57
1	Cu 324.752†	6236.0	323.8	1.0469	ug/L	1.0469	ppb	11:34:37
1	Mn 257.610†	725.1	353.8	0.4673	ug/L	0.4673	ppb	11:34:57
1	Mo 202.031†	4.0	-9.7	-0.8306	ug/L	-0.8306	ppb	11:34:57
1	Ni 231.604†	61.8	10.4	0.3271	ug/L	0.3271	ppb	11:34:57
1	P 214.914†	186.9	16.3	12.143	ug/L	12.143	ppb	11:34:57
1	Pb 220.353†	-45.7	-2.9	-0.4527	ug/L	-0.4527	ppb	11:34:57
1	S 181.975 Axial†	28.6	-1.6	-2.7698	ug/L	-2.7698	ppb	11:34:57
1	Sb 206.836†	27.4	-0.4	-0.1760	ug/L	-0.1760	ppb	11:34:57
1	Se 196.026†	-16.7	2.1	1.7859	ug/L	1.7859	ppb	11:34:57
1	Si 251.611†	758.3	325.2	12.066	ug/L	12.066	ppb	11:34:57
1	Sn 189.927†	11.4	3.9	0.8842	ug/L	0.8842	ppb	11:34:57
1	Ti 334.940†	-531.3	415.5	0.7131	ug/L	0.7131	ppb	11:34:37
1	Tl 190.801†	-27.4	2.9	1.1455	ug/L	1.1455	ppb	11:34:57
1	U 409.014†	-2141.3	-192.5	-5.6235	ug/L	-5.6235	ppb	11:34:37
1	V 292.402†	-1202.9	13.4	0.0764	ug/L	0.0764	ppb	11:34:37
1	Zn 213.857†	542.2	53.5	0.6413	ug/L	0.6413	ppb	11:34:57
1	SiO2†	764.9	305.9	24.049	ug/L	24.049	ppb	11:36:08
2	Sc Radial	3227.8	3227.8	96.3	%			11:34:05
2	Y RADIAL	2626.3	2626.3	95.74	%			11:34:05
2	Al 396.153Radial†	-48.1	10.1	21.645	ug/L	21.645	ppb	11:34:05
2	Ca 317.933Radial†	13.5	3.8	15.080	ug/L	15.080	ppb	11:34:05
2	Fe 238.204 Radial†	7.8	-0.6	-15.563	ug/L	-15.563	ppb	11:34:05
2	K 766.490 Radial†	1995.9	-42.7	-19.549	ug/L	-19.549	ppb	11:33:45
2	Mg 279.077 IEC†	0.8	0.4	39.602	ug/L	39.602	ppb	11:34:05
2	Na 589.592 Radial†	-770.9	-17.6	-5.8625	ug/L	-5.8625	ppb	11:33:45
2	Sr 421.552†	37.6	3.4	0.0336	ug/L	0.0336	ppb	11:33:45
2	Sc 361.383	810001.5	810001.5	97.036	%			11:35:02
2	Y 371.029	692380.0	692380.0	96.746	%			11:35:02
2	Ag 328.068†	109.1	-46.6	-0.2407	ug/L	-0.2407	ppb	11:35:02
2	As 188.979†	-19.1	-3.7	-2.0743	ug/L	-2.0743	ppb	11:35:22
2	B 249.677†	-379.8	-301.2	-8.4401	ug/L	-8.4401	ppb	11:35:22
2	Ba 233.527†	25.3	33.2	0.3100	ug/L	0.3100	ppb	11:35:22
2	Be 313.107†	-3656.0	-155.1	-0.0652	ug/L	-0.0652	ppb	11:35:02
2	Cd 226.502†	-148.7	-11.6	-0.1665	ug/L	-0.1665	ppb	11:35:22
2	Co 228.616†	-43.6	-1.4	-0.0352	ug/L	-0.0352	ppb	11:35:22
2	Cr 267.716†	72.5	9.0	0.1164	ug/L	0.1164	ppb	11:35:22
2	Cu 324.752†	6274.0	395.2	1.2708	ug/L	1.2708	ppb	11:35:02
2	Mn 257.610†	732.2	364.9	0.4750	ug/L	0.4750	ppb	11:35:22
2	Mo 202.031†	19.1	5.9	0.5082	ug/L	0.5082	ppb	11:35:22
2	Ni 231.604†	61.9	10.8	0.3402	ug/L	0.3402	ppb	11:35:22

2	P 214.914†	185.2	15.5	11.521 ug/L	11.521 ppb		11:35:22
2	Pb 220.353†	-37.5	5.3	0.8242 ug/L	0.8242 ppb		11:35:22
2	S 181.975 Axial†	27.2	-2.8	-5.0077 ug/L	-5.0077 ppb		11:35:22
2	Sb 206.836†	22.2	-5.6	-2.3142 ug/L	-2.3142 ppb		11:35:22
2	Se 196.026†	-9.1	9.8	7.9597 ug/L	7.9597 ppb		11:35:22
2	Si 251.611†	757.5	328.3	12.165 ug/L	12.165 ppb		11:35:22
2	Sn 189.927†	3.8	-3.9	-0.8917 ug/L	-0.8917 ppb		11:35:22
2	Ti 334.940†	-494.6	450.6	0.7643 ug/L	0.7643 ppb		11:35:02
2	Tl 190.801†	-21.6	8.8	3.4306 ug/L	3.4306 ppb		11:35:22
2	U 409.014†	-1927.3	17.0	0.4972 ug/L	0.4972 ppb		11:35:02
2	V 292.402†	-1202.3	7.7	0.0706 ug/L	0.0706 ppb		11:35:02
2	Zn 213.857†	555.0	69.5	0.8415 ug/L	0.8415 ppb		11:35:22
2	SiO2†	763.5	308.4	24.209 ug/L	24.209 ppb		11:36:28
3	Sc Radial	3229.2	3229.2	96.4 %			11:34:30
3	Y RADIAL	2620.5	2620.5	95.53 %			11:34:30
3	Al 396.153Radial†	-48.2	10.0	21.443 ug/L	21.443 ppb		11:34:30
3	Ca 317.933Radial†	12.8	3.1	12.217 ug/L	12.217 ppb		11:34:30
3	Fe 238.204 Radial†	9.6	1.3	36.219 ug/L	36.219 ppb		11:34:30
3	K 766.490 Radial†	2016.6	-22.1	-10.127 ug/L	-10.127 ppb		11:34:10
3	Mg 279.077 IEC†	3.0	2.7	262.76 ug/L	262.76 ppb		11:34:30
3	Na 589.592 Radial†	-772.8	-19.2	-6.4235 ug/L	-6.4235 ppb		11:34:10
3	Sr 421.552†	32.1	-2.4	-0.0239 ug/L	-0.0239 ppb		11:34:10
3	Sc 361.383	815906.9	815906.9	97.743 %			11:35:27
3	Y 371.029	697342.2	697342.2	97.440 %			11:35:27
3	Ag 328.068†	70.5	-86.9	-0.4277 ug/L	-0.4277 ppb		11:35:27
3	As 188.979†	-25.6	-10.3	-5.6925 ug/L	-5.6925 ppb		11:35:47
3	B 249.677†	-378.2	-296.7	-8.3243 ug/L	-8.3243 ppb		11:35:47
3	Ba 233.527†	35.6	43.6	0.4085 ug/L	0.4085 ppb		11:35:47
3	Be 313.107†	-3631.1	-102.3	-0.0423 ug/L	-0.0423 ppb		11:35:27
3	Cd 226.502†	-163.3	-25.5	-0.3718 ug/L	-0.3718 ppb		11:35:47
3	Co 228.616†	-40.7	1.9	0.0471 ug/L	0.0471 ppb		11:35:47
3	Cr 267.716†	69.1	4.9	0.0662 ug/L	0.0662 ppb		11:35:47
3	Cu 324.752†	6310.8	386.1	1.2442 ug/L	1.2442 ppb		11:35:27
3	Mn 257.610†	735.3	362.6	0.4680 ug/L	0.4680 ppb		11:35:47
3	Mo 202.031†	11.7	-1.8	-0.1555 ug/L	-0.1555 ppb		11:35:47
3	Ni 231.604†	64.7	13.2	0.4145 ug/L	0.4145 ppb		11:35:47
3	P 214.914†	175.0	3.7	2.5147 ug/L	2.5147 ppb		11:35:47
3	Pb 220.353†	-52.4	-9.7	-1.4959 ug/L	-1.4959 ppb		11:35:47
3	S 181.975 Axial†	27.2	-3.0	-5.3859 ug/L	-5.3859 ppb		11:35:47
3	Sb 206.836†	24.9	-3.0	-1.2622 ug/L	-1.2622 ppb		11:35:47
3	Se 196.026†	-22.0	-3.2	-2.5293 ug/L	-2.5293 ppb		11:35:47
3	Si 251.611†	744.5	309.3	11.470 ug/L	11.470 ppb		11:35:47
3	Sn 189.927†	2.0	-5.8	-1.3080 ug/L	-1.3080 ppb		11:35:47
3	Ti 334.940†	-462.8	486.7	0.8073 ug/L	0.8073 ppb		11:35:27
3	Tl 190.801†	-29.6	0.8	0.3142 ug/L	0.3142 ppb		11:35:47
3	U 409.014†	-1948.8	9.3	0.2686 ug/L	0.2686 ppb		11:35:27
3	V 292.402†	-1198.3	20.8	0.1593 ug/L	0.1593 ppb		11:35:27
3	Zn 213.857†	550.7	61.0	0.7302 ug/L	0.7302 ppb		11:35:47
3	SiO2†	776.4	315.9	24.817 ug/L	24.817 ppb		11:36:48

Mean Data: 1202042568|952949|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	813331.4	97.435	%	0.3623				0.37%
Sc Radial	3236.3	96.6	%	0.40				0.42%
Y 371.029	695100.6	97.127	%	0.3515				0.36%
Y RADIAL	2629.9	95.87	%	0.422				0.44%
Ag 328.068†	-57.0	-0.2812	ug/L	0.13102	-0.2812	ppb	0.13102	46.59%
Al 396.153Radial†	9.8	21.119	ug/L	0.7434	21.119	ppb	0.7434	3.52%
As 188.979†	-6.8	-3.7807	ug/L	1.81780	-3.7807	ppb	1.81780	48.08%
B 249.677†	-291.2	-8.1650	ug/L	0.38069	-8.1650	ppb	0.38069	4.66%
Ba 233.527†	37.2	0.3477	ug/L	0.05312	0.3477	ppb	0.05312	15.28%
Be 313.107†	-119.3	-0.0497	ug/L	0.01340	-0.0497	ppb	0.01340	26.95%
Ca 317.933Radial†	4.0	16.005	ug/L	4.3254	16.005	ppb	4.3254	27.02%
Cd 226.502†	-17.9	-0.2609	ug/L	0.10364	-0.2609	ppb	0.10364	39.72%
Co 228.616†	-3.0	-0.0802	ug/L	0.15482	-0.0802	ppb	0.15482	193.05%
Cr 267.716†	1.4	0.0194	ug/L	0.12711	0.0194	ppb	0.12711	656.57%
Cu 324.752†	368.4	1.1873	ug/L	0.12236	1.1873	ppb	0.12236	10.31%
Fe 238.204 Radial†	0.6	16.772	ug/L	28.1944	16.772	ppb	28.1944	168.10%
K 766.490 Radial†	-4.0	-1.8325	ug/L	23.01351	-1.8325	ppb	23.01351	>999.9%

Mg 279.077 IEC†	1.0	94.326	ug/L	148.8151	94.326	ppb	148.8151 157.77%
Mn 257.610†	360.4	0.4701	ug/L	0.00427	0.4701	ppb	0.00427 0.91%
Mo 202.031†	-1.9	-0.1593	ug/L	0.66942	-0.1593	ppb	0.66942 420.31%
Na 589.592 Radial†	18.7	6.2554	ug/L	21.47644	6.2554	ppb	21.47644 343.33%
Ni 231.604†	11.4	0.3606	ug/L	0.04714	0.3606	ppb	0.04714 13.07%
P 214.914†	11.8	8.7264	ug/L	5.38847	8.7264	ppb	5.38847 61.75%
Pb 220.353†	-2.4	-0.3748	ug/L	1.16202	-0.3748	ppb	1.16202 310.06%
S 181.975 Axial†	-2.5	-4.3878	ug/L	1.41395	-4.3878	ppb	1.41395 32.22%
Sb 206.836†	-3.0	-1.2508	ug/L	1.06912	-1.2508	ppb	1.06912 85.47%
Se 196.026†	2.9	2.4054	ug/L	5.27187	2.4054	ppb	5.27187 219.17%
Si 251.611†	320.9	11.901	ug/L	0.3757	11.901	ppb	0.3757 3.16%
Sn 189.927†	-1.9	-0.4385	ug/L	1.16426	-0.4385	ppb	1.16426 265.51%
Sr 421.552†	11.8	0.1170	ug/L	0.19649	0.1170	ppb	0.19649 167.88%
Ti 334.940†	450.9	0.7616	ug/L	0.04717	0.7616	ppb	0.04717 6.19%
Tl 190.801†	4.2	1.6301	ug/L	1.61375	1.6301	ppb	1.61375 99.00%
U 409.014†	-55.4	-1.6193	ug/L	3.46969	-1.6193	ppb	3.46969 214.28%
V 292.402†	14.0	0.1021	ug/L	0.04959	0.1021	ppb	0.04959 48.57%
Zn 213.857†	61.3	0.7377	ug/L	0.10034	0.7377	ppb	0.10034 13.60%
SiO2†	310.0	24.358	ug/L	0.4053	24.358	ppb	0.4053 1.66%

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/10/2010 11:38:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3341.7	3341.7	99.7	%			11:41:11
1	Y RADIAL	2705.0	2705.0	98.61	%			11:41:11
1	Al 396.153Radial†	2244.8	2310.6	4942.0	ug/L	4942.0	ppb	11:40:51
1	Ca 317.933Radial†	1268.8	1261.9	5008.0	ug/L	5008.0	ppb	11:41:11
1	Fe 238.204 Radial†	190.0	181.9	5070.3	ug/L	5070.3	ppb	11:41:11
1	K 766.490 Radial†	12782.9	10701.9	4892.6	ug/L	4892.6	ppb	11:40:51
1	Mg 279.077 IEC†	52.1	51.8	5027.6	ug/L	5027.6	ppb	11:41:11
1	Na 589.592 Radial†	29492.0	30351.6	10136	ug/L	10136	ppb	11:40:51
1	Sr 421.552†	52105.0	52205.4	517.63	ug/L	517.63	ppb	11:40:51
1	Sc 361.383	843332.1	843332.1	101.03	%			11:42:08
1	Y 371.029	713117.4	713117.4	99.644	%			11:42:08
1	Ag 328.068†	100734.5	99549.7	506.06	ug/L	506.06	ppb	11:42:13
1	As 188.979†	878.3	885.3	496.40	ug/L	496.40	ppb	11:42:33
1	B 249.677†	17597.5	17508.5	488.53	ug/L	488.53	ppb	11:42:13
1	Ba 233.527†	53939.7	53397.6	499.96	ug/L	499.96	ppb	11:42:13
1	Be 313.107†	1165056.6	1156806.1	500.35	ug/L	500.35	ppb	11:42:08
1	Cd 226.502†	34810.3	34597.5	500.02	ug/L	500.02	ppb	11:42:13
1	Co 228.616†	19766.7	19608.9	508.61	ug/L	508.61	ppb	11:42:13
1	Cr 267.716†	38737.5	38277.3	499.99	ug/L	499.99	ppb	11:42:13
1	Cu 324.752†	163101.3	155370.1	499.99	ug/L	499.99	ppb	11:42:13
1	Mn 257.610†	384634.4	380328.2	498.68	ug/L	498.68	ppb	11:42:08
1	Mo 202.031†	5788.8	5716.1	493.83	ug/L	493.83	ppb	11:42:33
1	Ni 231.604†	16343.7	16124.2	507.91	ug/L	507.91	ppb	11:42:13
1	P 214.914†	3468.6	3257.9	2376.9	ug/L	2376.9	ppb	11:42:33
1	Pb 220.353†	3195.8	3207.2	498.00	ug/L	498.00	ppb	11:42:33
1	S 181.975 Axial†	578.9	542.2	966.07	ug/L	966.07	ppb	11:42:33
1	Sb 206.836†	1246.8	1205.6	517.37	ug/L	517.37	ppb	11:42:33
1	Se 196.026†	618.6	631.5	530.69	ug/L	530.69	ppb	11:42:33
1	Si 251.611†	68468.4	67318.8	2490.0	ug/L	2490.0	ppb	11:42:13
1	Sn 189.927†	2207.8	2177.5	495.40	ug/L	495.40	ppb	11:42:33
1	Ti 334.940†	290897.7	288896.0	490.87	ug/L	490.87	ppb	11:42:13
1	Tl 190.801†	1260.8	1279.0	499.40	ug/L	499.40	ppb	11:42:33
1	U 409.014†	15633.7	17477.7	508.70	ug/L	508.70	ppb	11:42:13
1	V 292.402†	63494.9	64095.1	506.95	ug/L	506.95	ppb	11:42:13
1	Zn 213.857†	42309.0	41375.7	497.36	ug/L	497.36	ppb	11:42:13
1	SiO2†	67795.9	66627.1	5220.4	ug/L	5220.4	ppb	11:43:41
2	Sc Radial	3346.6	3346.6	99.9	%			11:41:36
2	Y RADIAL	2720.0	2720.0	99.15	%			11:41:36
2	Al 396.153Radial†	2259.1	2321.6	4966.3	ug/L	4966.3	ppb	11:41:16
2	Ca 317.933Radial†	1279.5	1270.7	5042.9	ug/L	5042.9	ppb	11:41:36
2	Fe 238.204 Radial†	191.3	182.9	5097.5	ug/L	5097.5	ppb	11:41:36
2	K 766.490 Radial†	12705.4	10605.3	4848.4	ug/L	4848.4	ppb	11:41:16
2	Mg 279.077 IEC†	52.9	52.5	5094.4	ug/L	5094.4	ppb	11:41:36
2	Na 589.592 Radial†	29380.5	30196.2	10084	ug/L	10084	ppb	11:41:16
2	Sr 421.552†	52007.1	52030.0	515.89	ug/L	515.89	ppb	11:41:16
2	Sc 361.383	877604.6	877604.6	105.13	%			11:42:39
2	Y 371.029	742768.5	742768.5	103.79	%			11:42:39
2	Ag 328.068†	100929.3	95841.1	487.26	ug/L	487.26	ppb	11:42:44
2	As 188.979†	893.0	865.4	485.20	ug/L	485.20	ppb	11:43:04
2	B 249.677†	17648.1	16876.5	470.86	ug/L	470.86	ppb	11:42:44
2	Ba 233.527†	54017.9	51387.0	481.14	ug/L	481.14	ppb	11:42:44
2	Be 313.107†	1176546.6	1122700.1	485.59	ug/L	485.59	ppb	11:42:39
2	Cd 226.502†	34896.8	33334.1	481.74	ug/L	481.74	ppb	11:42:44
2	Co 228.616†	19818.5	18894.2	490.08	ug/L	490.08	ppb	11:42:44
2	Cr 267.716†	38732.5	36775.1	480.37	ug/L	480.37	ppb	11:42:44
2	Cu 324.752†	163116.5	149079.9	479.76	ug/L	479.76	ppb	11:42:44
2	Mn 257.610†	386870.4	367587.1	481.99	ug/L	481.99	ppb	11:42:39
2	Mo 202.031†	5856.6	5556.8	480.09	ug/L	480.09	ppb	11:43:04
2	Ni 231.604†	16350.9	15499.3	488.23	ug/L	488.23	ppb	11:42:44

2	P 214.914†	3501.6	3155.2	2302.8 ug/L	2302.8 ppb	11:43:04
2	Pb 220.353†	3235.0	3121.0	484.63 ug/L	484.63 ppb	11:43:04
2	S 181.975 Axial†	583.8	524.4	934.43 ug/L	934.43 ppb	11:43:04
2	Sb 206.836†	1267.7	1177.3	505.12 ug/L	505.12 ppb	11:43:04
2	Se 196.026†	614.3	603.6	507.97 ug/L	507.97 ppb	11:43:04
2	Si 251.611†	68440.4	64645.5	2391.0 ug/L	2391.0 ppb	11:42:44
2	Sn 189.927†	2231.4	2114.6	481.11 ug/L	481.11 ppb	11:43:04
2	Ti 334.940†	291030.1	277777.3	471.98 ug/L	471.98 ppb	11:42:44
2	Tl 190.801†	1276.9	1245.6	486.34 ug/L	486.34 ppb	11:43:04
2	U 409.014†	15986.6	17209.0	500.89 ug/L	500.89 ppb	11:42:44
2	V 292.402†	63508.9	61654.0	487.71 ug/L	487.71 ppb	11:42:44
2	Zn 213.857†	42286.9	39719.3	477.41 ug/L	477.41 ppb	11:42:44
2	SiO2†	68171.6	64363.8	5043.0 ug/L	5043.0 ppb	11:43:46
3	Sc Radial	3318.9	3318.9	99.1 %		11:42:01
3	Y RADIAL	2694.6	2694.6	98.23 %		11:42:01
3	Al 396.153Radial†	2266.1	2347.6	5021.3 ug/L	5021.3 ppb	11:41:41
3	Ca 317.933Radial†	1269.6	1271.4	5045.6 ug/L	5045.6 ppb	11:42:01
3	Fe 238.204 Radial†	190.9	184.1	5132.5 ug/L	5132.5 ppb	11:42:01
3	K 766.490 Radial†	12872.3	10880.0	4974.0 ug/L	4974.0 ppb	11:41:41
3	Mg 279.077 IEC†	52.8	52.9	5130.6 ug/L	5130.6 ppb	11:42:01
3	Na 589.592 Radial†	29908.6	30974.9	10344 ug/L	10344 ppb	11:41:41
3	Sr 421.552†	52764.5	53229.3	527.79 ug/L	527.79 ppb	11:41:41
3	Sc 361.383	840250.7	840250.7	100.66 %		11:43:10
3	Y 371.029	710861.5	710861.5	99.329 %		11:43:10
3	Ag 328.068†	100806.7	99987.1	508.29 ug/L	508.29 ppb	11:43:15
3	As 188.979†	893.4	903.5	506.53 ug/L	506.53 ppb	11:43:35
3	B 249.677†	17644.2	17618.8	491.60 ug/L	491.60 ppb	11:43:15
3	Ba 233.527†	54138.5	53790.9	503.64 ug/L	503.64 ppb	11:43:15
3	Be 313.107†	1178177.2	1174069.8	507.81 ug/L	507.81 ppb	11:43:10
3	Cd 226.502†	34962.4	34874.9	504.03 ug/L	504.03 ppb	11:43:15
3	Co 228.616†	19922.0	19835.0	514.48 ug/L	514.48 ppb	11:43:15
3	Cr 267.716†	38834.4	38514.2	503.08 ug/L	503.08 ppb	11:43:15
3	Cu 324.752†	162560.0	155424.4	500.17 ug/L	500.17 ppb	11:43:15
3	Mn 257.610†	387798.9	384868.2	504.63 ug/L	504.63 ppb	11:43:10
3	Mo 202.031†	5822.7	5770.8	498.55 ug/L	498.55 ppb	11:43:35
3	Ni 231.604†	16395.6	16235.1	511.40 ug/L	511.40 ppb	11:43:15
3	P 214.914†	3480.6	3282.4	2395.6 ug/L	2395.6 ppb	11:43:35
3	Pb 220.353†	3203.4	3226.4	501.00 ug/L	501.00 ppb	11:43:35
3	S 181.975 Axial†	587.1	552.4	984.27 ug/L	984.27 ppb	11:43:35
3	Sb 206.836†	1246.9	1210.3	519.53 ug/L	519.53 ppb	11:43:35
3	Se 196.026†	601.4	616.6	518.79 ug/L	518.79 ppb	11:43:35
3	Si 251.611†	68405.5	67504.8	2496.8 ug/L	2496.8 ppb	11:43:15
3	Sn 189.927†	2239.1	2216.6	504.28 ug/L	504.28 ppb	11:43:35
3	Ti 334.940†	291089.8	290142.7	492.98 ug/L	492.98 ppb	11:43:15
3	Tl 190.801†	1276.8	1299.5	507.37 ug/L	507.37 ppb	11:43:35
3	U 409.014†	15780.2	17680.0	514.59 ug/L	514.59 ppb	11:43:15
3	V 292.402†	63437.0	64268.1	508.36 ug/L	508.36 ppb	11:43:15
3	Zn 213.857†	42470.4	41689.7	501.14 ug/L	501.14 ppb	11:43:15
3	SiO2†	68802.4	67873.1	5318.1 ug/L	5318.1 ppb	11:43:51

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	853729.1	102.27	%	2.484				2.43%
Sc Radial	3335.8	99.6	%	0.44				0.44%
Y 371.029	722249.1	100.92	%	2.488				2.47%
Y RADIAL	2706.5	98.66	%	0.465				0.47%
Ag 328.068†	98459.3	500.54	ug/L	11.551	500.54	ppb	11.551	2.31%
QC value within limits for Ag 328.068 Recovery = 100.11%								
Al 396.153Radial†	2326.6	4976.5	ug/L	40.61	4976.5	ppb	40.61	0.82%
QC value within limits for Al 396.153Radial Recovery = 99.53%								
As 188.979†	884.7	496.04	ug/L	10.669	496.04	ppb	10.669	2.15%
QC value within limits for As 188.979 Recovery = 99.21%								
B 249.677†	17334.6	483.66	ug/L	11.191	483.66	ppb	11.191	2.31%
QC value within limits for B 249.677 Recovery = 96.73%								
Ba 233.527†	52858.5	494.91	ug/L	12.068	494.91	ppb	12.068	2.44%
QC value within limits for Ba 233.527 Recovery = 98.98%								
Be 313.107†	1151192.0	497.92	ug/L	11.307	497.92	ppb	11.307	2.27%
QC value within limits for Be 313.107 Recovery = 99.58%								
Ca 317.933Radial†	1268.0	5032.2	ug/L	20.99	5032.2	ppb	20.99	0.42%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.64%
Cd 226.502†            34268.8      495.26 ug/L        11.880      495.26 ppb         11.880   2.40%
   QC value within limits for Cd 226.502  Recovery = 99.05%
Co 228.616†            19446.0      504.39 ug/L        12.734      504.39 ppb         12.734   2.52%
   QC value within limits for Co 228.616  Recovery = 100.88%
Cr 267.716†            37855.5      494.48 ug/L        12.316      494.48 ppb         12.316   2.49%
   QC value within limits for Cr 267.716  Recovery = 98.90%
Cu 324.752†           153291.5      493.31 ug/L        11.735      493.31 ppb         11.735   2.38%
   QC value within limits for Cu 324.752  Recovery = 98.66%
Fe 238.204 Radial†       182.9      5100.1 ug/L         31.18      5100.1 ppb          31.18   0.61%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.00%
K 766.490 Radial†      10729.1      4905.0 ug/L         63.72      4905.0 ppb          63.72   1.30%
   QC value within limits for K 766.490 Radial  Recovery = 98.10%
Mg 279.077 IEC†           52.4      5084.2 ug/L         52.23      5084.2 ppb          52.23   1.03%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.68%
Mn 257.610†           377594.5      495.10 ug/L        11.741      495.10 ppb         11.741   2.37%
   QC value within limits for Mn 257.610  Recovery = 99.02%
Mo 202.031†             5681.2      490.82 ug/L         9.593      490.82 ppb          9.593   1.95%
   QC value within limits for Mo 202.031  Recovery = 98.16%
Na 589.592 Radial†     30507.6       10188 ug/L         137.6       10188 ppb          137.6   1.35%
   QC value within limits for Na 589.592 Radial  Recovery = 101.88%
Ni 231.604†            15952.9      502.51 ug/L        12.496      502.51 ppb         12.496   2.49%
   QC value within limits for Ni 231.604  Recovery = 100.50%
P 214.914†              3231.8      2358.4 ug/L         49.09      2358.4 ppb          49.09   2.08%
   QC value within limits for P 214.914  Recovery = 94.34%
Pb 220.353†             3184.8      494.55 ug/L         8.712      494.55 ppb          8.712   1.76%
   QC value within limits for Pb 220.353  Recovery = 98.91%
S 181.975 Axial†         539.6      961.59 ug/L        25.219      961.59 ppb         25.219   2.62%
   QC value within limits for S 181.975 Axial  Recovery = 96.16%
Sb 206.836†             1197.7      514.01 ug/L         7.770      514.01 ppb          7.770   1.51%
   QC value within limits for Sb 206.836  Recovery = 102.80%
Se 196.026†              617.2      519.15 ug/L        11.367      519.15 ppb         11.367   2.19%
   QC value within limits for Se 196.026  Recovery = 103.83%
Si 251.611†            66489.7      2459.3 ug/L         59.20      2459.3 ppb          59.20   2.41%
   QC value within limits for Si 251.611  Recovery = 98.37%
Sn 189.927†             2169.6      493.60 ug/L        11.687      493.60 ppb         11.687   2.37%
   QC value within limits for Sn 189.927  Recovery = 98.72%
Sr 421.552†            52488.2      520.44 ug/L         6.423      520.44 ppb          6.423   1.23%
   QC value within limits for Sr 421.552  Recovery = 104.09%
Ti 334.940†           285605.3      485.28 ug/L        11.563      485.28 ppb         11.563   2.38%
   QC value within limits for Ti 334.940  Recovery = 97.06%
Tl 190.801†             1274.7      497.70 ug/L        10.617      497.70 ppb         10.617   2.13%
   QC value within limits for Tl 190.801  Recovery = 99.54%
U 409.014†             17455.6      508.06 ug/L         6.872      508.06 ppb          6.872   1.35%
   QC value within limits for U 409.014  Recovery = 101.61%
V 292.402†             63339.1      501.00 ug/L        11.539      501.00 ppb         11.539   2.30%
   QC value within limits for V 292.402  Recovery = 100.20%
Zn 213.857†            40928.2      491.97 ug/L        12.749      491.97 ppb         12.749   2.59%
   QC value within limits for Zn 213.857  Recovery = 98.39%
SiO2†                  66288.0      5193.8 ug/L        139.49      5193.8 ppb         139.49   2.69%
   QC value within limits for SiO2  Recovery = 97.13%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/10/2010 11:46:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3203.5	3203.5	95.6	%			11:48:14
1	Y RADIAL	2615.8	2615.8	95.35	%			11:48:14
1	Al 396.153Radial†	-62.1	-5.0	-10.626	ug/L	-10.626	ppb	11:48:14
1	Ca 317.933Radial†	12.1	2.5	9.8840	ug/L	9.8840	ppb	11:48:14
1	Fe 238.204 Radial†	9.7	1.5	42.052	ug/L	42.052	ppb	11:48:14
1	K 766.490 Radial†	2154.2	138.6	63.428	ug/L	63.428	ppb	11:47:54
1	Mg 279.077 IEC†	0.0	-0.4	-39.069	ug/L	-39.069	ppb	11:48:14
1	Na 589.592 Radial†	-762.4	-14.8	-4.9361	ug/L	-4.9361	ppb	11:47:54
1	Sr 421.552†	25.7	-8.8	-0.0871	ug/L	-0.0871	ppb	11:47:54
1	Sc 361.383	811194.6	811194.6	97.179	%			11:49:11
1	Y 371.029	693242.5	693242.5	96.867	%			11:49:11
1	Ag 328.068†	162.9	8.6	0.0593	ug/L	0.0593	ppb	11:49:11
1	As 188.979†	-28.1	-13.0	-7.2103	ug/L	-7.2103	ppb	11:49:31
1	B 249.677†	-257.7	-175.0	-4.9136	ug/L	-4.9136	ppb	11:49:31
1	Ba 233.527†	6.7	14.1	0.1332	ug/L	0.1332	ppb	11:49:31
1	Be 313.107†	-3408.3	105.3	0.0455	ug/L	0.0455	ppb	11:49:11
1	Cd 226.502†	-143.2	-5.8	-0.0879	ug/L	-0.0879	ppb	11:49:31
1	Co 228.616†	-31.7	11.0	0.2831	ug/L	0.2831	ppb	11:49:31
1	Cr 267.716†	57.8	-6.2	-0.0784	ug/L	-0.0784	ppb	11:49:31
1	Cu 324.752†	6178.3	287.2	0.9282	ug/L	0.9282	ppb	11:49:11
1	Mn 257.610†	439.5	62.5	0.0877	ug/L	0.0877	ppb	11:49:31
1	Mo 202.031†	9.8	-3.7	-0.3126	ug/L	-0.3126	ppb	11:49:31
1	Ni 231.604†	62.3	11.1	0.3502	ug/L	0.3502	ppb	11:49:31
1	P 214.914†	168.4	-2.1	-1.7848	ug/L	-1.7848	ppb	11:49:31
1	Pb 220.353†	-46.7	-4.1	-0.6493	ug/L	-0.6493	ppb	11:49:31
1	S 181.975 Axial†	27.8	-2.3	-4.0753	ug/L	-4.0753	ppb	11:49:31
1	Sb 206.836†	25.6	-2.1	-0.8802	ug/L	-0.8802	ppb	11:49:31
1	Se 196.026†	-17.0	1.7	1.5316	ug/L	1.5316	ppb	11:49:31
1	Si 251.611†	499.4	61.5	2.2858	ug/L	2.2858	ppb	11:49:31
1	Sn 189.927†	6.1	-1.6	-0.3618	ug/L	-0.3618	ppb	11:49:31
1	Ti 334.940†	-932.7	0.5	0.0068	ug/L	0.0068	ppb	11:49:11
1	Tl 190.801†	-18.5	12.1	4.6836	ug/L	4.6836	ppb	11:49:31
1	U 409.014†	-2051.6	-108.0	-3.1599	ug/L	-3.1599	ppb	11:49:11
1	V 292.402†	-1195.1	17.0	0.1153	ug/L	0.1153	ppb	11:49:11
1	Zn 213.857†	525.1	37.9	0.4500	ug/L	0.4500	ppb	11:49:31
1	SiO2†	497.0	33.0	2.5973	ug/L	2.5973	ppb	11:50:42
2	Sc Radial	3203.9	3203.9	95.6	%			11:48:39
2	Y RADIAL	2611.7	2611.7	95.21	%			11:48:39
2	Al 396.153Radial†	-63.6	-6.5	-13.970	ug/L	-13.970	ppb	11:48:39
2	Ca 317.933Radial†	8.5	-1.3	-5.0984	ug/L	-5.0984	ppb	11:48:39
2	Fe 238.204 Radial†	7.5	-0.7	-20.551	ug/L	-20.551	ppb	11:48:39
2	K 766.490 Radial†	2066.0	46.0	21.084	ug/L	21.084	ppb	11:48:19
2	Mg 279.077 IEC†	3.0	2.7	265.67	ug/L	265.67	ppb	11:48:39
2	Na 589.592 Radial†	-793.7	-47.4	-15.836	ug/L	-15.836	ppb	11:48:19
2	Sr 421.552†	24.9	-9.7	-0.0959	ug/L	-0.0959	ppb	11:48:19
2	Sc 361.383	814884.6	814884.6	97.621	%			11:49:36
2	Y 371.029	697810.3	697810.3	97.505	%			11:49:36
2	Ag 328.068†	91.7	-65.1	-0.3338	ug/L	-0.3338	ppb	11:49:36
2	As 188.979†	-23.1	-7.7	-4.3031	ug/L	-4.3031	ppb	11:49:56
2	B 249.677†	-218.2	-133.3	-3.7328	ug/L	-3.7328	ppb	11:49:56
2	Ba 233.527†	5.3	12.6	0.1168	ug/L	0.1168	ppb	11:49:56
2	Be 313.107†	-3497.9	29.4	0.0130	ug/L	0.0130	ppb	11:49:36
2	Cd 226.502†	-143.7	-5.6	-0.0786	ug/L	-0.0786	ppb	11:49:56
2	Co 228.616†	-43.0	-0.5	-0.0133	ug/L	-0.0133	ppb	11:49:56
2	Cr 267.716†	73.6	9.7	0.1264	ug/L	0.1264	ppb	11:49:56
2	Cu 324.752†	6151.4	230.9	0.7427	ug/L	0.7427	ppb	11:49:36
2	Mn 257.610†	496.1	118.5	0.1424	ug/L	0.1424	ppb	11:49:56
2	Mo 202.031†	12.7	-0.7	-0.0647	ug/L	-0.0647	ppb	11:49:56
2	Ni 231.604†	72.9	21.6	0.6818	ug/L	0.6818	ppb	11:49:56

2	P 214.914†	168.7	-2.6	-2.1081 ug/L	-2.1081 ppb	11:49:56
2	Pb 220.353†	-35.9	7.1	1.1040 ug/L	1.1040 ppb	11:49:56
2	S 181.975 Axial†	26.3	-3.9	-6.9772 ug/L	-6.9772 ppb	11:49:56
2	Sb 206.836†	26.7	-1.2	-0.4590 ug/L	-0.4590 ppb	11:49:56
2	Se 196.026†	-19.1	-0.3	-0.3390 ug/L	-0.3390 ppb	11:49:56
2	Si 251.611†	477.3	36.5	1.3535 ug/L	1.3535 ppb	11:49:56
2	Sn 189.927†	14.6	7.1	1.6249 ug/L	1.6249 ppb	11:49:56
2	Ti 334.940†	-862.2	77.0	0.1091 ug/L	0.1091 ppb	11:49:36
2	Tl 190.801†	-24.9	5.6	2.1725 ug/L	2.1725 ppb	11:49:56
2	U 409.014†	-2003.6	-49.3	-1.4382 ug/L	-1.4382 ppb	11:49:36
2	V 292.402†	-1209.2	8.0	0.0670 ug/L	0.0670 ppb	11:49:36
2	Zn 213.857†	535.6	46.2	0.5580 ug/L	0.5580 ppb	11:49:56
2	SiO2†	502.6	36.3	2.8555 ug/L	2.8555 ppb	11:51:02
3	Sc Radial	3238.8	3238.8	96.7 %		11:49:04
3	Y RADIAL	2633.7	2633.7	96.00 %		11:49:04
3	Al 396.153Radial†	-63.2	-5.4	-11.580 ug/L	-11.580 ppb	11:49:04
3	Ca 317.933Radial†	10.9	1.0	4.1316 ug/L	4.1316 ppb	11:49:04
3	Fe 238.204 Radial†	5.7	-2.7	-76.404 ug/L	-76.404 ppb	11:49:04
3	K 766.490 Radial†	2098.2	56.0	25.659 ug/L	25.659 ppb	11:48:44
3	Mg 279.077 IEC†	2.2	1.9	182.09 ug/L	182.09 ppb	11:49:04
3	Na 589.592 Radial†	-852.7	-99.5	-33.233 ug/L	-33.233 ppb	11:48:44
3	Sr 421.552†	27.3	-7.4	-0.0735 ug/L	-0.0735 ppb	11:48:44
3	Sc 361.383	812951.8	812951.8	97.389 %		11:50:02
3	Y 371.029	695414.4	695414.4	97.170 %		11:50:02
3	Ag 328.068†	92.8	-63.8	-0.3458 ug/L	-0.3458 ppb	11:50:02
3	As 188.979†	-17.0	-1.5	-0.8501 ug/L	-0.8501 ppb	11:50:22
3	B 249.677†	-275.4	-192.6	-5.3863 ug/L	-5.3863 ppb	11:50:22
3	Ba 233.527†	7.4	14.7	0.1362 ug/L	0.1362 ppb	11:50:22
3	Be 313.107†	-3553.1	-35.8	-0.0155 ug/L	-0.0155 ppb	11:50:02
3	Cd 226.502†	-144.5	-6.8	-0.0894 ug/L	-0.0894 ppb	11:50:22
3	Co 228.616†	-50.9	-8.7	-0.2254 ug/L	-0.2254 ppb	11:50:22
3	Cr 267.716†	47.3	-17.1	-0.2269 ug/L	-0.2269 ppb	11:50:22
3	Cu 324.752†	6214.1	310.2	0.9933 ug/L	0.9933 ppb	11:50:02
3	Mn 257.610†	470.7	93.7	0.1077 ug/L	0.1077 ppb	11:50:22
3	Mo 202.031†	13.9	0.5	0.0391 ug/L	0.0391 ppb	11:50:22
3	Ni 231.604†	67.6	16.4	0.5161 ug/L	0.5161 ppb	11:50:22
3	P 214.914†	172.3	1.5	1.0176 ug/L	1.0176 ppb	11:50:22
3	Pb 220.353†	-57.9	-15.5	-2.3939 ug/L	-2.3939 ppb	11:50:22
3	S 181.975 Axial†	30.7	0.7	1.1651 ug/L	1.1651 ppb	11:50:22
3	Sb 206.836†	25.4	-2.4	-1.0164 ug/L	-1.0164 ppb	11:50:22
3	Se 196.026†	-19.2	-0.5	-0.6173 ug/L	-0.6173 ppb	11:50:22
3	Si 251.611†	502.8	63.8	2.3666 ug/L	2.3666 ppb	11:50:22
3	Sn 189.927†	4.4	-3.3	-0.7443 ug/L	-0.7443 ppb	11:50:22
3	Ti 334.940†	-948.8	-14.0	-0.0388 ug/L	-0.0388 ppb	11:50:02
3	Tl 190.801†	-34.2	-4.1	-1.5748 ug/L	-1.5748 ppb	11:50:22
3	U 409.014†	-1886.3	66.3	1.9450 ug/L	1.9450 ppb	11:50:02
3	V 292.402†	-1160.4	55.2	0.4501 ug/L	0.4501 ppb	11:50:02
3	Zn 213.857†	523.1	34.7	0.4275 ug/L	0.4275 ppb	11:50:22
3	SiO2†	501.0	36.0	2.8252 ug/L	2.8252 ppb	11:51:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	813010.3	97.396	%	0.2211				0.23%
Sc Radial	3215.4	96.0	%	0.60				0.63%
Y 371.029	695489.1	97.181	%	0.3193				0.33%
Y RADIAL	2620.4	95.52	%	0.425				0.45%
Ag 328.068†	-40.1	-0.2068	ug/L	0.23051	-0.2068	ppb	0.23051	111.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.6	-12.059	ug/L	1.7226	-12.059	ppb	1.7226	14.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.4	-4.1212	ug/L	3.18403	-4.1212	ppb	3.18403	77.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-167.0	-4.6776	ug/L	0.85163	-4.6776	ppb	0.85163	18.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.8	0.1287	ug/L	0.01047	0.1287	ppb	0.01047	8.13%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	33.0	0.0143	ug/L	0.03050	0.0143	ppb	0.03050	212.98%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.7	2.9724	ug/L	7.55815	2.9724	ppb	7.55815	254.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -6.0     -0.0853 ug/L       0.00585     -0.0853 ppb        0.00585   6.85%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               0.6      0.0148 ug/L       0.25537      0.0148 ppb        0.25537 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -4.6     -0.0596 ug/L       0.17738     -0.0596 ppb        0.17738 297.53%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             276.1      0.8881 ug/L       0.13005      0.8881 ppb        0.13005  14.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -18.301 ug/L       59.2602     -18.301 ppb        59.2602 323.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        80.2      36.724 ug/L       23.2398      36.724 ppb        23.2398  63.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.4      136.23 ug/L       157.462      136.23 ppb        157.462 115.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              91.6      0.1126 ug/L       0.02769      0.1126 ppb        0.02769  24.59%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.3     -0.1127 ug/L       0.18069     -0.1127 ppb        0.18069 160.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -53.9     -18.002 ug/L       14.2723     -18.002 ppb        14.2723  79.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              16.4      0.5160 ug/L       0.16583      0.5160 ppb        0.16583  32.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.0     -0.9584 ug/L       1.71887     -0.9584 ppb        1.71887 179.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.2     -0.6464 ug/L       1.74895     -0.6464 ppb        1.74895 270.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.8     -3.2958 ug/L       4.12673     -3.2958 ppb        4.12673 125.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.9     -0.7852 ug/L       0.29058     -0.7852 ppb        0.29058  37.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.3      0.1917 ug/L       1.16867      0.1917 ppb        1.16867 609.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              54.0      2.0020 ug/L       0.56306      2.0020 ppb        0.56306  28.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.8      0.1729 ug/L       1.27189      0.1729 ppb        1.27189 735.63%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -8.6     -0.0855 ug/L       0.01131     -0.0855 ppb        0.01131  13.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              21.2      0.0257 ug/L       0.07574      0.0257 ppb        0.07574 294.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.5      1.7604 ug/L       3.14949      1.7604 ppb        3.14949 178.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -30.4     -0.8844 ug/L       2.59716     -0.8844 ppb        2.59716 293.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               26.7      0.2108 ug/L       0.20864      0.2108 ppb        0.20864  98.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              39.6      0.4785 ug/L       0.06980      0.4785 ppb        0.06980  14.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    35.1      2.7594 ug/L       0.14114      2.7594 ppb        0.14114   5.12%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: 1202042569|952959|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 3/10/2010 11:53:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042569|952959|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3328.8	3328.8	99.4	%			11:55:45
1	Y RADIAL	2700.5	2700.5	98.44	%			11:55:45
1	Al 396.153Radial†	2376.0	2451.5	5243.8	ug/L	5243.8	ppb	11:55:25
1	Ca 317.933Radial†	1309.5	1307.8	5189.9	ug/L	5189.9	ppb	11:55:45
1	Fe 238.204 Radial†	196.8	189.5	5281.6	ug/L	5281.6	ppb	11:55:45
1	K 766.490 Radial†	12909.6	10879.2	4975.5	ug/L	4975.5	ppb	11:55:25
1	Mg 279.077 IEC†	53.9	53.8	5219.0	ug/L	5219.0	ppb	11:55:45
1	Na 589.592 Radial†	15537.3	16421.0	5483.9	ug/L	5483.9	ppb	11:55:25
1	Sr 421.552†	55493.8	55819.0	553.47	ug/L	553.47	ppb	11:55:25
1	Sc 361.383	838758.4	838758.4	100.48	%			11:56:43
1	Y 371.029	709691.7	709691.7	99.165	%			11:56:43
1	Ag 328.068†	99344.4	98709.9	501.95	ug/L	501.95	ppb	11:56:48
1	As 188.979†	899.9	911.6	511.22	ug/L	511.22	ppb	11:57:08
1	B 249.677†	17965.6	17969.8	501.42	ug/L	501.42	ppb	11:56:48
1	Ba 233.527†	56048.1	55787.1	522.34	ug/L	522.34	ppb	11:56:48
1	Be 313.107†	1184319.1	1182264.8	511.39	ug/L	511.39	ppb	11:56:43
1	Cd 226.502†	35125.7	35099.2	507.28	ug/L	507.28	ppb	11:56:48
1	Co 228.616†	19830.4	19779.1	513.01	ug/L	513.01	ppb	11:56:48
1	Cr 267.716†	40306.2	40047.6	523.11	ug/L	523.11	ppb	11:56:48
1	Cu 324.752†	171466.3	164575.4	529.60	ug/L	529.60	ppb	11:56:48
1	Mn 257.610†	398656.7	396359.5	519.70	ug/L	519.70	ppb	11:56:43
1	Mo 202.031†	5968.4	5926.0	511.97	ug/L	511.97	ppb	11:57:08
1	Ni 231.604†	17078.9	16944.1	533.75	ug/L	533.75	ppb	11:56:48
1	P 214.914†	964.9	784.9	493.00	ug/L	493.00	ppb	11:57:08
1	Pb 220.353†	3249.2	3277.5	508.97	ug/L	508.97	ppb	11:57:08
1	S 181.975 Axial†	2906.9	2862.1	5103.9	ug/L	5103.9	ppb	11:57:08
1	Sb 206.836†	1354.8	1319.8	565.64	ug/L	565.64	ppb	11:57:08
1	Se 196.026†	603.5	619.9	521.93	ug/L	521.93	ppb	11:57:08
1	Si 251.611†	138714.9	137598.8	5095.6	ug/L	5095.6	ppb	11:56:48
1	Sn 189.927†	2356.0	2336.9	531.64	ug/L	531.64	ppb	11:57:08
1	Ti 334.940†	302580.8	302093.2	513.28	ug/L	513.28	ppb	11:56:48
1	Tl 190.801†	1304.5	1329.3	519.15	ug/L	519.15	ppb	11:57:08
1	U 409.014†	17282.5	19203.0	559.00	ug/L	559.00	ppb	11:56:48
1	V 292.402†	66595.2	67523.3	534.00	ug/L	534.00	ppb	11:56:48
1	Zn 213.857†	43332.9	42623.1	512.26	ug/L	512.26	ppb	11:56:48
1	SiO2†	141778.4	140621.5	11032	ug/L	11032	ppb	11:58:15
2	Sc Radial	3338.0	3338.0	99.6	%			11:56:10
2	Y RADIAL	2706.7	2706.7	98.67	%			11:56:10
2	Al 396.153Radial†	2337.5	2406.2	5146.4	ug/L	5146.4	ppb	11:55:50
2	Ca 317.933Radial†	1293.6	1288.2	5112.5	ug/L	5112.5	ppb	11:56:10
2	Fe 238.204 Radial†	195.3	187.4	5222.8	ug/L	5222.8	ppb	11:56:10
2	K 766.490 Radial†	12810.4	10743.8	4913.6	ug/L	4913.6	ppb	11:55:50
2	Mg 279.077 IEC†	52.7	52.5	5090.8	ug/L	5090.8	ppb	11:56:10
2	Na 589.592 Radial†	15267.0	16106.5	5378.9	ug/L	5378.9	ppb	11:55:50
2	Sr 421.552†	54591.4	54759.2	542.96	ug/L	542.96	ppb	11:55:50
2	Sc 361.383	842236.1	842236.1	100.90	%			11:57:14
2	Y 371.029	711536.4	711536.4	99.423	%			11:57:14
2	Ag 328.068†	98527.5	97492.1	495.76	ug/L	495.76	ppb	11:57:19
2	As 188.979†	909.8	917.6	514.50	ug/L	514.50	ppb	11:57:39
2	B 249.677†	17883.5	17814.6	497.08	ug/L	497.08	ppb	11:57:19
2	Ba 233.527†	55522.4	55035.7	515.31	ug/L	515.31	ppb	11:57:19
2	Be 313.107†	1190899.0	1183919.2	512.09	ug/L	512.09	ppb	11:57:14
2	Cd 226.502†	34816.9	34648.7	500.77	ug/L	500.77	ppb	11:57:19
2	Co 228.616†	19782.9	19650.5	509.70	ug/L	509.70	ppb	11:57:19
2	Cr 267.716†	39983.3	39561.9	516.77	ug/L	516.77	ppb	11:57:19
2	Cu 324.752†	169828.7	162247.7	522.11	ug/L	522.11	ppb	11:57:19
2	Mn 257.610†	401594.3	397632.7	521.37	ug/L	521.37	ppb	11:57:14
2	Mo 202.031†	6032.7	5965.3	515.35	ug/L	515.35	ppb	11:57:39
2	Ni 231.604†	16991.9	16787.7	528.83	ug/L	528.83	ppb	11:57:19

2	P 214.914†	974.4	790.4	498.65	ug/L	498.65 ppb	11:57:39
2	Pb 220.353†	3266.0	3280.9	509.48	ug/L	509.48 ppb	11:57:39
2	S 181.975 Axial†	2935.7	2878.7	5133.6	ug/L	5133.6 ppb	11:57:39
2	Sb 206.836†	1363.1	1322.5	566.80	ug/L	566.80 ppb	11:57:39
2	Se 196.026†	610.0	623.8	524.95	ug/L	524.95 ppb	11:57:39
2	Si 251.611†	137663.5	135986.6	5035.8	ug/L	5035.8 ppb	11:57:19
2	Sn 189.927†	2356.1	2327.3	529.45	ug/L	529.45 ppb	11:57:39
2	Ti 334.940†	299770.6	298064.6	506.44	ug/L	506.44 ppb	11:57:19
2	Tl 190.801†	1330.3	1349.6	526.96	ug/L	526.96 ppb	11:57:39
2	U 409.014†	16888.8	18741.8	545.56	ug/L	545.56 ppb	11:57:19
2	V 292.402†	66025.1	66684.6	527.49	ug/L	527.49 ppb	11:57:19
2	Zn 213.857†	43088.7	42202.9	507.21	ug/L	507.21 ppb	11:57:19
2	SiO2†	138373.7	136664.5	10722	ug/L	10722 ppb	11:58:20
3	Sc Radial	3347.9	3347.9	99.9	%		11:56:36
3	Y RADIAL	2717.8	2717.8	99.07	%		11:56:36
3	Al 396.153Radial†	2397.0	2458.8	5259.5	ug/L	5259.5 ppb	11:56:15
3	Ca 317.933Radial†	1307.5	1298.3	5152.3	ug/L	5152.3 ppb	11:56:36
3	Fe 238.204 Radial†	200.5	192.0	5352.7	ug/L	5352.7 ppb	11:56:36
3	K 766.490 Radial†	13055.9	10951.1	5008.4	ug/L	5008.4 ppb	11:56:15
3	Mg 279.077 IEC†	54.0	53.6	5199.3	ug/L	5199.3 ppb	11:56:36
3	Na 589.592 Radial†	15487.8	16281.8	5437.4	ug/L	5437.4 ppb	11:56:15
3	Sr 421.552†	55764.5	55769.8	552.98	ug/L	552.98 ppb	11:56:15
3	Sc 361.383	834852.9	834852.9	100.01	%		11:57:45
3	Y 371.029	705639.5	705639.5	98.599	%		11:57:45
3	Ag 328.068†	100921.9	100749.8	512.30	ug/L	512.30 ppb	11:57:50
3	As 188.979†	901.2	917.0	514.34	ug/L	514.34 ppb	11:58:10
3	B 249.677†	18396.6	18484.4	515.80	ug/L	515.80 ppb	11:57:50
3	Ba 233.527†	56620.8	56620.6	530.15	ug/L	530.15 ppb	11:57:50
3	Be 313.107†	1177728.7	1181189.0	510.95	ug/L	510.95 ppb	11:57:45
3	Cd 226.502†	35391.0	35528.0	513.47	ug/L	513.47 ppb	11:57:50
3	Co 228.616†	20082.3	20123.2	521.92	ug/L	521.92 ppb	11:57:50
3	Cr 267.716†	40637.3	40566.3	529.88	ug/L	529.88 ppb	11:57:50
3	Cu 324.752†	174857.1	168764.0	543.08	ug/L	543.08 ppb	11:57:50
3	Mn 257.610†	397740.6	397299.5	520.94	ug/L	520.94 ppb	11:57:45
3	Mo 202.031†	5970.1	5955.5	514.52	ug/L	514.52 ppb	11:58:10
3	Ni 231.604†	17237.2	17181.9	541.24	ug/L	541.24 ppb	11:57:50
3	P 214.914†	964.6	789.1	493.41	ug/L	493.41 ppb	11:58:10
3	Pb 220.353†	3251.1	3294.6	511.60	ug/L	511.60 ppb	11:58:10
3	S 181.975 Axial†	2911.5	2880.3	5136.4	ug/L	5136.4 ppb	11:58:10
3	Sb 206.836†	1352.0	1323.3	567.09	ug/L	567.09 ppb	11:58:10
3	Se 196.026†	601.6	620.7	522.83	ug/L	522.83 ppb	11:58:10
3	Si 251.611†	140712.4	140241.8	5193.6	ug/L	5193.6 ppb	11:57:50
3	Sn 189.927†	2335.0	2326.9	529.35	ug/L	529.35 ppb	11:58:10
3	Ti 334.940†	307059.2	307979.7	523.27	ug/L	523.27 ppb	11:57:50
3	Tl 190.801†	1308.1	1339.0	522.90	ug/L	522.90 ppb	11:58:10
3	U 409.014†	17576.8	19577.7	569.92	ug/L	569.92 ppb	11:57:50
3	V 292.402†	67382.4	68620.5	542.60	ug/L	542.60 ppb	11:57:50
3	Zn 213.857†	43841.4	43333.3	520.80	ug/L	520.80 ppb	11:57:50
3	SiO2†	139859.[illegible]	139363.0	10934	ug/L	10934 ppb	11:58:26

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Mean Data: 1202042569|952959|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	838615.8	100.46	%	0.442				0.44%
Sc Radial	3338.2	99.6	%	0.29				0.29%
Y 371.029	708955.9	99.063	%	0.4215				0.43%
Y RADIAL	2708.3	98.73	%	0.321				0.32%
Ag 328.068†	98984.0	503.34	ug/L	8.357	503.34	ppb	8.357	1.66%
Al 396.153Radial†	2438.8	5216.6	ug/L	61.29	5216.6	ppb	61.29	1.17%
As 188.979†	915.4	513.35	ug/L	1.852	513.35	ppb	1.852	0.36%
B 249.677†	18089.6	504.77	ug/L	9.800	504.77	ppb	9.800	1.94%
Ba 233.527†	55814.5	522.60	ug/L	7.423	522.60	ppb	7.423	1.42%
Be 313.107†	1182457.6	511.48	ug/L	0.575	511.48	ppb	0.575	0.11%
Ca 317.933Radial†	1298.1	5151.6	ug/L	38.73	5151.6	ppb	38.73	0.75%
Cd 226.502†	35092.0	507.17	ug/L	6.355	507.17	ppb	6.355	1.25%
Co 228.616†	19850.9	514.88	ug/L	6.321	514.88	ppb	6.321	1.23%
Cr 267.716†	40058.6	523.25	ug/L	6.560	523.25	ppb	6.560	1.25%
Cu 324.752†	165195.7	531.60	ug/L	10.624	531.60	ppb	10.624	2.00%
Fe 238.204 Radial†	189.6	5285.7	ug/L	65.02	5285.7	ppb	65.02	1.23%
K 766.490 Radial†	10858.0	4965.8	ug/L	48.16	4965.8	ppb	48.16	0.97%

Mg 279.077 IEC†	53.3	5169.7	ug/L	69.04	5169.7	ppb	69.04	1.34%
Mn 257.610†	397097.2	520.67	ug/L	0.866	520.67	ppb	0.866	0.17%
Mo 202.031†	5949.0	513.94	ug/L	1.763	513.94	ppb	1.763	0.34%
Na 589.592 Radial†	16269.8	5433.4	ug/L	52.62	5433.4	ppb	52.62	0.97%
Ni 231.604†	16971.3	534.61	ug/L	6.253	534.61	ppb	6.253	1.17%
P 214.914†	788.1	495.02	ug/L	3.151	495.02	ppb	3.151	0.64%
Pb 220.353†	3284.3	510.02	ug/L	1.395	510.02	ppb	1.395	0.27%
S 181.975 Axial†	2873.7	5124.6	ug/L	17.97	5124.6	ppb	17.97	0.35%
Sb 206.836†	1321.9	566.51	ug/L	0.769	566.51	ppb	0.769	0.14%
Se 196.026†	621.5	523.24	ug/L	1.554	523.24	ppb	1.554	0.30%
Si 251.611†	137942.4	5108.4	ug/L	79.66	5108.4	ppb	79.66	1.56%
Sn 189.927†	2330.4	530.15	ug/L	1.295	530.15	ppb	1.295	0.24%
Sr 421.552†	55449.3	549.80	ug/L	5.931	549.80	ppb	5.931	1.08%
Ti 334.940†	302712.5	514.33	ug/L	8.466	514.33	ppb	8.466	1.65%
Tl 190.801†	1339.3	523.00	ug/L	3.910	523.00	ppb	3.910	0.75%
U 409.014†	19174.1	558.16	ug/L	12.205	558.16	ppb	12.205	2.19%
V 292.402†	67609.4	534.70	ug/L	7.578	534.70	ppb	7.578	1.42%
Zn 213.857†	42719.8	513.42	ug/L	6.868	513.42	ppb	6.868	1.34%
SiO2†	138883.0	10896	ug/L	158.9	10896	ppb	158.9	1.46%

Sequence No.: 10
Sample ID: 1202042570|952949|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 3/10/2010 12:00:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202042570|952949|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3227.8	3227.8	96.3	%			12:02:49
1	Y RADIAL	2620.7	2620.7	95.53	%			12:02:49
1	Al 396.153Radial†	-54.0	4.0	8.5734	ug/L	8.5734	ppb	12:02:49
1	Ca 317.933Radial†	14.3	4.6	18.351	ug/L	18.351	ppb	12:02:49
1	Fe 238.204 Radial†	8.2	-0.1	-2.7391	ug/L	-2.7391	ppb	12:02:49
1	K 766.490 Radial†	1934.4	-106.6	-48.800	ug/L	-48.800	ppb	12:02:29
1	Mg 279.077 IEC†	-0.4	-0.9	-86.474	ug/L	-86.474	ppb	12:02:49
1	Na 589.592 Radial†	-708.7	47.0	15.698	ug/L	15.698	ppb	12:02:29
1	Sr 421.552†	28.8	-5.8	-0.0578	ug/L	-0.0578	ppb	12:02:29
1	Sc 361.383	814177.8	814177.8	97.536	%			12:03:46
1	Y 371.029	696076.4	696076.4	97.263	%			12:03:46
1	Ag 328.068†	153.4	-1.8	-0.0102	ug/L	-0.0102	ppb	12:03:46
1	As 188.979†	-20.6	-5.1	-2.8535	ug/L	-2.8535	ppb	12:04:06
1	B 249.677†	-228.3	-143.8	-4.0309	ug/L	-4.0309	ppb	12:04:06
1	Ba 233.527†	22.5	30.3	0.2830	ug/L	0.2830	ppb	12:04:06
1	Be 313.107†	-3498.0	26.2	0.0117	ug/L	0.0117	ppb	12:03:46
1	Cd 226.502†	-138.9	-0.8	-0.0110	ug/L	-0.0110	ppb	12:04:06
1	Co 228.616†	-49.3	-6.9	-0.1797	ug/L	-0.1797	ppb	12:04:06
1	Cr 267.716†	82.1	18.5	0.2407	ug/L	0.2407	ppb	12:04:06
1	Cu 324.752†	6404.6	496.0	1.5955	ug/L	1.5955	ppb	12:03:46
1	Mn 257.610†	534.4	158.2	0.2106	ug/L	0.2106	ppb	12:04:06
1	Mo 202.031†	17.1	3.8	0.3249	ug/L	0.3249	ppb	12:04:06
1	Ni 231.604†	92.5	41.8	1.3188	ug/L	1.3188	ppb	12:04:06
1	P 214.914†	180.1	9.3	6.7180	ug/L	6.7180	ppb	12:04:06
1	Pb 220.353†	-33.5	9.6	1.4873	ug/L	1.4873	ppb	12:04:06
1	S 181.975 Axial†	30.9	0.8	1.4457	ug/L	1.4457	ppb	12:04:06
1	Sb 206.836†	17.6	-10.4	-4.3192	ug/L	-4.3192	ppb	12:04:06
1	Se 196.026†	-13.5	5.4	4.3768	ug/L	4.3768	ppb	12:04:06
1	Si 251.611†	551.5	113.1	4.1880	ug/L	4.1880	ppb	12:04:06
1	Sn 189.927†	7.5	-0.2	-0.0364	ug/L	-0.0364	ppb	12:04:06
1	Ti 334.940†	-834.5	104.7	0.1870	ug/L	0.1870	ppb	12:03:46
1	Tl 190.801†	-16.0	14.6	5.6809	ug/L	5.6809	ppb	12:04:06
1	U 409.014†	-1924.1	30.4	0.8878	ug/L	0.8878	ppb	12:03:46
1	V 292.402†	-1187.7	29.0	0.2312	ug/L	0.2312	ppb	12:03:46
1	Zn 213.857†	793.1	310.7	3.7592	ug/L	3.7592	ppb	12:04:06
1	SiO2†	540.3	75.4	5.9177	ug/L	5.9177	ppb	12:05:17
2	Sc Radial	3234.0	3234.0	96.5	%			12:03:14
2	Y RADIAL	2633.2	2633.2	95.99	%			12:03:14
2	Al 396.153Radial†	-59.3	-1.4	-3.0851	ug/L	-3.0851	ppb	12:03:14
2	Ca 317.933Radial†	15.5	5.8	23.018	ug/L	23.018	ppb	12:03:14
2	Fe 238.204 Radial†	8.5	0.2	4.7384	ug/L	4.7384	ppb	12:03:14
2	K 766.490 Radial†	1989.1	-53.7	-24.593	ug/L	-24.593	ppb	12:02:54
2	Mg 279.077 IEC†	-0.8	-1.2	-120.59	ug/L	-120.59	ppb	12:03:14
2	Na 589.592 Radial†	-729.2	27.1	9.0597	ug/L	9.0597	ppb	12:02:54
2	Sr 421.552†	26.9	-7.8	-0.0777	ug/L	-0.0777	ppb	12:02:54
2	Sc 361.383	804354.1	804354.1	96.359	%			12:04:11
2	Y 371.029	686622.1	686622.1	95.942	%			12:04:11
2	Ag 328.068†	122.4	-32.1	-0.1588	ug/L	-0.1588	ppb	12:04:11
2	As 188.979†	-16.1	-0.7	-0.4098	ug/L	-0.4098	ppb	12:04:31
2	B 249.677†	-232.5	-151.0	-4.2342	ug/L	-4.2342	ppb	12:04:31
2	Ba 233.527†	19.5	27.4	0.2552	ug/L	0.2552	ppb	12:04:31
2	Be 313.107†	-3468.3	13.2	0.0057	ug/L	0.0057	ppb	12:04:11
2	Cd 226.502†	-137.5	-1.1	-0.0167	ug/L	-0.0167	ppb	12:04:31
2	Co 228.616†	-44.4	-2.5	-0.0636	ug/L	-0.0636	ppb	12:04:31
2	Cr 267.716†	70.9	7.8	0.1038	ug/L	0.1038	ppb	12:04:31
2	Cu 324.752†	6275.6	442.3	1.4261	ug/L	1.4261	ppb	12:04:11
2	Mn 257.610†	534.6	165.1	0.2218	ug/L	0.2218	ppb	12:04:31
2	Mo 202.031†	17.2	4.1	0.3550	ug/L	0.3550	ppb	12:04:31
2	Ni 231.604†	80.5	30.5	0.9615	ug/L	0.9615	ppb	12:04:31

2	P 214.914†	174.5	5.7	4.0314	ug/L	4.0314 ppb	12:04:31
2	Pb 220.353†	-63.4	-21.8	-3.3810	ug/L	-3.3810 ppb	12:04:31
2	S 181.975 Axial†	32.8	3.1	5.6157	ug/L	5.6157 ppb	12:04:31
2	Sb 206.836†	20.1	-7.6	-3.1518	ug/L	-3.1518 ppb	12:04:31
2	Se 196.026†	-16.6	2.0	1.6364	ug/L	1.6364 ppb	12:04:31
2	Si 251.611†	534.9	102.7	3.8044	ug/L	3.8044 ppb	12:04:31
2	Sn 189.927†	8.1	0.6	0.1368	ug/L	0.1368 ppb	12:04:31
2	Ti 334.940†	-926.7	-1.5	0.0124	ug/L	0.0124 ppb	12:04:11
2	Tl 190.801†	-26.8	3.3	1.2667	ug/L	1.2667 ppb	12:04:31
2	U 409.014†	-2085.2	-160.9	-4.6982	ug/L	-4.6982 ppb	12:04:11
2	V 292.402†	-1256.8	-57.5	-0.4562	ug/L	-0.4562 ppb	12:04:11
2	Zn 213.857†	794.4	322.0	3.8981	ug/L	3.8981 ppb	12:04:31
2	SiO2†	540.1	82.0	6.4329	ug/L	6.4329 ppb	12:05:37
3	Sc Radial	3254.8	3254.8	97.1	%		12:03:39
3	Y RADIAL	2640.0	2640.0	96.24	%		12:03:39
3	Al 396.153Radial†	-63.5	-5.3	-11.490	ug/L	-11.490 ppb	12:03:39
3	Ca 317.933Radial†	18.2	8.5	33.907	ug/L	33.907 ppb	12:03:39
3	Fe 238.204 Radial†	8.0	-0.4	-10.013	ug/L	-10.013 ppb	12:03:39
3	K 766.490 Radial†	2029.1	-25.7	-11.802	ug/L	-11.802 ppb	12:03:19
3	Mg 279.077 IEC†	2.1	1.7	165.33	ug/L	165.33 ppb	12:03:39
3	Na 589.592 Radial†	-733.9	27.1	9.0611	ug/L	9.0611 ppb	12:03:19
3	Sr 421.552†	59.2	25.3	0.2503	ug/L	0.2503 ppb	12:03:19
3	Sc 361.383	815827.3	815827.3	97.734	%		12:04:36
3	Y 371.029	696395.9	696395.9	97.308	%		12:04:36
3	Ag 328.068†	164.7	9.5	0.0434	ug/L	0.0434 ppb	12:04:36
3	As 188.979†	-20.8	-5.3	-2.9305	ug/L	-2.9305 ppb	12:04:56
3	B 249.677†	-232.2	-147.4	-4.1303	ug/L	-4.1303 ppb	12:04:56
3	Ba 233.527†	25.0	32.8	0.3053	ug/L	0.3053 ppb	12:04:56
3	Be 313.107†	-3436.4	96.4	0.0419	ug/L	0.0419 ppb	12:04:36
3	Cd 226.502†	-131.1	7.5	0.1098	ug/L	0.1098 ppb	12:04:56
3	Co 228.616†	-50.4	-8.0	-0.2071	ug/L	-0.2071 ppb	12:04:56
3	Cr 267.716†	75.9	11.9	0.1544	ug/L	0.1544 ppb	12:04:56
3	Cu 324.752†	6350.6	427.4	1.3752	ug/L	1.3752 ppb	12:04:36
3	Mn 257.610†	520.2	142.6	0.1792	ug/L	0.1792 ppb	12:04:56
3	Mo 202.031†	13.9	0.5	0.0387	ug/L	0.0387 ppb	12:04:56
3	Ni 231.604†	87.0	36.0	1.1352	ug/L	1.1352 ppb	12:04:56
3	P 214.914†	182.0	10.8	7.9144	ug/L	7.9144 ppb	12:04:56
3	Pb 220.353†	-49.1	-6.3	-0.9775	ug/L	-0.9775 ppb	12:04:56
3	S 181.975 Axial†	38.1	8.1	14.472	ug/L	14.472 ppb	12:04:56
3	Sb 206.836†	18.9	-9.1	-3.7756	ug/L	-3.7756 ppb	12:04:56
3	Se 196.026†	-25.5	-6.9	-5.6516	ug/L	-5.6516 ppb	12:04:56
3	Si 251.611†	544.9	105.1	3.8965	ug/L	3.8965 ppb	12:04:56
3	Sn 189.927†	7.0	-0.7	-0.1526	ug/L	-0.1526 ppb	12:04:56
3	Ti 334.940†	-859.6	80.8	0.1284	ug/L	0.1284 ppb	12:04:36
3	Tl 190.801†	-24.3	6.2	2.4224	ug/L	2.4224 ppb	12:04:56
3	U 409.014†	-1968.0	-10.5	-0.3056	ug/L	-0.3056 ppb	12:04:36
3	V 292.402†	-1254.2	-36.5	-0.2805	ug/L	-0.2805 ppb	12:04:36
3	Zn 213.857†	794.1	310.1	3.7548	ug/L	3.7548 ppb	12:04:56
3	SiO2†	577.9	112.8	8.8621	ug/L	8.8621 ppb	12:05:57

Mean Data: 1202042570|952949|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	811453.1	97.210	%	0.7431				0.76%
Sc Radial	3238.9	96.7	%	0.42				0.44%
Y 371.029	693031.5	96.837	%	0.7759				0.80%
Y RADIAL	2631.3	95.92	%	0.357				0.37%
Ag 328.068†	-8.1	-0.0419	ug/L	0.10479	-0.0419	ppb	0.10479	250.37%
Al 396.153Radial†	-0.9	-2.0006	ug/L	10.07564	-2.0006	ppb	10.07564	503.62%
As 188.979†	-3.7	-2.0646	ug/L	1.43362	-2.0646	ppb	1.43362	69.44%
B 249.677†	-147.4	-4.1318	ug/L	0.10168	-4.1318	ppb	0.10168	2.46%
Ba 233.527†	30.2	0.2812	ug/L	0.02513	0.2812	ppb	0.02513	8.94%
Be 313.107†	45.3	0.0198	ug/L	0.01942	0.0198	ppb	0.01942	98.14%
Ca 317.933Radial†	6.3	25.092	ug/L	7.9825	25.092	ppb	7.9825	31.81%
Cd 226.502†	1.8	0.0274	ug/L	0.07143	0.0274	ppb	0.07143	260.96%
Co 228.616†	-5.8	-0.1501	ug/L	0.07618	-0.1501	ppb	0.07618	50.74%
Cr 267.716†	12.7	0.1663	ug/L	0.06919	0.1663	ppb	0.06919	41.61%
Cu 324.752†	455.2	1.4656	ug/L	0.11534	1.4656	ppb	0.11534	7.87%
Fe 238.204 Radial†	-0.1	-2.6711	ug/L	7.37574	-2.6711	ppb	7.37574	276.13%
K 766.490 Radial†	-62.0	-28.399	ug/L	18.7904	-28.399	ppb	18.7904	66.17%

Mg 279.077 IEC†	-0.1	-13.913	ug/L	156.1614	-13.913	ppb	156.1614 >999.9%
Mn 257.610†	155.3	0.2039	ug/L	0.02211	0.2039	ppb	0.02211 10.85%
Mo 202.031†	2.8	0.2395	ug/L	0.17454	0.2395	ppb	0.17454 72.87%
Na 589.592 Radial†	33.8	11.273	ug/L	3.8324	11.273	ppb	3.8324 34.00%
Ni 231.604†	36.1	1.1385	ug/L	0.17869	1.1385	ppb	0.17869 15.70%
P 214.914†	8.6	6.2212	ug/L	1.98859	6.2212	ppb	1.98859 31.96%
Pb 220.353†	-6.2	-0.9571	ug/L	2.43423	-0.9571	ppb	2.43423 254.34%
S 181.975 Axial†	4.0	7.1777	ug/L	6.65204	7.1777	ppb	6.65204 92.68%
Sb 206.836†	-9.1	-3.7489	ug/L	0.58418	-3.7489	ppb	0.58418 15.58%
Se 196.026†	0.2	0.1205	ug/L	5.18320	0.1205	ppb	5.18320 >999.9%
Si 251.611†	107.0	3.9630	ug/L	0.20022	3.9630	ppb	0.20022 5.05%
Sn 189.927†	-0.1	-0.0174	ug/L	0.14564	-0.0174	ppb	0.14564 836.05%
Sr 421.552†	3.9	0.0383	ug/L	0.18386	0.0383	ppb	0.18386 480.32%
Ti 334.940†	61.3	0.1093	ug/L	0.08884	0.1093	ppb	0.08884 81.31%
Tl 190.801†	8.0	3.1233	ug/L	2.28905	3.1233	ppb	2.28905 73.29%
U 409.014†	-47.0	-1.3720	ug/L	2.94174	-1.3720	ppb	2.94174 214.41%
V 292.402†	-21.7	-0.1685	ug/L	0.35711	-0.1685	ppb	0.35711 211.90%
Zn 213.857†	314.2	3.8040	ug/L	0.08148	3.8040	ppb	0.08148 2.14%
SiO2†	90.1	7.0709	ug/L	1.57249	7.0709	ppb	1.57249 22.24%

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/10/2010 12:43:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3447.3	3447.3	103	%			12:45:47
1	Y RADIAL	2809.9	2809.9	102.4	%			12:45:47
1	Al 396.153Radial†	2295.0	2290.6	4898.4	ug/L	4898.4	ppb	12:45:27
1	Ca 317.933Radial†	1274.5	1228.5	4875.2	ug/L	4875.2	ppb	12:45:47
1	Fe 238.204 Radial†	193.9	179.8	5012.5	ug/L	5012.5	ppb	12:45:47
1	K 766.490 Radial†	12865.5	10389.7	4749.7	ug/L	4749.7	ppb	12:45:27
1	Mg 279.077 IEC†	53.3	51.4	4984.9	ug/L	4984.9	ppb	12:45:47
1	Na 589.592 Radial†	30868.3	30783.7	10280	ug/L	10280	ppb	12:45:27
1	Sr 421.552†	53795.2	52248.3	518.06	ug/L	518.06	ppb	12:45:27
1	Sc 361.383	837594.9	837594.9	100.34	%			12:46:44
1	Y 371.029	708929.3	708929.3	99.059	%			12:46:44
1	Ag 328.068†	100045.3	99545.8	506.02	ug/L	506.02	ppb	12:46:49
1	As 188.979†	879.3	892.3	500.25	ug/L	500.25	ppb	12:47:09
1	B 249.677†	17381.7	17412.7	485.86	ug/L	485.86	ppb	12:46:49
1	Ba 233.527†	53541.6	53366.6	499.66	ug/L	499.66	ppb	12:46:49
1	Be 313.107†	1161276.7	1160937.9	502.13	ug/L	502.13	ppb	12:46:44
1	Cd 226.502†	34511.9	34536.1	499.14	ug/L	499.14	ppb	12:46:49
1	Co 228.616†	19589.7	19566.6	507.53	ug/L	507.53	ppb	12:46:49
1	Cr 267.716†	38476.2	38279.6	500.01	ug/L	500.01	ppb	12:46:49
1	Cu 324.752†	161478.8	154858.9	498.34	ug/L	498.34	ppb	12:46:49
1	Mn 257.610†	382468.2	380777.1	499.27	ug/L	499.27	ppb	12:46:44
1	Mo 202.031†	5851.7	5818.0	502.62	ug/L	502.62	ppb	12:47:09
1	Ni 231.604†	16200.7	16092.5	506.91	ug/L	506.91	ppb	12:46:49
1	P 214.914†	3502.0	3314.7	2420.5	ug/L	2420.5	ppb	12:47:09
1	Pb 220.353†	3237.0	3269.9	507.74	ug/L	507.74	ppb	12:47:09
1	S 181.975 Axial†	581.3	548.4	977.29	ug/L	977.29	ppb	12:47:09
1	Sb 206.836†	1256.9	1224.1	525.39	ug/L	525.39	ppb	12:47:09
1	Se 196.026†	610.1	627.2	527.05	ug/L	527.05	ppb	12:47:09
1	Si 251.611†	67680.7	66998.1	2478.0	ug/L	2478.0	ppb	12:46:49
1	Sn 189.927†	2239.1	2223.6	505.86	ug/L	505.86	ppb	12:47:09
1	Ti 334.940†	288331.3	288310.5	489.86	ug/L	489.86	ppb	12:46:49
1	Tl 190.801†	1275.4	1302.2	508.39	ug/L	508.39	ppb	12:47:09
1	U 409.014†	15758.4	17707.9	515.43	ug/L	515.43	ppb	12:46:49
1	V 292.402†	62893.9	63926.6	505.78	ug/L	505.78	ppb	12:46:49
1	Zn 213.857†	41895.5	41250.5	495.86	ug/L	495.86	ppb	12:46:49
1	SiO2†	67684.0	66975.2	5247.5	ug/L	5247.5	ppb	12:48:17
2	Sc Radial	3332.8	3332.8	99.5	%			12:46:12
2	Y RADIAL	2712.3	2712.3	98.87	%			12:46:12
2	Al 396.153Radial†	2265.0	2337.0	4998.6	ug/L	4998.6	ppb	12:45:52
2	Ca 317.933Radial†	1270.3	1266.8	5027.6	ug/L	5027.6	ppb	12:46:12
2	Fe 238.204 Radial†	193.6	186.0	5185.7	ug/L	5185.7	ppb	12:46:12
2	K 766.490 Radial†	12755.3	10708.3	4895.4	ug/L	4895.4	ppb	12:45:52
2	Mg 279.077 IEC†	53.8	53.6	5201.8	ug/L	5201.8	ppb	12:46:12
2	Na 589.592 Radial†	30200.8	31143.1	10400	ug/L	10400	ppb	12:45:52
2	Sr 421.552†	52985.8	53230.2	527.80	ug/L	527.80	ppb	12:45:52
2	Sc 361.383	850981.6	850981.6	101.95	%			12:47:15
2	Y 371.029	719875.8	719875.8	100.59	%			12:47:15
2	Ag 328.068†	100178.9	98108.4	498.79	ug/L	498.79	ppb	12:47:20
2	As 188.979†	891.0	889.9	498.95	ug/L	498.95	ppb	12:47:40
2	B 249.677†	17546.3	17301.7	482.73	ug/L	482.73	ppb	12:47:20
2	Ba 233.527†	53798.0	52778.7	494.16	ug/L	494.16	ppb	12:47:20
2	Be 313.107†	1181827.9	1162891.2	502.96	ug/L	502.96	ppb	12:47:15
2	Cd 226.502†	34787.0	34264.8	495.19	ug/L	495.19	ppb	12:47:20
2	Co 228.616†	19758.7	19425.3	503.86	ug/L	503.86	ppb	12:47:20
2	Cr 267.716†	38612.7	37810.2	493.89	ug/L	493.89	ppb	12:47:20
2	Cu 324.752†	162127.4	152963.5	492.26	ug/L	492.26	ppb	12:47:20
2	Mn 257.610†	389212.6	381396.8	500.09	ug/L	500.09	ppb	12:47:15
2	Mo 202.031†	5845.6	5720.3	494.20	ug/L	494.20	ppb	12:47:40
2	Ni 231.604†	16267.5	15904.1	500.98	ug/L	500.98	ppb	12:47:20

2	P 214.914†	3487.4	3245.5	2369.0 ug/L	2369.0 ppb	12:47:40
2	Pb 220.353†	3220.3	3202.8	497.33 ug/L	497.33 ppb	12:47:40
2	S 181.975 Axial†	581.0	539.1	960.55 ug/L	960.55 ppb	12:47:40
2	Sb 206.836†	1257.9	1205.4	517.33 ug/L	517.33 ppb	12:47:40
2	Se 196.026†	607.5	615.1	517.64 ug/L	517.64 ppb	12:47:40
2	Si 251.611†	68139.3	66386.8	2455.4 ug/L	2455.4 ppb	12:47:20
2	Sn 189.927†	2241.6	2191.0	498.47 ug/L	498.47 ppb	12:47:40
2	Ti 334.940†	289226.5	284668.3	483.68 ug/L	483.68 ppb	12:47:20
2	Tl 190.801†	1269.1	1275.9	498.19 ug/L	498.19 ppb	12:47:40
2	U 409.014†	15529.9	17236.7	501.66 ug/L	501.66 ppb	12:47:20
2	V 292.402†	63031.2	63075.4	498.97 ug/L	498.97 ppb	12:47:20
2	Zn 213.857†	42190.9	40883.5	491.42 ug/L	491.42 ppb	12:47:20
2	SiO2†	68377.9	66594.7	5217.8 ug/L	5217.8 ppb	12:48:22
3	Sc Radial	3345.8	3345.8	99.9 %		12:46:37
3	Y RADIAL	2723.7	2723.7	99.29 %		12:46:37
3	Al 396.153Radial†	2288.0	2351.2	5028.9 ug/L	5028.9 ppb	12:46:17
3	Ca 317.933Radial†	1271.6	1263.1	5012.9 ug/L	5012.9 ppb	12:46:37
3	Fe 238.204 Radial†	192.8	184.5	5142.3 ug/L	5142.3 ppb	12:46:37
3	K 766.490 Radial†	12736.8	10639.9	4864.1 ug/L	4864.1 ppb	12:46:17
3	Mg 279.077 IEC†	53.2	52.8	5124.5 ug/L	5124.5 ppb	12:46:37
3	Na 589.592 Radial†	30353.7	31178.1	10412 ug/L	10412 ppb	12:46:17
3	Sr 421.552†	53132.5	53169.9	527.20 ug/L	527.20 ppb	12:46:17
3	Sc 361.383	846032.5	846032.5	101.35 %		12:47:46
3	Y 371.029	715497.1	715497.1	99.977 %		12:47:46
3	Ag 328.068†	101484.4	99971.4	508.22 ug/L	508.22 ppb	12:47:51
3	As 188.979†	892.3	896.4	502.59 ug/L	502.59 ppb	12:48:11
3	B 249.677†	17795.1	17647.9	492.41 ug/L	492.41 ppb	12:47:51
3	Ba 233.527†	54382.3	53663.9	502.45 ug/L	502.45 ppb	12:47:51
3	Be 313.107†	1175567.8	1163496.1	503.25 ug/L	503.25 ppb	12:47:46
3	Cd 226.502†	35180.7	34852.9	503.71 ug/L	503.71 ppb	12:47:51
3	Co 228.616†	20013.1	19789.7	513.30 ug/L	513.30 ppb	12:47:51
3	Cr 267.716†	38955.1	38369.6	501.20 ug/L	501.20 ppb	12:47:51
3	Cu 324.752†	164310.9	156048.3	502.18 ug/L	502.18 ppb	12:47:51
3	Mn 257.610†	387610.2	382049.1	500.94 ug/L	500.94 ppb	12:47:46
3	Mo 202.031†	5840.4	5748.7	496.65 ug/L	496.65 ppb	12:48:11
3	Ni 231.604†	16454.7	16182.1	509.73 ug/L	509.73 ppb	12:47:51
3	P 214.914†	3488.3	3266.3	2382.9 ug/L	2382.9 ppb	12:48:11
3	Pb 220.353†	3212.0	3213.1	498.93 ug/L	498.93 ppb	12:48:11
3	S 181.975 Axial†	576.6	538.0	958.68 ug/L	958.68 ppb	12:48:11
3	Sb 206.836†	1254.1	1208.9	518.89 ug/L	518.89 ppb	12:48:11
3	Se 196.026†	599.2	610.4	513.75 ug/L	513.75 ppb	12:48:11
3	Si 251.611†	68910.9	67539.1	2498.1 ug/L	2498.1 ppb	12:47:51
3	Sn 189.927†	2245.1	2207.4	502.18 ug/L	502.18 ppb	12:48:11
3	Ti 334.940†	293034.2	290084.8	492.88 ug/L	492.88 ppb	12:47:51
3	Tl 190.801†	1273.4	1287.5	502.71 ug/L	502.71 ppb	12:48:11
3	U 409.014†	15863.8	17655.3	513.87 ug/L	513.87 ppb	12:47:51
3	V 292.402†	63853.3	64248.1	508.18 ug/L	508.18 ppb	12:47:51
3	Zn 213.857†	42612.2	41541.2	499.34 ug/L	499.34 ppb	12:47:51
3	SiO2†	67745.2	66362.8	5199.5 ug/L	5199.5 ppb	12:48:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844869.7	101.21	%	0.811				0.80%
Sc Radial	3375.3	101	%	1.9				1.86%
Y 371.029	714767.4	99.875	%	0.7699				0.77%
Y RADIAL	2748.6	100.2	%	1.95				1.94%
Ag 328.068†	99208.5	504.34	ug/L	4.931	504.34	ppb	4.931	0.98%
QC value within limits for Ag 328.068 Recovery = 100.87%								
Al 396.153Radial†	2326.2	4975.3	ug/L	68.31	4975.3	ppb	68.31	1.37%
QC value within limits for Al 396.153Radial Recovery = 99.51%								
As 188.979†	892.9	500.60	ug/L	1.846	500.60	ppb	1.846	0.37%
QC value within limits for As 188.979 Recovery = 100.12%								
B 249.677†	17454.1	487.00	ug/L	4.942	487.00	ppb	4.942	1.01%
QC value within limits for B 249.677 Recovery = 97.40%								
Ba 233.527†	53269.7	498.76	ug/L	4.216	498.76	ppb	4.216	0.85%
QC value within limits for Ba 233.527 Recovery = 99.75%								
Be 313.107†	1162441.8	502.78	ug/L	0.577	502.78	ppb	0.577	0.11%
QC value within limits for Be 313.107 Recovery = 100.56%								
Ca 317.933Radial†	1252.8	4971.9	ug/L	84.03	4971.9	ppb	84.03	1.69%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.44%
Cd 226.502†            34551.2      499.35 ug/L         4.261      499.35 ppb          4.261   0.85%
   QC value within limits for Cd 226.502  Recovery = 99.87%
Co 228.616†            19593.8      508.23 ug/L         4.758      508.23 ppb          4.758   0.94%
   QC value within limits for Co 228.616  Recovery = 101.65%
Cr 267.716†            38153.1      498.37 ug/L         3.919      498.37 ppb          3.919   0.79%
   QC value within limits for Cr 267.716  Recovery = 99.67%
Cu 324.752†           154623.6      497.59 ug/L         5.001      497.59 ppb          5.001   1.01%
   QC value within limits for Cu 324.752  Recovery = 99.52%
Fe 238.204 Radial†       183.4      5113.5 ug/L        90.12      5113.5 ppb         90.12   1.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.27%
K 766.490 Radial†      10579.3      4836.4 ug/L        76.74      4836.4 ppb         76.74   1.59%
   QC value within limits for K 766.490 Radial  Recovery = 96.73%
Mg 279.077 IEC†           52.6      5103.7 ug/L       109.91      5103.7 ppb        109.91   2.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.07%
Mn 257.610†           381407.7      500.10 ug/L         0.837      500.10 ppb          0.837   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.02%
Mo 202.031†             5762.3      497.82 ug/L         4.333      497.82 ppb          4.333   0.87%
   QC value within limits for Mo 202.031  Recovery = 99.56%
Na 589.592 Radial†     31034.9       10364 ug/L          72.9       10364 ppb           72.9   0.70%
   QC value within limits for Na 589.592 Radial  Recovery = 103.64%
Ni 231.604†            16059.6      505.88 ug/L         4.470      505.88 ppb          4.470   0.88%
   QC value within limits for Ni 231.604  Recovery = 101.18%
P 214.914†              3275.5      2390.8 ug/L        26.66      2390.8 ppb         26.66   1.12%
   QC value within limits for P 214.914  Recovery = 95.63%
Pb 220.353†             3228.6      501.33 ug/L         5.607      501.33 ppb          5.607   1.12%
   QC value within limits for Pb 220.353  Recovery = 100.27%
S 181.975 Axial†         541.8      965.51 ug/L        10.246      965.51 ppb         10.246   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 96.55%
Sb 206.836†             1212.8      520.54 ug/L         4.272      520.54 ppb          4.272   0.82%
   QC value within limits for Sb 206.836  Recovery = 104.11%
Se 196.026†              617.6      519.48 ug/L         6.838      519.48 ppb          6.838   1.32%
   QC value within limits for Se 196.026  Recovery = 103.90%
Si 251.611†            66974.6      2477.2 ug/L        21.36      2477.2 ppb         21.36   0.86%
   QC value within limits for Si 251.611  Recovery = 99.09%
Sn 189.927†             2207.3      502.17 ug/L         3.697      502.17 ppb          3.697   0.74%
   QC value within limits for Sn 189.927  Recovery = 100.43%
Sr 421.552†            52882.8      524.35 ug/L         5.456      524.35 ppb          5.456   1.04%
   QC value within limits for Sr 421.552  Recovery = 104.87%
Ti 334.940†           287687.9      488.80 ug/L         4.690      488.80 ppb          4.690   0.96%
   QC value within limits for Ti 334.940  Recovery = 97.76%
Tl 190.801†             1288.5      503.10 ug/L         5.107      503.10 ppb          5.107   1.02%
   QC value within limits for Tl 190.801  Recovery = 100.62%
U 409.014†             17533.3      510.32 ug/L         7.539      510.32 ppb          7.539   1.48%
   QC value within limits for U 409.014  Recovery = 102.06%
V 292.402†             63750.0      504.31 ug/L         4.775      504.31 ppb          4.775   0.95%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†            41225.1      495.54 ug/L         3.968      495.54 ppb          3.968   0.80%
   QC value within limits for Zn 213.857  Recovery = 99.11%
SiO2†                  66644.3      5221.6 ug/L        24.19      5221.6 ppb         24.19   0.46%
   QC value within limits for SiO2  Recovery = 97.65%
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/10/2010 12:50:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3227.9	3227.9	96.3	%			12:52:50
1	Y RADIAL	2653.3	2653.3	96.72	%			12:52:50
1	Al 396.153Radial†	-58.1	-0.3	-0.5576	ug/L	-0.5576	ppb	12:52:50
1	Ca 317.933Radial†	14.0	4.4	17.295	ug/L	17.295	ppb	12:52:50
1	Fe 238.204 Radial†	9.7	1.5	40.644	ug/L	40.644	ppb	12:52:50
1	K 766.490 Radial†	2082.9	47.6	21.782	ug/L	21.782	ppb	12:52:29
1	Mg 279.077 IEC†	2.6	2.2	217.50	ug/L	217.50	ppb	12:52:50
1	Na 589.592 Radial†	-804.1	-52.0	-17.362	ug/L	-17.362	ppb	12:52:29
1	Sr 421.552†	32.9	-1.5	-0.0154	ug/L	-0.0154	ppb	12:52:29
1	Sc 361.383	798976.1	798976.1	95.715	%			12:53:46
1	Y 371.029	684307.5	684307.5	95.618	%			12:53:46
1	Ag 328.068†	107.6	-46.7	-0.2256	ug/L	-0.2256	ppb	12:53:46
1	As 188.979†	-16.5	-1.3	-0.6969	ug/L	-0.6969	ppb	12:54:06
1	B 249.677†	-272.0	-193.9	-5.4440	ug/L	-5.4440	ppb	12:54:06
1	Ba 233.527†	0.1	7.3	0.0681	ug/L	0.0681	ppb	12:54:06
1	Be 313.107†	-3475.4	-18.5	-0.0079	ug/L	-0.0079	ppb	12:53:46
1	Cd 226.502†	-145.2	-10.1	-0.1500	ug/L	-0.1500	ppb	12:54:06
1	Co 228.616†	-32.7	9.4	0.2431	ug/L	0.2431	ppb	12:54:06
1	Cr 267.716†	74.0	11.6	0.1519	ug/L	0.1519	ppb	12:54:06
1	Cu 324.752†	6206.4	413.8	1.3337	ug/L	1.3337	ppb	12:53:46
1	Mn 257.610†	459.8	90.7	0.1140	ug/L	0.1140	ppb	12:54:06
1	Mo 202.031†	17.1	4.1	0.3582	ug/L	0.3582	ppb	12:54:06
1	Ni 231.604†	61.3	11.0	0.3466	ug/L	0.3466	ppb	12:54:06
1	P 214.914†	179.4	12.0	8.8324	ug/L	8.8324	ppb	12:54:06
1	Pb 220.353†	-54.3	-12.8	-1.9848	ug/L	-1.9848	ppb	12:54:06
1	S 181.975 Axial†	30.4	0.9	1.5742	ug/L	1.5742	ppb	12:54:06
1	Sb 206.836†	34.2	7.2	2.9854	ug/L	2.9854	ppb	12:54:06
1	Se 196.026†	-11.8	6.9	5.7418	ug/L	5.7418	ppb	12:54:06
1	Si 251.611†	470.1	38.8	1.4330	ug/L	1.4330	ppb	12:54:06
1	Sn 189.927†	6.1	-1.5	-0.3345	ug/L	-0.3345	ppb	12:54:06
1	Ti 334.940†	-890.5	29.9	0.0351	ug/L	0.0351	ppb	12:53:46
1	Tl 190.801†	-26.1	3.8	1.4922	ug/L	1.4922	ppb	12:54:06
1	U 409.014†	-1897.4	20.8	0.6017	ug/L	0.6017	ppb	12:53:46
1	V 292.402†	-1246.6	-55.7	-0.4303	ug/L	-0.4303	ppb	12:53:46
1	Zn 213.857†	514.8	35.4	0.4194	ug/L	0.4194	ppb	12:54:06
1	SiO2†	479.5	22.5	1.7561	ug/L	1.7561	ppb	12:55:17
2	Sc Radial	3261.6	3261.6	97.3	%			12:53:15
2	Y RADIAL	2668.5	2668.5	97.27	%			12:53:15
2	Al 396.153Radial†	-65.2	-6.9	-14.917	ug/L	-14.917	ppb	12:53:15
2	Ca 317.933Radial†	12.3	2.4	9.4804	ug/L	9.4804	ppb	12:53:15
2	Fe 238.204 Radial†	6.6	-1.8	-51.294	ug/L	-51.294	ppb	12:53:15
2	K 766.490 Radial†	1996.0	-64.1	-29.343	ug/L	-29.343	ppb	12:52:55
2	Mg 279.077 IEC†	-0.2	-0.7	-65.927	ug/L	-65.927	ppb	12:53:15
2	Na 589.592 Radial†	-767.8	-6.2	-2.0548	ug/L	-2.0548	ppb	12:52:55
2	Sr 421.552†	38.7	4.1	0.0405	ug/L	0.0405	ppb	12:52:55
2	Sc 361.383	803411.8	803411.8	96.246	%			12:54:12
2	Y 371.029	687662.4	687662.4	96.087	%			12:54:12
2	Ag 328.068†	80.3	-75.7	-0.3989	ug/L	-0.3989	ppb	12:54:12
2	As 188.979†	-23.7	-8.6	-4.8057	ug/L	-4.8057	ppb	12:54:32
2	B 249.677†	-286.6	-207.5	-5.8090	ug/L	-5.8090	ppb	12:54:32
2	Ba 233.527†	10.6	18.2	0.1692	ug/L	0.1692	ppb	12:54:32
2	Be 313.107†	-3559.4	-85.7	-0.0370	ug/L	-0.0370	ppb	12:54:12
2	Cd 226.502†	-150.1	-14.4	-0.2015	ug/L	-0.2015	ppb	12:54:32
2	Co 228.616†	-41.2	0.7	0.0202	ug/L	0.0202	ppb	12:54:32
2	Cr 267.716†	69.8	6.8	0.0863	ug/L	0.0863	ppb	12:54:32
2	Cu 324.752†	6112.6	280.6	0.8988	ug/L	0.8988	ppb	12:54:12
2	Mn 257.610†	467.8	96.4	0.1239	ug/L	0.1239	ppb	12:54:32
2	Mo 202.031†	14.5	1.3	0.1070	ug/L	0.1070	ppb	12:54:32
2	Ni 231.604†	83.5	33.7	1.0620	ug/L	1.0620	ppb	12:54:32

2	P 214.914†	181.5	13.2	9.8687 ug/L	9.8687 ppb	12:54:32
2	Pb 220.353†	-37.0	5.5	0.8510 ug/L	0.8510 ppb	12:54:32
2	S 181.975 Axial†	28.8	-0.9	-1.6396 ug/L	-1.6396 ppb	12:54:32
2	Sb 206.836†	32.0	4.8	1.9996 ug/L	1.9996 ppb	12:54:32
2	Se 196.026†	-14.4	4.2	3.2841 ug/L	3.2841 ppb	12:54:32
2	Si 251.611†	495.9	62.8	2.3268 ug/L	2.3268 ppb	12:54:32
2	Sn 189.927†	11.2	3.8	0.8645 ug/L	0.8645 ppb	12:54:32
2	Ti 334.940†	-932.2	-8.2	-0.0085 ug/L	-0.0085 ppb	12:54:12
2	Tl 190.801†	-27.5	2.4	0.9494 ug/L	0.9494 ppb	12:54:32
2	U 409.014†	-1842.1	89.3	2.6120 ug/L	2.6120 ppb	12:54:12
2	V 292.402†	-1152.5	49.3	0.3977 ug/L	0.3977 ppb	12:54:12
2	Zn 213.857†	524.1	42.0	0.5099 ug/L	0.5099 ppb	12:54:32
2	SiO2†	497.0	37.9	2.9741 ug/L	2.9741 ppb	12:55:37
3	Sc Radial	3221.5	3221.5	96.2 %		12:53:40
3	Y RADIAL	2624.8	2624.8	95.68 %		12:53:40
3	Al 396.153Radial†	-65.9	-8.5	-18.205 ug/L	-18.205 ppb	12:53:40
3	Ca 317.933Radial†	7.9	-2.0	-7.8044 ug/L	-7.8044 ppb	12:53:40
3	Fe 238.204 Radial†	11.4	3.3	91.002 ug/L	91.002 ppb	12:53:40
3	K 766.490 Radial†	2151.4	123.1	56.337 ug/L	56.337 ppb	12:53:20
3	Mg 279.077 IEC†	2.2	1.8	177.49 ug/L	177.49 ppb	12:53:40
3	Na 589.592 Radial†	-778.8	-27.3	-9.1315 ug/L	-9.1315 ppb	12:53:20
3	Sr 421.552†	45.9	12.0	0.1194 ug/L	0.1194 ppb	12:53:20
3	Sc 361.383	812662.1	812662.1	97.355 %		12:54:37
3	Y 371.029	694778.2	694778.2	97.082 %		12:54:37
3	Ag 328.068†	147.7	-7.4	-0.0131 ug/L	-0.0131 ppb	12:54:37
3	As 188.979†	-14.9	0.7	0.3927 ug/L	0.3927 ppb	12:54:57
3	B 249.677†	-274.2	-191.4	-5.3810 ug/L	-5.3810 ppb	12:54:57
3	Ba 233.527†	18.3	25.9	0.2447 ug/L	0.2447 ppb	12:54:57
3	Be 313.107†	-3483.7	34.1	0.0150 ug/L	0.0150 ppb	12:54:37
3	Cd 226.502†	-143.1	-5.4	-0.0860 ug/L	-0.0860 ppb	12:54:57
3	Co 228.616†	-41.0	1.4	0.0351 ug/L	0.0351 ppb	12:54:57
3	Cr 267.716†	42.7	-21.8	-0.2828 ug/L	-0.2828 ppb	12:54:57
3	Cu 324.752†	6267.4	367.2	1.1841 ug/L	1.1841 ppb	12:54:37
3	Mn 257.610†	453.3	76.0	0.1013 ug/L	0.1013 ppb	12:54:57
3	Mo 202.031†	14.9	1.6	0.1412 ug/L	0.1412 ppb	12:54:57
3	Ni 231.604†	66.5	15.3	0.4815 ug/L	0.4815 ppb	12:54:57
3	P 214.914†	174.0	3.3	2.2345 ug/L	2.2345 ppb	12:54:57
3	Pb 220.353†	-40.5	2.4	0.3485 ug/L	0.3485 ppb	12:54:57
3	S 181.975 Axial†	31.7	1.7	3.0695 ug/L	3.0695 ppb	12:54:57
3	Sb 206.836†	27.7	-0.0	0.0186 ug/L	0.0186 ppb	12:54:57
3	Se 196.026†	-20.6	-1.9	-1.3004 ug/L	-1.3004 ppb	12:54:57
3	Si 251.611†	481.7	42.4	1.5692 ug/L	1.5692 ppb	12:54:57
3	Sn 189.927†	13.7	6.2	1.4031 ug/L	1.4031 ppb	12:54:57
3	Ti 334.940†	-869.3	67.4	0.0971 ug/L	0.0971 ppb	12:54:37
3	Tl 190.801†	-20.9	9.6	3.7413 ug/L	3.7413 ppb	12:54:57
3	U 409.014†	-1805.0	149.1	4.3450 ug/L	4.3450 ppb	12:54:37
3	V 292.402†	-1230.6	-17.3	-0.1347 ug/L	-0.1347 ppb	12:54:37
3	Zn 213.857†	515.9	27.5	0.3149 ug/L	0.3149 ppb	12:54:57
3	SiO2†	498.1	33.2	2.6023 ug/L	2.6023 ppb	12:55:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	805016.7	96.439	%	0.8365				0.87%
Sc Radial	3237.0	96.6	%	0.64				0.67%
Y 371.029	688916.0	96.262	%	0.7471				0.78%
Y RADIAL	2648.9	96.56	%	0.809				0.84%
Ag 328.068†	-43.2	-0.2125	ug/L	0.19325	-0.2125	ppb	0.19325	90.92%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.2	-11.227	ug/L	9.3848	-11.227	ppb	9.3848	83.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.1	-1.7033	ug/L	2.74144	-1.7033	ppb	2.74144	160.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-197.6	-5.5447	ug/L	0.23110	-5.5447	ppb	0.23110	4.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.1	0.1607	ug/L	0.08861	0.1607	ppb	0.08861	55.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-23.3	-0.0100	ug/L	0.02607	-0.0100	ppb	0.02607	261.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.6	6.3237	ug/L	12.84404	6.3237	ppb	12.84404	203.11%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.0     -0.1458 ug/L       0.05786     -0.1458 ppb        0.05786  39.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                3.8      0.0995 ug/L       0.12458      0.0995 ppb        0.12458 125.24%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -1.1     -0.0149 ug/L       0.23434     -0.0149 ppb        0.23434 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              353.9      1.1389 ug/L       0.22094      1.1389 ppb        0.22094  19.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.0     26.784 ug/L       72.1536      26.784 ppb        72.1536 269.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         35.5     16.259 ug/L       43.1062      16.259 ppb        43.1062 265.12%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.1     109.69 ug/L       153.397      109.69 ppb        153.397 139.85%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               87.7      0.1131 ug/L       0.01136      0.1131 ppb        0.01136  10.05%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.3      0.2021 ug/L       0.13622      0.2021 ppb        0.13622  67.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -28.5     -9.5162 ug/L       7.66092     -9.5162 ppb        7.66092  80.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               20.0      0.6300 ug/L       0.38013      0.6300 ppb        0.38013  60.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 9.5      6.9786 ug/L       4.14101      6.9786 ppb        4.14101  59.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.6     -0.2617 ug/L       1.51318     -0.2617 ppb        1.51318 578.11%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.6      1.0013 ug/L       2.40624      1.0013 ppb        2.40624 240.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.0      1.6679 ug/L       1.51099      1.6679 ppb        1.51099  90.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.1      2.5752 ug/L       3.57424      2.5752 ppb        3.57424 138.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               48.0      1.7764 ug/L       0.48158      1.7764 ppb        0.48158  27.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.8      0.6444 ug/L       0.88951      0.6444 ppb        0.88951 138.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                4.9      0.0482 ug/L       0.06773      0.0482 ppb        0.06773 140.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               29.7      0.0412 ug/L       0.05310      0.0412 ppb        0.05310 128.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.3      2.0610 ug/L       1.48033      2.0610 ppb        1.48033  71.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                86.4      2.5195 ug/L       1.87336      2.5195 ppb        1.87336  74.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -7.9     -0.0557 ug/L       0.41961     -0.0557 ppb        0.41961 752.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               35.0      0.4147 ug/L       0.09758      0.4147 ppb        0.09758  23.53%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     31.2      2.4442 ug/L       0.62417      2.4442 ppb        0.62417  25.54%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, March 06, 2010 13:32:50
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.343
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	777.4	777.421	32.664	4.2
	Mg	24.0	15934.1	15934.085	371.700	2.3
	Co	58.9	35574.2	35574.239	200.730	0.6
	Rh	102.9	68380.7	68380.668	232.481	0.3
	In	114.9	94920.3	94920.317	766.720	0.8
	Pb	208.0	38876.8	38876.828	141.511	0.4
⌈>	Ba	137.9	75418.9	75418.899	723.014	1.0
⌊	Ba++	69.0	1393.0	0.018	0.000	0.9
⌈>	Ce	139.9	90618.3	90618.302	250.075	0.3
⌊	CeO	155.9	1395.3	0.015	0.000	1.0
	Bkgd	220.0	9.8	9.800	0.908	9.3

Current Optimization File Data

Current Value	Description
0.89	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current AutoLens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.3	782.7
Co	59	13	6.0	29345.8
In	115	13	7.0	74945.4

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	600	2060	0.732
Be	9.0	9.1	2041	2045	0.731
Mg	24.0	24.0	5671	2075	0.683
Mg	25.0	25.0	5932	2080	0.718
Mg	26.0	26.0	6160	2085	0.695
Co	58.9	59.0	14167	2140	0.683
Rh	102.9	102.9	24863	2230	0.699
In	114.9	114.8	27767	2255	0.730
Ce	139.9	139.9	33849	2310	0.696
Pb	206.0	206.0	49929	2465	0.795
Pb	207.0	207.0	50113	2365	0.759
Pb	208.0	208.0	50424	2550	0.866
U	238.1	238.1	57707	2490	0.800

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, March 07, 2010 08:57:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\Blank.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		107659	
⌊	Pb	208		ug/L		5772	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, March 07, 2010 08:59:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\Standard 1.240

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		109159	109158.884
⌊	Pb	208	10.000	ug/L	1.742	72431	0.610

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, March 07, 2010 09:01:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\Standard 2.241

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		108706	108705.789
⌊	Pb	208	99.983	ug/L	1.647	657753	5.998

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, March 07, 2010 09:03:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 1.242

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		109259	109258.683
⌊	Pb	208	50.950	ug/L	1.426	339740	3.056

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175			101.5		
⌊	Pb	208	101.899				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, March 07, 2010 09:05:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 2.243

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		107378	107377.780
⌊	Pb	208	0.219	ug/L	7.574	7165	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.7			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, March 07, 2010 09:06:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 3.244

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		110533	110533.083
⌊	Pb	208	2.566	ug/L	1.684	22941	0.154

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		102.7			
⌊	Pb	208	128.316				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, March 07, 2010 09:08:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 4.245

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		107109	107108.819
⌊	Pb	208	0.242	ug/L	5.376	7296	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175			99.5		
⌊	Pb	208	127.921				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, March 07, 2010 09:10:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 5.246

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		106853	106852.574
⌊	Pb	208	19.589	ug/L	1.160	131276	1.175

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.3			
⌊	Pb	208	97.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 09:12:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 6.247

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		108128	108128.420
⌊	Pb	208	**52.167**	**ug/L**	0.452	344154	3.129

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.4			
⌊	Pb	208	104.334				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 09:14:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 7.248

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		106017	106017.345
⌊	Pb	208	0.325	ug/L	5.650	7754	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.5			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 09:28:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 6.255

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		108594	108593.619
⌊	Pb	208	51.020	ug/L	1.549	338138	3.060

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.9			
⌊	Pb	208	102.039				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 09:29:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 7.256

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		106673	106672.871
⌊	Pb	208	0.006	ug/L	117.865	5758	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.1			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 09:46:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 6.265

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		106945	106944.550
⌊	Pb	208	50.907	ug/L	0.124	332306	3.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175			99.3		
⌊	Pb	208	101.813				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 09:48:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 7.266

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		104552	104551.913
⌊	Pb	208	-0.164	ug/L	4.646	4578	-0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		97.1			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202042571
Sample Date/Time: Sunday, March 07, 2010 09:50:14
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\1202042571.267

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		105737	105736.593
⌊	Pb	208	-0.121	ug/L	14.479	4902	-0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.2			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202042572
Sample Date/Time: Sunday, March 07, 2010 09:52:02
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\1202042572.268

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		105966	105965.963
⌊	Pb	208	50.965	ug/L	0.689	329646	3.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.4			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246838001
Sample Date/Time: Sunday, March 07, 2010 09:53:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\246838001.269

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		105712	105712.093
⌊	Pb	208	0.002	ug/L	1213.347	5678	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.2			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202042573
Sample Date/Time: Sunday, March 07, 2010 09:59:21
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\1202042573.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		103555	103555.376
⌊	Pb	208	-0.117	ug/L	9.704	4827	-0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		96.2			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202042574
Sample Date/Time: Sunday, March 07, 2010 10:01:13
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\1202042574.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		104948	104948.154
⌊	Pb	208	39.359	ug/L	1.491	253388	2.361

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		97.5			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202042575
Sample Date/Time: Sunday, March 07, 2010 10:03:03
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 952951|5|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\1202042575.274

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		107226	107225.666
⌊	Pb	208	-0.240	ug/L	3.718	4204	-0.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.6			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 10:04:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 6.275

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		106334	106333.669
⌊	Pb	208	51.011	ug/L	1.359	331071	3.060

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175			98.8		
⌊	Pb	208	102.021				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 10:06:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: C:\elandata\Dataset\100306\QC Std 7.276

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		104681	104680.512
⌊	Pb	208	-0.292	ug/L	2.878	3782	-0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		97.2			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, March 06, 2010 12:09:34
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.661
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4777.6	4777.599	78.513	1.6
	Mg	24.0	48634.0	48634.045	234.209	0.5
	Co	58.9	90810.3	90810.329	749.980	0.8
	Rh	102.9	182759.1	182759.120	2080.782	1.1
	In	114.9	251410.0	251410.017	1585.778	0.6
	Pb	208.0	269712.7	269712.731	1579.796	0.6
⌈>	Ba	137.9	240159.5	240159.536	2766.790	1.2
⌊	Ba++	69.0	3561.9	0.015	0.000	2.0
⌈>	Ce	139.9	293604.7	293604.702	1492.439	0.5
⌊	CeO	155.9	6296.5	0.021	0.000	1.8
	Bkgd	220.0	22.2	22.200	3.915	17.6

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.50	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.5	5313.7
Co	59	17	7.3	86868.6
In	115	17	8.0	235041.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	585	2050	0.658
Be	9.0	9.0	2046	2075	0.619
Mg	24.0	24.0	5699	2080	0.646
Mg	25.0	25.0	5927	2080	0.613
Mg	26.0	25.9	6172	2080	0.645
Co	58.9	59.0	14193	2110	0.623
Rh	102.9	102.9	24880	2160	0.639
In	114.9	114.9	27795	2180	0.649
Ce	139.9	139.9	33866	2200	0.642
Pb	206.0	206.0	49948	2295	0.612
Pb	207.0	207.0	50159	2240	0.638
Pb	208.0	208.0	50451	2265	0.700
U	238.1	238.1	57734	2275	0.727

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, March 07, 2010 03:21:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\Blank.718

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		23	
>	Sc	45		ug/L		802830	
	Mn	55		ug/L		1608	
	Cd	111		ug/L		31	
	Cd	114		ug/L		57	
>	In	115		ug/L		230964	
	Sb	121		ug/L		376	
	Sb	123		ug/L		278	
>	Lu	175		ug/L		479311	
	Tl	205		ug/L		3775	
	Pb	208		ug/L		892	
	U	238		ug/L		896	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, March 07, 2010 03:26:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\Standard 1.719

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	3.669	4201	0.005
>	Sc	45		**ug/L**		803589	803588.917
	Mn	55	**10.000**	**ug/L**	1.677	74002	0.090
	Cd	111	**10.000**	**ug/L**	0.492	14477	0.061
	Cd	114		**ug/L**		34085	0.144
>	In	115		**ug/L**		235679	235679.031
	Sb	121	**10.000**	**ug/L**	2.500	49055	0.207
	Sb	123		**ug/L**		38813	0.163
>	Lu	175		**ug/L**		480467	480467.457
	Tl	205	**10.000**	**ug/L**	1.152	224010	0.458
	Pb	208	**10.000**	**ug/L**	0.406	393066	0.816
	U	238	**10.000**	**ug/L**	0.246	537628	1.117

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, March 07, 2010 03:32:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\Standard 2.720

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**100.008**	**ug/L**	0.369	41666	0.052
|>	Sc	45		**ug/L**		794261	794261.422
⌊	Mn	55	**99.982**	**ug/L**	0.223	704278	0.885
⌈	Cd	111	**99.989**	**ug/L**	1.218	140203	0.606
|	Cd	114		**ug/L**		332152	1.436
|>	In	115		**ug/L**		231307	231306.507
|	Sb	121	**100.033**	**ug/L**	1.558	494703	2.137
⌊	Sb	123		**ug/L**		388419	1.678
⌈>	Lu	175		**ug/L**		481650	481650.462
|	Tl	205	**99.841**	**ug/L**	1.819	1905341	3.948
|	Pb	208	**99.861**	**ug/L**	0.410	3448013	7.157
⌊	U	238	**99.814**	**ug/L**	1.141	4527077	9.397

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, March 07, 2010 03:37:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 1.721

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**53.450**	**ug/L**	1.522	21822	0.028
| >	Sc	45		**ug/L**		777988	777988.174
⌊	Mn	55	**53.643**	**ug/L**	1.883	370827	0.475
⌈	Cd	111	**52.416**	**ug/L**	1.408	73136	0.318
|	Cd	114		**ug/L**		172758	0.751
| >	In	115		**ug/L**		230111	230110.807
|	Sb	121	**51.744**	**ug/L**	1.697	254753	1.106
⌊	Sb	123		**ug/L**		199581	0.866
⌈>	Lu	175		**ug/L**		477831	477831.142
|	Tl	205	**53.457**	**ug/L**	1.387	1013831	2.114
|	Pb	208	**55.651**	**ug/L**	0.503	1906672	3.988
⌊	U	238	**55.366**	**ug/L**	1.847	2491494	5.213

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	106.901				
>	Sc	45		96.9			
	Mn	55	107.287				
	Cd	111	104.832				
	Cd	114					
>	In	115		99.6			
	Sb	121	103.489				
	Sb	123					
>	Lu	175		99.7			
	Tl	205	106.914				
	Pb	208	111.302				
	U	238	110.733				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, March 07, 2010 03:42:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 2.722

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.012**	**ug/L**	160.546	27	0.000
>	Sc	45		**ug/L**		751215	751215.217
	Mn	55	**-0.001**	**ug/L**	843.301	1497	-0.000
	Cd	111	**0.000**	**ug/L**	3691.771	29	0.000
	Cd	114		**ug/L**		56	0.000
>	In	115		**ug/L**		219224	219224.308
	Sb	121	**0.188**	**ug/L**	5.686	1236	0.004
	Sb	123		**ug/L**		984	0.003
>	Lu	175		**ug/L**		464354	464354.425
	Tl	205	**0.326**	**ug/L**	0.701	9636	0.013
	Pb	208	**0.000**	**ug/L**	177.601	877	0.000
	U	238	**0.003**	**ug/L**	12.764	1019	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.6			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		94.9			
	Sb	121					
	Sb	123					
>	Lu	175		96.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, March 07, 2010 03:47:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 3.723

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.562**	**ug/L**	16.231	245	0.000
|>	Sc	45		**ug/L**		756500	756500.304
⌊	Mn	55	**5.747**	**ug/L**	1.092	39981	0.051
⌈	Cd	111	**1.081**	**ug/L**	2.576	1496	0.007
|	Cd	114		**ug/L**		3595	0.016
|>	In	115		**ug/L**		223808	223807.850
|	Sb	121	**3.061**	**ug/L**	2.125	15001	0.065
⌊	Sb	123		**ug/L**		11834	0.052
⌈>	Lu	175		**ug/L**		467177	467177.103
|	Tl	205	**1.271**	**ug/L**	0.930	27162	0.050
|	Pb	208	**2.468**	**ug/L**	0.433	83506	0.177
⌊	U	238	**0.286**	**ug/L**	1.494	13469	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	112.487				
>	Sc	45		94.2			
	Mn	55	114.938				
	Cd	111	108.106				
	Cd	114					
>	In	115		96.9			
	Sb	121	102.023				
	Sb	123					
>	Lu	175		97.5			
	Tl	205	127.103				
	Pb	208	123.408				
	U	238	143.196				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, March 07, 2010 03:53:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 4.724

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.108**	**ug/L**	19.702	62	0.000
>	Sc	45		**ug/L**		719742	719742.189
	Mn	55	**5.959**	**ug/L**	1.339	39388	0.053
	Cd	111	**0.547**	**ug/L**	17.431	763	0.003
	Cd	114		**ug/L**		9008	0.040
>	In	115		**ug/L**		221164	221163.582
	Sb	121	**0.040**	**ug/L**	19.458	550	0.001
	Sb	123		**ug/L**		444	0.001
>	Lu	175		**ug/L**		446951	446950.908
	Tl	205	**-0.029**	**ug/L**	28.500	3000	-0.001
	Pb	208	**0.220**	**ug/L**	2.002	7865	0.016
	U	238	**-0.016**	**ug/L**	0.829	172	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.7			
	Mn	55	102.738				
	Cd	111	123.199				
	Cd	114					
>	In	115		95.8			
	Sb	121					
	Sb	123					
>	Lu	175		93.2			
	Tl	205					
	Pb	208	116.193				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, March 07, 2010 03:58:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 5.725

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.416**	**ug/L**	1.310	7133	0.010
>	Sc	45		**ug/L**		698803	698802.901
	Mn	55	**27.277**	**ug/L**	1.292	170053	0.241
	Cd	111	**20.493**	**ug/L**	1.800	26877	0.124
	Cd	114		**ug/L**		71423	0.330
>	In	115		**ug/L**		216158	216157.930
	Sb	121	**21.897**	**ug/L**	0.994	101477	0.468
	Sb	123		**ug/L**		79388	0.366
>	Lu	175		**ug/L**		435319	435319.158
	Tl	205	**21.138**	**ug/L**	3.090	367305	0.836
	Pb	208	**21.959**	**ug/L**	1.038	685846	1.574
	U	238	**24.114**	**ug/L**	0.755	989112	2.270

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	97.079				
>	Sc	45		87.0			
	Mn	55	105.726				
	Cd	111	100.241				
	Cd	114					
>	In	115		93.6			
	Sb	121	109.486				
	Sb	123					
>	Lu	175		90.8			
	Tl	205	105.691				
	Pb	208	108.766				
	U	238	120.571				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 04:03:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 6.726

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**46.902**	**ug/L**	1.588	19731	0.025
|>	Sc	45		**ug/L**		801493	801492.934
⌊	Mn	55	**47.346**	**ug/L**	1.591	337322	0.419
⌈	Cd	111	**45.298**	**ug/L**	1.672	67585	0.275
|	Cd	114		**ug/L**		161464	0.656
|>	In	115		**ug/L**		246045	246045.083
|	Sb	121	**45.853**	**ug/L**	1.393	241424	0.980
⌊	Sb	123		**ug/L**		191921	0.779
⌈>	Lu	175		**ug/L**		506321	506321.471
|	Tl	205	**46.119**	**ug/L**	2.425	927372	1.824
|	Pb	208	**48.887**	**ug/L**	0.621	1774888	3.504
⌊	U	238	**48.012**	**ug/L**	1.464	2289660	4.520

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	93.805				
>	Sc	45		99.8			
	Mn	55	94.692				
	Cd	111	90.596				
	Cd	114					
>	In	115		106.5			
	Sb	121	91.705				
	Sb	123					
>	Lu	175		105.6			
	Tl	205	92.238				
	Pb	208	97.773				
	U	238	96.025				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 04:09:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 7.727

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.016**	**ug/L**	85.791	26	0.000
|>	Sc	45		**ug/L**		698741	698741.412
⌊	Mn	55	**-0.015**	**ug/L**	54.363	1307	-0.000
⌈	Cd	111	**0.007**	**ug/L**	38.678	36	0.000
|	Cd	114		**ug/L**		66	0.000
|>	In	115		**ug/L**		211464	211464.363
|	Sb	121	**0.077**	**ug/L**	8.347	692	0.002
⌊	Sb	123		**ug/L**		552	0.001
⌈>	Lu	175		**ug/L**		444905	444904.852
|	Tl	205	**0.282**	**ug/L**	7.549	8467	0.011
|	Pb	208	**-0.000**	**ug/L**	194.383	813	-0.000
⌊	U	238	**0.004**	**ug/L**	18.294	982	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		87.0			
⌊	Mn	55					
⌈	Cd	111					
|	Cd	114					
|>	In	115		91.6			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		92.8			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, March 07, 2010 04:46:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 8.734

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.266**	**ug/L**	1.577	19380	0.026
>	Sc	45		**ug/L**		734594	734594.317
	Mn	55	**50.981**	**ug/L**	0.132	332860	0.451
	Cd	111	**49.380**	**ug/L**	1.819	67893	0.299
	Cd	114		**ug/L**		161590	0.712
>	In	115		**ug/L**		226757	226757.022
	Sb	121	**49.529**	**ug/L**	0.949	240311	1.058
	Sb	123		**ug/L**		190313	0.838
>	Lu	175		**ug/L**		470513	470513.288
	Tl	205	**50.088**	**ug/L**	2.192	935511	1.981
	Pb	208	**52.620**	**ug/L**	1.399	1775053	3.771
	U	238	**51.937**	**ug/L**	0.965	2301433	4.890

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	100.533				
>	Sc	45		91.5			
	Mn	55	101.962				
	Cd	111	98.760				
	Cd	114					
>	In	115		98.2			
	Sb	121	99.059				
	Sb	123					
>	Lu	175		98.2			
	Tl	205	100.175				
	Pb	208	105.239				
	U	238	103.874				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, March 07, 2010 04:52:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 9.735

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.002**	**ug/L**	925.982	22	0.000
|>	Sc	45		**ug/L**		734401	734401.124
⌊	Mn	55	**-0.021**	**ug/L**	29.908	1334	-0.000
⌈	Cd	111	**0.005**	**ug/L**	83.778	36	0.000
|	Cd	114		**ug/L**		69	0.000
|>	In	115		**ug/L**		224341	224341.195
|	Sb	121	**0.055**	**ug/L**	8.916	630	0.001
⌊	Sb	123		**ug/L**		503	0.001
⌈>	Lu	175		**ug/L**		476335	476334.564
|	Tl	205	**0.516**	**ug/L**	4.885	13475	0.020
|	Pb	208	**-0.000**	**ug/L**	135.695	871	-0.000
⌊	U	238	**0.002**	**ug/L**	50.205	994	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.5			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		97.1			
	Sb	121					
	Sb	123					
>	Lu	175		99.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, March 07, 2010 05:39:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 8.744

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**53.515**	**ug/L**	1.467	19558	0.028
|>	Sc	45		**ug/L**		696359	696358.616
⌊	Mn	55	**52.865**	**ug/L**	0.878	327151	0.468
⌈	Cd	111	**51.422**	**ug/L**	0.870	66673	0.312
|	Cd	114		**ug/L**		157407	0.736
|>	In	115		**ug/L**		213817	213816.844
|	Sb	121	**51.664**	**ug/L**	0.270	236368	1.104
⌊	Sb	123		**ug/L**		186993	0.873
⌈>	Lu	175		**ug/L**		447458	447457.780
|	Tl	205	**47.267**	**ug/L**	3.883	839768	1.869
|	Pb	208	**55.278**	**ug/L**	2.196	1773272	3.962
⌊	U	238	**54.880**	**ug/L**	1.536	2312600	5.167

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	107.030				
>	Sc	45		86.7			
	Mn	55	105.731				
	Cd	111	102.845				
	Cd	114					
>	In	115		92.6			
	Sb	121	103.328				
	Sb	123					
>	Lu	175		93.4			
	Tl	205	94.535				
	Pb	208	110.555				
	U	238	109.760				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, March 07, 2010 05:45:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 9.745

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.019**	**ug/L**	75.526	27	0.000
|>	Sc	45		**ug/L**		685766	685765.608
⌊	Mn	55	**0.002**	**ug/L**	429.550	1385	0.000
⌈	Cd	111	**0.003**	**ug/L**	421.913	31	0.000
|	Cd	114		**ug/L**		64	0.000
|>	In	115		**ug/L**		206240	206240.110
|	Sb	121	**0.069**	**ug/L**	10.129	638	0.001
⌊	Sb	123		**ug/L**		505	0.001
⌈>	Lu	175		**ug/L**		443992	443991.654
|	Tl	205	**1.777**	**ug/L**	1.579	34699	0.070
|	Pb	208	**0.002**	**ug/L**	49.362	904	0.000
⌊	U	238	**0.003**	**ug/L**	43.523	968	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.4			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		89.3			
	Sb	121					
	Sb	123					
>	Lu	175		92.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202042572
Sample Date/Time: Sunday, March 07, 2010 05:55:56
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\1202042572.747

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.657**	**ug/L**	0.530	18792	0.027
>	Sc	45		**ug/L**		693177	693177.051
	Mn	55	**53.178**	**ug/L**	0.456	327576	0.471
	Cd	111	**51.911**	**ug/L**	1.674	63942	0.315
	Cd	114		**ug/L**		150753	0.742
>	In	115		**ug/L**		203132	203132.314
	Sb	121	**54.752**	**ug/L**	1.168	237940	1.170
	Sb	123		**ug/L**		185821	0.914
>	Lu	175		**ug/L**		435750	435749.562
	Tl	205	**42.632**	**ug/L**	6.224	738011	1.686
	Pb	208	**54.721**	**ug/L**	0.591	1709699	3.922
	U	238	**52.467**	**ug/L**	0.644	2153324	4.940

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		86.3			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		87.9			
	Sb	121					
	Sb	123					
>	Lu	175		90.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042573
Sample Date/Time: Sunday, March 07, 2010 06:17:22
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\1202042573.751

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.001**	**ug/L**	2034.779	20	0.000
|>	Sc	45		**ug/L**		678129	678128.981
⌊	Mn	55	**0.221**	**ug/L**	0.970	2685	0.002
⌈	Cd	111	**-0.010**	**ug/L**	129.620	15	-0.000
|	Cd	114		**ug/L**		39	-0.000
|>	In	115		**ug/L**		202364	202363.967
|	Sb	121	**-0.056**	**ug/L**	3.489	85	-0.001
⌊	Sb	123		**ug/L**		69	-0.001
⌈>	Lu	175		**ug/L**		424672	424671.678
|	Tl	205	**0.154**	**ug/L**	9.566	5927	0.006
|	Pb	208	**-0.006**	**ug/L**	10.533	596	-0.000
⌊	U	238	**-0.015**	**ug/L**	3.503	182	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		84.5			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		87.6			
	Sb	121					
	Sb	123					
>	Lu	175		88.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042574
Sample Date/Time: Sunday, March 07, 2010 06:22:43
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\1202042574.752

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.506**	**ug/L**	1.516	17444	0.025
>	Sc	45		**ug/L**		685198	685198.054
	Mn	55	**50.129**	**ug/L**	2.243	305240	0.444
	Cd	111	**10.295**	**ug/L**	2.117	12462	0.062
	Cd	114		**ug/L**		28475	0.143
>	In	115		**ug/L**		199293	199293.390
	Sb	121	**199.107**	**ug/L**	1.718	848110	4.254
	Sb	123		**ug/L**		668597	3.354
>	Lu	175		**ug/L**		428026	428026.313
	Tl	205	**84.541**	**ug/L**	3.818	1434516	3.343
	Pb	208	**42.679**	**ug/L**	0.633	1309988	3.059
	U	238	**51.448**	**ug/L**	1.077	2074000	4.844

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.3			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		86.3			
	Sb	121					
	Sb	123					
>	Lu	175		89.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042575
Sample Date/Time: Sunday, March 07, 2010 06:28:03
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 952951|5|baj
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\1202042575.753

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.005**	**ug/L**	243.015	22	0.000
>	Sc	45		**ug/L**		693081	693081.301
	Mn	55	**0.065**	**ug/L**	18.222	1788	0.001
	Cd	111	**-0.004**	**ug/L**	115.899	23	-0.000
	Cd	114		**ug/L**		31	-0.000
>	In	115		**ug/L**		210791	210790.936
	Sb	121	**-0.045**	**ug/L**	9.375	142	-0.001
	Sb	123		**ug/L**		106	-0.001
>	Lu	175		**ug/L**		449284	449283.809
	Tl	205	**1.279**	**ug/L**	1.476	26264	0.051
	Pb	208	**-0.015**	**ug/L**	3.423	367	-0.001
	U	238	**-0.016**	**ug/L**	3.034	152	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		86.3			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		91.3			
	Sb	121					
	Sb	123					
>	Lu	175		93.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, March 07, 2010 06:33:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 8.754

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**48.192**	**ug/L**	0.971	19120	0.025
|>	Sc	45		**ug/L**		755929	755929.301
⌊	Mn	55	**48.190**	**ug/L**	1.837	323835	0.426
⌈	Cd	111	**46.805**	**ug/L**	1.619	64952	0.284
|	Cd	114		**ug/L**		154031	0.673
|>	In	115		**ug/L**		228850	228849.826
|	Sb	121	**47.104**	**ug/L**	1.273	230677	1.006
⌊	Sb	123		**ug/L**		180626	0.788
⌈>	Lu	175		**ug/L**		486008	486007.643
|	Tl	205	**46.084**	**ug/L**	1.208	889599	1.822
|	Pb	208	**49.677**	**ug/L**	1.292	1731033	3.560
⌊	U	238	**49.474**	**ug/L**	0.747	2264578	4.658

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.383				
>	Sc	45		94.2			
	Mn	55	96.379				
	Cd	111	93.611				
	Cd	114					
>	In	115		99.1			
	Sb	121	94.209				
	Sb	123					
>	Lu	175		101.4			
	Tl	205	92.168				
	Pb	208	99.355				
	U	238	98.948				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, March 07, 2010 06:38:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 9.755

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.007**	**ug/L**	218.894	22	0.000
|>	Sc	45		**ug/L**		676248	676247.532
⌊	Mn	55	**-0.007**	**ug/L**	174.710	1312	-0.000
⌈	Cd	111	**0.004**	**ug/L**	118.724	32	0.000
|	Cd	114		**ug/L**		60	0.000
|>	In	115		**ug/L**		203890	203889.647
|	Sb	121	**0.076**	**ug/L**	12.197	662	0.002
⌊	Sb	123		**ug/L**		510	0.001
⌈>	Lu	175		**ug/L**		438766	438766.188
|	Tl	205	**1.038**	**ug/L**	2.706	21454	0.041
|	Pb	208	**0.002**	**ug/L**	24.127	885	0.000
⌊	U	238	**0.004**	**ug/L**	9.770	979	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		84.2			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		88.3			
	Sb	121					
	Sb	123					
>	Lu	175		91.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 246838001
Sample Date/Time: Sunday, March 07, 2010 07:10:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\246838001.761

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.017**	**ug/L**	72.284	25	0.000
|>	Sc	45		**ug/L**		662404	662404.377
⌊	Mn	55	**1.921**	**ug/L**	3.087	12580	0.017
⌈	Cd	111	**0.004**	**ug/L**	81.764	31	0.000
|	Cd	114		**ug/L**		52	0.000
|>	In	115		**ug/L**		192536	192536.332
|	Sb	121	**-0.048**	**ug/L**	2.323	117	-0.001
⌊	Sb	123		**ug/L**		91	-0.001
⌈>	Lu	175		**ug/L**		410604	410604.274
|	Tl	205	**0.001**	**ug/L**	1478.590	3244	0.000
|	Pb	208	**0.096**	**ug/L**	4.181	3594	0.007
⌊	U	238	**-0.004**	**ug/L**	22.895	595	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		82.5			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		83.4			
	Sb	121					
	Sb	123					
>	Lu	175		85.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042571
Sample Date/Time: Sunday, March 07, 2010 07:22:27
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\1202042571.763

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	-0.007	ug/L	39.004	17	-0.000
|>	Sc	45		ug/L		674703	674703.062
⌊	Mn	55	0.177	ug/L	5.656	2410	0.002
⌈	Cd	111	-0.013	ug/L	24.410	11	-0.000
|	Cd	114		ug/L		28	-0.000
|>	In	115		ug/L		196824	196824.377
|	Sb	121	-0.055	ug/L	3.281	89	-0.001
⌊	Sb	123		ug/L		74	-0.001
⌈>	Lu	175		ug/L		421575	421575.114
|	Tl	205	-0.014	ug/L	61.699	3087	-0.001
|	Pb	208	-0.010	ug/L	3.413	472	-0.001
⌊	U	238	-0.018	ug/L	1.399	74	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		84.0			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		85.2			
	Sb	121					
	Sb	123					
>	Lu	175		88.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 07:27:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 6.764

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.566**	**ug/L**	1.014	19683	0.028
>	Sc	45		**ug/L**		700181	700181.266
	Mn	55	**53.118**	**ug/L**	0.447	330506	0.470
	Cd	111	**50.925**	**ug/L**	0.686	65831	0.309
	Cd	114		**ug/L**		157907	0.741
>	In	115		**ug/L**		213167	213167.067
	Sb	121	**51.786**	**ug/L**	1.350	236208	1.106
	Sb	123		**ug/L**		185647	0.870
>	Lu	175		**ug/L**		445520	445520.493
	Tl	205	**49.950**	**ug/L**	2.152	883545	1.975
	Pb	208	**55.190**	**ug/L**	0.586	1763051	3.955
	U	238	**54.257**	**ug/L**	1.303	2276712	5.108

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	107.132				
>	Sc	45		87.2			
	Mn	55	106.235				
	Cd	111	101.850				
	Cd	114					
>	In	115		92.3			
	Sb	121	103.572				
	Sb	123					
>	Lu	175		93.0			
	Tl	205	99.900				
	Pb	208	110.381				
	U	238	108.515				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 07:33:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl er.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 7.765

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.001**	**ug/L**	663.581	21	0.000
|>	Sc	45		**ug/L**		707328	707327.679
⌊	Mn	55	**-0.011**	**ug/L**	62.652	1349	-0.000
⌈	Cd	111	**-0.007**	**ug/L**	120.044	19	-0.000
|	Cd	114		**ug/L**		63	0.000
|>	In	115		**ug/L**		213932	213931.605
|	Sb	121	**0.060**	**ug/L**	18.209	622	0.001
⌊	Sb	123		**ug/L**		494	0.001
⌈>	Lu	175		**ug/L**		461868	461868.490
|	Tl	205	**0.581**	**ug/L**	3.243	14249	0.023
|	Pb	208	**0.001**	**ug/L**	4.354	889	0.000
⌊	U	238	**0.003**	**ug/L**	24.675	1001	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.1			
	Mn	55					
	Cd	111					
	Cd	114					
>	In	115		92.6			
	Sb	121					
	Sb	123					
>	Lu	175		96.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, March 07, 2010 09:07:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\Blank.792

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		470103	
⌊	U	238		ug/L		1066	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, March 07, 2010 09:09:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\Standard 1.793

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		480966	480966.288
	U	238	10.000	ug/L	1.474	525553	1.091

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, March 07, 2010 09:10:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\Standard 2.794

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		481278	481277.800
⌊	U	238	**99.814**	**ug/L**	0.435	4419996	9.182

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, March 07, 2010 09:12:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 1.795

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		482406	482406.099
⌊	U	238	53.936	ug/L	0.464	2394387	4.961

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		102.6			
⌊	U	238	107.871				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, March 07, 2010 09:13:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 2.796

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		471077	471077.088
⌊	U	238	**0.012**	**ug/L**	1.830	1570	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		100.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, March 07, 2010 09:15:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 3.797

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		432580	432580.478
⌊	U	238	**0.244**	**ug/L**	27.161	10410	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		92.0			
⌊	U	238	121.851				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, March 07, 2010 09:17:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 4.798

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		467689	467688.803
	U	238	-0.018	ug/L	3.265	277	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, March 07, 2010 09:18:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 5.799

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		489027	489026.530
⌊	U	238	**22.975**	**ug/L**	1.000	1034513	2.113

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		104.0			
⌊	U	238	114.876				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 09:20:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 6.800

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		475999	475998.754
⌊	U	238	54.529	ug/L	0.180	2388625	5.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		101.3			
⌊	U	238	109.058				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 09:22:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 7.801

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		467232	467232.037
⌊	U	238	**0.009**	**ug/L**	8.825	1438	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 09:36:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 6.809

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		468303	468303.140
	U	238	54.588	ug/L	1.234	2352532	5.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.6			
	U	238	109.176				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 09:38:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 7.810

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		466249	466249.494
⌊	U	238	**0.008**	**ug/L**	3.293	1385	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		99.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 09:51:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 6.817

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		456851	456850.594
	U	238	**54.154**	**ug/L**	0.838	2276748	4.981

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.2			
	U	238	108.307				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 09:53:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 7.818

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		445079	445078.958
⌊	U	238	0.010	ug/L	5.487	1417	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		94.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 10:03:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 6.824

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		501831	501831.094
⌊	U	238	48.347	ug/L	1.519	2232524	4.447

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		106.7			
⌊	U	238	96.693				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 10:05:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 7.825

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		444058	444058.335
⌊	U	238	**0.011**	**ug/L**	11.945	1443	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 10:22:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 6.834

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		474628	474628.138
	U	238	52.959	ug/L	0.902	2313255	4.871

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		101.0			
	U	238	105.917				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 10:23:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 7.835

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		455468	455467.720
	U	238	0.011	ug/L	9.041	1480	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042571
Sample Date/Time: Sunday, March 07, 2010 10:25:28
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\1202042571.836

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		490709	490709.445
	U	238	-0.021	ug/L	1.404	155	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		104.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042572
Sample Date/Time: Sunday, March 07, 2010 10:27:08
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\1202042572.837

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		461335	461335.422
	U	238	**51.840**	**ug/L**	0.892	2200914	4.769

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246838001
Sample Date/Time: Sunday, March 07, 2010 10:28:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\246838001.838

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		486170	486169.711
⌊	U	238	**-0.004**	**ug/L**	13.667	925	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		103.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042573
Sample Date/Time: Sunday, March 07, 2010 10:33:56
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\1202042573.841

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		460477	460477.174
⌊	U	238	-0.020	ug/L	1.221	209	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		98.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042574
Sample Date/Time: Sunday, March 07, 2010 10:35:38
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 952951|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\1202042574.842

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		445004	445004.263
	U	238	**51.610**	**ug/L**	0.680	2113714	4.747

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202042575
Sample Date/Time: Sunday, March 07, 2010 10:37:18
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 952951|5|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\1202042575.843

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		505414	505413.524
	U	238	**-0.012**	**ug/L**	0.797	581	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		107.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 10:38:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 6.844

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		460999	460999.487
	U	238	**54.633**	**ug/L**	0.593	2317814	5.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.1			
	U	238	109.266				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 10:40:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 7.845

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		495074	495074.186
	U	238	**0.008**	**ug/L**	3.434	1484	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		105.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

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Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\021810W1.SIF
Batch ID:
Results Data Set: 021810W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

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Method Loaded
Method Name: WATER **Method Last Saved: 2/8/2010 13:04:57**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/18/2010 08:58:50**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0003	0.0003	08:59:52	Yes
2		[0.00]	0.0004	0.0004	0.0004	09:00:27	Yes
Mean:		[0.00]	0.0004				
SD:		0.00	0.0000				
%RSD:		0.00	5.35				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/18/2010 09:00:46**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0016	0.0074	0.0019	09:01:46	Yes
2		[0.2]	0.0016	0.0082	0.0020	09:02:22	Yes
Mean:		[0.2]	0.0016				
SD:		0.0	0.0000				
%RSD:		0.0	2.99				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00803 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/18/2010 09:02:41**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0048	0.0228	0.0051	09:03:42	Yes
2		[0.5]	0.0046	0.0217	0.0050	09:04:17	Yes
Mean:		[0.5]	0.0047				
SD:		0.0	0.0001				
%RSD:		0.0	1.77				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.997808 Slope: 0.00948 Intercept: -0.00011

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/18/2010 09:04:36**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0181	0.0828	0.0184	09:05:38	Yes
2		[2.0]	0.0180	0.0822	0.0184	09:06:12	Yes
Mean:		[2.0]	0.0181				
SD:		0.0	0.0000				
%RSD:		0.0	0.21				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999816 Slope: 0.00905 Intercept: -0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/18/2010 09:06:32**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0452	0.2051	0.0455	09:07:34	Yes
2		[5.0]	0.0447	0.2024	0.0451	09:08:09	Yes
Mean:		[5.0]	0.0449				
SD:		0.0	0.0003				
%RSD:		0.0	0.76				

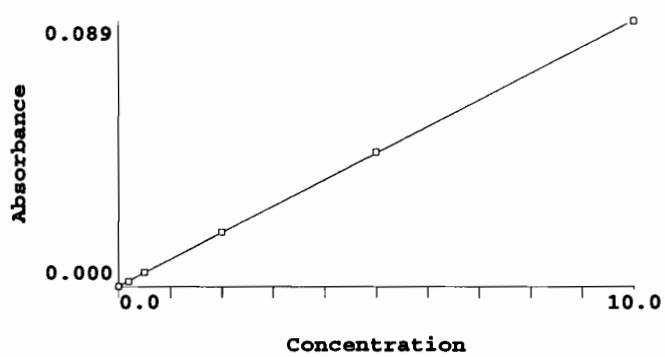
Standard number 4 applied. [5.0]
Correlation Coef.: 0.999970 Slope: 0.00899 Intercept: 0.00001

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/18/2010 09:08:30**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0892	0.4086	0.0895	09:09:30	Yes
2		[10.0]	0.0884	0.4046	0.0887	09:10:05	Yes
Mean:		[10.0]	0.0888				
SD:		0.0	0.0006				
%RSD:		0.0	0.62				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999972 Slope: 0.00889 Intercept: 0.00013



Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.015	0.00	5.4
S0.2	0.0016	0.2	0.166	0.00	3.0
S0.5	0.0047	0.5	0.514	0.00	1.8
S2.0	0.0181	2.0	2.017	0.00	0.2

S5.0	0.0449	5.0	5.043	0.00	0.8
S10.0	0.0888	10.0	9.975	0.00	0.6

Correlation Coef.: 0.999972 Slope: 0.00889 Intercept: 0.00013

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 2/18/2010 09:10:24**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.076	5.076	0.0452	0.2062	0.0456	09:11:25	Yes
2	5.069	5.069	0.0452	0.2060	0.0455	09:12:00	Yes
Mean:	5.073	5.073	0.0452				
SD:	0.005	0.005	0.0000				
%RSD:	0.095	0.095	0.09				

QC value within limits for Hg 253.7 Recovery = 101.46%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 2/18/2010 09:12:20**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.009	-0.009	0.0001	0.0002	0.0004	09:13:21	Yes
2	-0.003	-0.003	0.0001	0.0010	0.0005	09:13:56	Yes
Mean:	-0.006	-0.006	0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	78.04	78.04	49.11				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 2/18/2010 09:14:16**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.200	0.200	0.0019	0.0098	0.0023	09:15:17	Yes
2	0.192	0.192	0.0018	0.0089	0.0022	09:15:52	Yes
Mean:	0.196	0.196	0.0019				
SD:	0.005	0.005	0.0000				
%RSD:	2.778	2.778	2.58				

QC value within limits for Hg 253.7 Recovery = 97.99%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/18/2010 09:16:12**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.941	4.941	0.0440	0.2004	0.0444	09:17:12	Yes
2	4.920	4.920	0.0439	0.1976	0.0442	09:17:47	Yes
Mean:	4.930	4.930	0.0439				
SD:	0.014	0.014	0.0001				
%RSD:	0.294	0.294	0.29				

QC value within limits for Hg 253.7 Recovery = 98.61%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/18/2010 09:18:06**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0000	0.0010	0.0004	09:19:07	Yes
2	-0.002	-0.002	0.0001	0.0017	0.0005	09:19:42	Yes
Mean:	-0.006	-0.006	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	100.5	100.5	62.54				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202039345|951575|1 **Date Collected: 2/18/2010 09:20:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039345|951575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0001	0.0009	0.0004	09:21:03	Yes
2	-0.008	-0.008	0.0001	0.0005	0.0004	09:21:38	Yes
Mean:	-0.007	-0.007	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	27.30	27.30	21.13				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202039346|951575|1 **Date Collected: 2/18/2010 09:21:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039346|951575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.983	1.983	0.0178	0.0811	0.0181	09:23:00	Yes
2	1.995	1.995	0.0179	0.0812	0.0182	09:23:35	Yes
Mean:	1.989	1.989	0.0178				
SD:	0.008	0.008	0.0001				
%RSD:	0.417	0.417	0.41				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 246064001|951575|1 **Date Collected: 2/18/2010 09:23:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 246064001|951575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.043	0.043	0.0005	0.0030	0.0009	09:24:56	Yes
2	0.048	0.048	0.0006	0.0037	0.0009	09:25:31	Yes
Mean:	0.045	0.045	0.0005				
SD:	0.004	0.004	0.0000				
%RSD:	7.976	7.976	5.98				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202039347|951575|1 **Date Collected: 2/18/2010 09:25:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039347|951575|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 246064005|951575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0003	0.0022	0.0007	09:36:24	Yes
2	0.013	0.013	0.0003	0.0017	0.0006	09:36:59	Yes
Mean:	0.017	0.017	0.0003				
SD:	0.006	0.006	0.0001				
%RSD:	33.04	33.04	17.66				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 246064008|951575|1 **Date Collected: 2/18/2010 09:37:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 246064008|951575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0000	0.0009	0.0004	09:38:20	Yes
2	0.011	0.011	0.0002	0.0028	0.0006	09:38:54	Yes
Mean:	0.001	0.001	0.0001				
SD:	0.015	0.015	0.0001				
%RSD:	>999.9%	>999.9%	95.08				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/18/2010 09:39:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.906	4.906	0.0437	0.1971	0.0441	09:40:15	Yes
2	4.893	4.893	0.0436	0.1981	0.0440	09:40:49	Yes
Mean:	4.900	4.900	0.0437				
SD:	0.009	0.009	0.0001				
%RSD:	0.189	0.189	0.19				

QC value within limits for Hg 253.7 Recovery = 98.00%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/18/2010 09:41:08**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0003	0.0043	0.0006	09:42:09	Yes
2	0.028	0.028	0.0004	0.0038	0.0007	09:42:44	Yes
Mean:	0.023	0.023	0.0003				
SD:	0.008	0.008	0.0001				
%RSD:	33.16	33.16	20.08				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 246064009|951575|1 **Date Collected: 2/18/2010 09:43:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 246064009|951575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0002	0.0025	0.0005	09:44:04	Yes
2	0.023	0.023	0.0003	0.0042	0.0007	09:44:39	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.038	2.038	0.0182	0.0838	0.0186	09:53:46	Yes
2	2.011	2.011	0.0180	0.0836	0.0184	09:54:20	Yes
Mean:	2.024	2.024	0.0181				
SD:	0.019	0.019	0.0002				
%RSD:	0.937	0.937	0.93				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202039437|951622|5 **Date Collected: 2/18/2010 09:54:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039437|951622|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0002	0.0031	0.0006	09:55:40	Yes
2	0.003	0.003	0.0002	0.0018	0.0005	09:56:15	Yes
Mean:	0.007	0.007	0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	84.89	84.89	27.88				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 246304002|951622|1 **Date Collected: 2/18/2010 09:56:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 246304002|951622|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0004	0.0051	0.0008	09:57:35	Yes
2	0.028	0.028	0.0004	0.0051	0.0007	09:58:10	Yes
Mean:	0.029	0.029	0.0004				
SD:	0.003	0.003	0.0000				
%RSD:	8.657	8.657	5.73				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 246304003|951622|1 **Date Collected: 2/18/2010 09:58:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 246304003|951622|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0003	0.0026	0.0006	09:59:30	Yes
2	0.007	0.007	0.0002	0.0021	0.0006	10:00:04	Yes
Mean:	0.013	0.013	0.0002				
SD:	0.007	0.007	0.0001				
%RSD:	58.71	58.71	26.96				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 246304004|951622|1 **Date Collected: 2/18/2010 10:00:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 246304004|951622|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0002	0.0022	0.0006	10:01:25	Yes
2	0.012	0.012	0.0002	0.0023	0.0006	10:02:00	Yes
Mean:	0.010	0.010	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	21.58	21.58	8.66				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/18/2010 10:02:19**

Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.064	5.064	0.0451	0.2048	0.0455	10:03:20	Yes
2	5.071	5.071	0.0452	0.2045	0.0455	10:03:55	Yes
Mean:	5.067	5.067	0.0452				
SD:	0.004	0.004	0.0000				
%RSD:	0.085	0.085	0.08				

QC value within limits for Hg 253.7 Recovery = 101.35%
All analyte(s) passed QC.

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/18/2010 10:04:14**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0002	0.0025	0.0006	10:05:15	Yes
2	0.002	0.002	0.0002	0.0016	0.0005	10:05:49	Yes
Mean:	0.007	0.007	0.0002				
SD:	0.007	0.007	0.0001				
%RSD:	94.56	94.56	31.17				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 246352001|951622|1 **Date Collected: 2/18/2010 10:06:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 246352001|951622|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0002	0.0020	0.0006	10:07:10	Yes
2	0.001	0.001	0.0001	0.0020	0.0005	10:07:44	Yes
Mean:	0.004	0.004	0.0002				
SD:	0.005	0.005	0.0000				
%RSD:	109.4	109.4	24.02				

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 246352002|951622|1 **Date Collected: 2/18/2010 10:08:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 246352002|951622|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0001	0.0018	0.0005	10:09:05	Yes
2	0.006	0.006	0.0002	0.0018	0.0005	10:09:40	Yes
Mean:	0.003	0.003	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	93.66	93.66	17.02				

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 246352003|951622|1 **Date Collected: 2/18/2010 10:09:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 246352003|951622|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0001	0.0010	0.0005	10:11:01	Yes

Replicate Data: 1202039438|954622|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0002	0.0022	0.0005	10:20:42	Yes
2	0.001	0.001	0.0001	0.0018	0.0005	10:21:17	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	51.84	51.84	4.88				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 246364002|951622|1 **Date Collected: 2/18/2010 10:21:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 246364002|951622|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0020	0.0005	10:22:37	Yes
2	0.007	0.007	0.0002	0.0026	0.0005	10:23:12	Yes
Mean:	0.004	0.004	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	126.8	126.8	23.98				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 246364003|951622|1 **Date Collected: 2/18/2010 10:23:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 246364003|951622|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0027	0.0005	10:24:33	Yes
2	-0.001	-0.001	0.0001	0.0023	0.0005	10:25:07	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	442.5	442.5	6.65				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/18/2010 10:25:27**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.062	5.062	0.0451	0.2061	0.0455	10:26:27	Yes
2	5.028	5.028	0.0448	0.2052	0.0452	10:27:02	Yes
Mean:	5.045	5.045	0.0450				
SD:	0.024	0.024	0.0002				
%RSD:	0.472	0.472	0.47				

QC value within limits for Hg 253.7 Recovery = 100.90%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/18/2010 10:27:21**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0001	0.0028	0.0005	10:28:22	Yes
2	-0.005	-0.005	0.0001	0.0023	0.0004	10:28:57	Yes
Mean:	-0.004	-0.004	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	62.24	62.24	19.94				

QC value within limits for Hg 253.7 Recovery = Not calculated

---

Replicate Data: 246574001|951641|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0001	0.0028	0.0005	10:47:42	Yes
2	0.002	0.002	0.0002	0.0025	0.0005	10:48:17	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	28.62	28.62	2.76				

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/18/2010 10:48:37**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.035	5.035	0.0449	0.2076	0.0452	10:49:37	Yes
2	5.032	5.032	0.0448	0.2066	0.0452	10:50:12	Yes
Mean:	5.033	5.033	0.0449				
SD:	0.002	0.002	0.0000				
%RSD:	0.043	0.043	0.04				

QC value within limits for Hg 253.7 Recovery = 100.67%
All analyte(s) passed QC.

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/18/2010 10:50:31**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0001	0.0018	0.0005	10:51:31	Yes
2	0.002	0.002	0.0002	0.0029	0.0005	10:52:06	Yes
Mean:	-0.001	-0.001	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	555.0	555.0	31.12				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 246574002|951641|1 **Date Collected: 2/18/2010 10:52:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 246574002|951641|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0000	0.0014	0.0004	10:53:27	Yes
2	-0.005	-0.005	0.0001	0.0020	0.0004	10:54:02	Yes
Mean:	-0.008	-0.008	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	38.76	38.76	39.35				

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 246598001|951641|1 **Date Collected: 2/18/2010 10:54:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 246598001|951641|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	0.0001	0.0013	0.0004	10:55:22	Yes
2	-0.002	-0.002	0.0001	0.0026	0.0005	10:55:57	Yes
Mean:	-0.005	-0.005	0.0001				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.016	-0.016	-0.0000	0.0008	0.0003	11:05:01	Yes
2	-0.013	-0.013	0.0000	0.0015	0.0004	11:05:36	Yes
Mean:	-0.015	-0.015	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	11.76	11.76	389.06				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 1202045545|954225|1 **Date Collected: 2/18/2010 11:05:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045545|954225|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.057	2.057	0.0184	0.0851	0.0188	11:06:57	Yes
2	2.062	2.062	0.0185	0.0844	0.0188	11:07:32	Yes
Mean:	2.059	2.059	0.0184				
SD:	0.003	0.003	0.0000				
%RSD:	0.158	0.158	0.16				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 247105001|954225|1 **Date Collected: 2/18/2010 11:07:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 247105001|954225|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.236	0.236	0.0022	0.0123	0.0026	11:08:54	Yes
2	0.228	0.228	0.0022	0.0113	0.0025	11:09:28	Yes
Mean:	0.232	0.232	0.0022				
SD:	0.006	0.006	0.0001				
%RSD:	2.489	2.489	2.34				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 1202045546|954225|1 **Date Collected: 2/18/2010 11:09:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045546|954225|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.047	2.047	0.0183	0.0874	0.0187	11:10:51	Yes
2	2.058	2.058	0.0184	0.0881	0.0188	11:11:26	Yes
Mean:	2.052	2.052	0.0184				
SD:	0.008	0.008	0.0001				
%RSD:	0.379	0.379	0.38				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/18/2010 11:11:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.216	5.216	0.0465	0.2110	0.0468	11:12:47	Yes
2	5.237	5.237	0.0467	0.2110	0.0470	11:13:21	Yes
Mean:	5.227	5.227	0.0466				
SD:	0.015	0.015	0.0001				
%RSD:	0.286	0.286	0.28				

QC value within limits for Hg 253.7 Recovery = 104.53%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB **Date Collected: 2/18/2010 11:13:40**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0001	0.0014	0.0005	11:14:41	Yes
2	-0.001	-0.001	0.0001	0.0020	0.0005	11:15:16	Yes
Mean:	-0.003	-0.003	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	64.98	64.98	13.73				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 1202045547|954225|1 **Date Collected: 2/18/2010 11:15:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045547|954225|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.120	2.120	0.0190	0.0902	0.0193	11:16:37	Yes
2	2.097	2.097	0.0188	0.0888	0.0191	11:17:11	Yes
Mean:	2.108	2.108	0.0189				
SD:	0.017	0.017	0.0001				
%RSD:	0.797	0.797	0.79				

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202045548|954225|5 **Date Collected: 2/18/2010 11:17:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045548|954225|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.053	0.053	0.0006	0.0043	0.0010	11:18:32	Yes
2	0.048	0.048	0.0006	0.0039	0.0009	11:19:07	Yes
Mean:	0.050	0.050	0.0006				
SD:	0.004	0.004	0.0000				
%RSD:	7.192	7.192	5.54				

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 247106001|954225|1 **Date Collected: 2/18/2010 11:19:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 247106001|954225|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0001	0.0019	0.0005	11:20:28	Yes
2	-0.004	-0.004	0.0001	0.0013	0.0005	11:21:03	Yes
Mean:	-0.004	-0.004	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.334	0.334	0.11				

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 247106002|954225|1 **Date Collected: 2/18/2010 11:21:23**
Analyst: JXL **Data Type: Original**

Replicate Data: 247106002|954225|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.265	0.265	0.0025	0.0127	0.0028	11:22:24	Yes
2	0.259	0.259	0.0024	0.0118	0.0028	11:22:59	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.270	0.270	0.0025	0.0130	0.0029	11:32:04	Yes
2	0.270	0.270	0.0025	0.0125	0.0029	11:32:39	Yes
Mean:	0.270	0.270	0.0025				
SD:	0.000	0.000	0.0000				
%RSD:	0.091	0.091	0.09				

==========

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202045557|954231|1 **Date Collected: 2/18/2010 11:32:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045557|954231|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.457	2.457	0.0220	0.0988	0.0223	11:34:01	Yes
2	2.493	2.493	0.0223	0.1000	0.0226	11:34:36	Yes
Mean:	2.475	2.475	0.0221				
SD:	0.025	0.025	0.0002				
%RSD:	1.012	1.012	1.01				

==========

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/18/2010 11:34:56**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.328	5.328	0.0475	0.2132	0.0478	11:35:56	Yes
2	5.356	5.356	0.0477	0.2128	0.0481	11:36:31	Yes
Mean:	5.342	5.342	0.0476				
SD:	0.019	0.019	0.0002				
%RSD:	0.363	0.363	0.36				

QC value within limits for Hg 253.7 Recovery = 106.84%
All analyte(s) passed QC.

==========

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/18/2010 11:36:50**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0001	0.0007	0.0005	11:37:51	Yes
2	-0.001	-0.001	0.0001	0.0012	0.0005	11:38:25	Yes
Mean:	-0.002	-0.002	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	56.25	56.25	8.03				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 1202045558|954231|5 **Date Collected: 2/18/2010 11:38:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045558|954231|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.070	0.070	0.0008	0.0048	0.0011	11:39:46	Yes
2	0.060	0.060	0.0007	0.0040	0.0010	11:40:21	Yes
Mean:	0.065	0.065	0.0007				
SD:	0.007	0.007	0.0001				
%RSD:	11.15	11.15	9.04				

Sequence No.: 85 **Autosampler Location: 73**
Sample ID: 247206002|954231|1 **Date Collected: 2/18/2010 11:40:41**
Analyst: JXL **Data Type: Original**

Replicate Data: 247206002|954231|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	67.14	67.14	0.5968	2.8830	0.5971	11:41:43	Yes
Sample concentration is greater than that of the highest standard.							
2	66.41	66.41	0.5902	2.8838	0.5906	11:42:18	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	66.78	66.78	0.5935				
SD:	0.522	0.522	0.0046				
%RSD:	0.781	0.781	0.78				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 86 **Autosampler Location: 74**
Sample ID: 1202045611|954258|1 **Date Collected: 2/18/2010 11:42:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045611|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0003	0.0005	11:43:40	Yes
2	-0.003	-0.003	0.0001	0.0007	0.0005	11:44:15	Yes
Mean:	-0.002	-0.002	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	142.6	142.6	17.16				

Sequence No.: 87 **Autosampler Location: 75**
Sample ID: 1202045612|954258|1 **Date Collected: 2/18/2010 11:44:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045612|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.002	2.002	0.0179	0.0873	0.0183	11:45:37	Yes
2	1.998	1.998	0.0179	0.0868	0.0182	11:46:12	Yes
Mean:	2.000	2.000	0.0179				
SD:	0.003	0.003	0.0000				
%RSD:	0.128	0.128	0.13				

Sequence No.: 88 **Autosampler Location: 76**
Sample ID: 246613001|954258|1 **Date Collected: 2/18/2010 11:46:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 246613001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	0.0001	0.0022	0.0004	11:47:33	Yes
2	-0.011	-0.011	0.0000	0.0012	0.0004	11:48:08	Yes
Mean:	-0.009	-0.009	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	32.79	32.79	44.22				

Sequence No.: 89 **Autosampler Location: 77**
Sample ID: 246685001|954258|1 **Date Collected: 2/18/2010 11:48:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 246685001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.033	-0.033	-0.0002	-0.0008	0.0002	11:49:29	Yes
2	-0.014	-0.014	0.0000	0.0016	0.0004	11:50:04	Yes
Mean:	-0.024	-0.024	-0.0001				
SD:	0.013	0.013	0.0001				
%RSD:	56.47	56.47	155.45				

==========

Sequence No.: 90 **Autosampler Location: 78**
Sample ID: 246724001|954258|1 **Date Collected: 2/18/2010 11:50:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 246724001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0000	0.0010	0.0003	11:51:26	Yes
2	-0.015	-0.015	-0.0000	0.0009	0.0004	11:52:00	Yes
Mean:	-0.018	-0.018	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	20.66	20.66	137.90				

==========

Sequence No.: 91 **Autosampler Location: 79**
Sample ID: 246724002|954258|1 **Date Collected: 2/18/2010 11:52:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 246724002|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	-0.0001	0.0003	0.0002	11:53:22	Yes
2	-0.017	-0.017	-0.0000	0.0011	0.0003	11:53:57	Yes
Mean:	-0.024	-0.024	-0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	41.34	41.34	107.25				

==========

Sequence No.: 92 **Autosampler Location: 80**
Sample ID: 246730001|954258|1 **Date Collected: 2/18/2010 11:54:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 246730001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0000	0.0013	0.0003	11:55:18	Yes
2	-0.018	-0.018	-0.0000	0.0013	0.0003	11:55:53	Yes
Mean:	-0.018	-0.018	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.220	0.220	1.24				

==========

Sequence No.: 93 **Autosampler Location: 81**
Sample ID: 246742001|954258|1 **Date Collected: 2/18/2010 11:56:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 246742001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	-0.0001	0.0012	0.0003	11:57:15	Yes
2	-0.028	-0.028	-0.0001	0.0005	0.0002	11:57:50	Yes
Mean:	-0.026	-0.026	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	13.47	13.47	32.63				

==========

Sequence No.: 94 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/18/2010 11:58:10**

Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.391	4.391	0.0392	0.2013	0.0395	11:59:10	Yes
2	4.369	4.369	0.0390	0.2008	0.0393	11:59:45	Yes
Mean:	4.380	4.380	0.0391				
SD:	0.015	0.015	0.0001				
%RSD:	0.353	0.353	0.35				

QC value less than the lower limit for Hg 253.7 Recovery = 87.60%
QC Failed. Continue with analysis.

Sequence No.: 95 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/18/2010 12:00:04**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	-0.0002	0.0008	0.0002	12:01:05	Yes
2	-0.028	-0.028	-0.0001	0.0014	0.0002	12:01:40	Yes
Mean:	-0.030	-0.030	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	9.122	9.122	18.16				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 96 **Autosampler Location: 82**
Sample ID: 246742002|954258|1 **Date Collected: 2/18/2010 12:01:59**
Analyst: JXL **Data Type: Original**
User canceled analysis.

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\021810W1.SIF
Batch ID:
Results Data Set: 021810W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 2/8/2010 13:04:57**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/18/2010 12:07:20**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.984	4.984	0.0444	0.2003	0.0448	12:08:21	Yes
2	4.993	4.993	0.0445	0.2000	0.0449	12:08:56	Yes
Mean:	4.988	4.988	0.0445				
SD:	0.006	0.006	0.0001				
%RSD:	0.126	0.126	0.13				

QC value within limits for Hg 253.7 Recovery = 99.76%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/18/2010 12:09:15**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0002	0.0016	0.0005	12:10:15	Yes
2	0.005	0.005	0.0002	0.0021	0.0005	12:10:50	Yes
Mean:	0.005	0.005	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	7.716	7.716	2.05				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 72**
Sample ID: 1202045558|954231|5 **Date Collected: 2/18/2010 12:11:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045558|954231|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	0.0004	0.0024	0.0007	12:12:11	Yes
2	0.032	0.032	0.0004	0.0027	0.0008	12:12:46	Yes
Mean:	0.029	0.029	0.0004				
SD:	0.003	0.003	0.0000				
%RSD:	10.09	10.09	6.68				

==========

Sequence No.: 4 **Autosampler Location: 73**
Sample ID: 247206002|954231|50 **Date Collected: 2/18/2010 12:13:06**
Analyst: JXL **Data Type: Original**

Sequence No.: 9
Sample ID: 246766001|954258|1
Analyst: JXL
Autosampler Location: 86
Date Collected: 2/18/2010 12:22:50
Data Type: Original

Replicate Data: 246766001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0002	0.0018	0.0005	12:23:51	Yes
2	0.012	0.012	0.0002	0.0035	0.0006	12:24:26	Yes
Mean:	0.009	0.009	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	37.02	37.02	14.05				

Sequence No.: 10
Sample ID: 246838001|954258|1
Analyst: JXL
Autosampler Location: 87
Date Collected: 2/18/2010 12:24:46
Data Type: Original

Replicate Data: 246838001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0021	0.0006	12:25:48	Yes
2	0.009	0.009	0.0002	0.0033	0.0006	12:26:23	Yes
Mean:	0.009	0.009	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	2.275	2.275	0.87				

Sequence No.: 11
Sample ID: 246842001|954258|1
Analyst: JXL
Autosampler Location: 88
Date Collected: 2/18/2010 12:26:43
Data Type: Original

Replicate Data: 246842001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0035	0.0006	12:27:45	Yes
2	0.017	0.017	0.0003	0.0030	0.0006	12:28:19	Yes
Mean:	0.014	0.014	0.0003				
SD:	0.005	0.005	0.0000				
%RSD:	35.22	35.22	16.75				

Sequence No.: 12
Sample ID: 246844001|954258|1
Analyst: JXL
Autosampler Location: 89
Date Collected: 2/18/2010 12:28:40
Data Type: Original

Replicate Data: 246844001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.020	0.020	0.0003	0.0037	0.0007	12:29:41	Yes
2	0.003	0.003	0.0002	0.0023	0.0005	12:30:16	Yes
Mean:	0.011	0.011	0.0002				
SD:	0.012	0.012	0.0001				
%RSD:	107.8	107.8	46.12				

Sequence No.: 13
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 2/18/2010 12:30:36
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.702	4.702	0.0419	0.1887	0.0423	12:31:37	Yes
2	4.669	4.669	0.0416	0.1881	0.0420	12:32:11	Yes
Mean:	4.686	4.686	0.0418				

SD:	0.023	0.023	0.0002
%RSD:	0.500	0.500	0.50

QC value within limits for Hg 253.7 Recovery = 93.71%
All analyte(s) passed QC.

==========

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/18/2010 12:32:31**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.020	0.020	0.0003	0.0029	0.0007	12:33:31	Yes
2	0.009	0.009	0.0002	0.0033	0.0006	12:34:06	Yes
Mean:	0.014	0.014	0.0003				
SD:	0.008	0.008	0.0001				
%RSD:	53.60	53.60	26.07				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 15 **Autosampler Location: 90**
Sample ID: 246853001|954258|1 **Date Collected: 2/18/2010 12:34:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 246853001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0002	0.0030	0.0006	12:35:27	Yes
2	0.008	0.008	0.0002	0.0026	0.0006	12:36:02	Yes
Mean:	0.008	0.008	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	10.19	10.19	3.59				

==========

Sequence No.: 16 **Autosampler Location: 91**
Sample ID: 246860001|954258|1 **Date Collected: 2/18/2010 12:36:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 246860001|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0003	0.0038	0.0006	12:37:24	Yes
2	0.004	0.004	0.0002	0.0025	0.0005	12:37:58	Yes
Mean:	0.009	0.009	0.0002				
SD:	0.008	0.008	0.0001				
%RSD:	86.29	86.29	32.87				

==========

Sequence No.: 17 **Autosampler Location: 92**
Sample ID: 1202045613|954258|1 **Date Collected: 2/18/2010 12:38:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045613|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0003	0.0031	0.0006	12:39:20	Yes
2	0.007	0.007	0.0002	0.0024	0.0006	12:39:55	Yes
Mean:	0.011	0.011	0.0002				
SD:	0.005	0.005	0.0000				
%RSD:	48.61	48.61	20.66				

==========

Sequence No.: 18 **Autosampler Location: 93**
Sample ID: 1202045614|954258|1 **Date Collected: 2/18/2010 12:40:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045614|954258|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.923	1.923	0.0172	0.0805	0.0176	12:41:17	Yes
2	1.909	1.909	0.0171	0.0787	0.0174	12:41:52	Yes
Mean:	1.916	1.916	0.0172				
SD:	0.010	0.010	0.0001				
%RSD:	0.536	0.536	0.53				

Sequence No.: 19 **Autosampler Location: 94**
Sample ID: 1202045615|954258|5 **Date Collected: 2/18/2010 12:42:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045615|954258|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	0.0002	0.0022	0.0005	12:43:13	Yes
2	0.013	0.013	0.0003	0.0036	0.0006	12:43:48	Yes
Mean:	0.008	0.008	0.0002				
SD:	0.007	0.007	0.0001				
%RSD:	86.03	86.03	30.62				

Sequence No.: 20 **Autosampler Location: 95**
Sample ID: 1202045573|954240|1 **Date Collected: 2/18/2010 12:44:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045573|954240|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0001	0.0024	0.0005	12:45:10	Yes
2	-0.004	-0.004	0.0001	0.0024	0.0005	12:45:45	Yes
Mean:	-0.001	-0.001	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	253.4	253.4	26.00				

Sequence No.: 21 **Autosampler Location: 96**
Sample ID: 1202045574|954240|1 **Date Collected: 2/18/2010 12:46:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202045574|954240|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.006	2.006	0.0180	0.0840	0.0183	12:47:07	Yes
2	1.991	1.991	0.0178	0.0834	0.0182	12:47:43	Yes
Mean:	1.999	1.999	0.0179				
SD:	0.011	0.011	0.0001				
%RSD:	0.556	0.556	0.55				

Sequence No.: 22 **Autosampler Location: 97**
Sample ID: 247057003|954240|1 **Date Collected: 2/18/2010 12:48:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 247057003|954240|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0024	0.0005	12:49:05	Yes
2	0.013	0.013	0.0003	0.0033	0.0006	12:49:40	Yes
Mean:	0.007	0.007	0.0002				
SD:	0.010	0.010	0.0001				
%RSD:	147.5	147.5	44.75				

Sequence No.: 23
Sample ID: 1202045575|954240|1
Analyst: JXL
Autosampler Location: 98
Date Collected: 2/18/2010 12:50:00
Data Type: Original

Replicate Data: 1202045575|954240|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0004	0.0037	0.0007	12:51:02	Yes
2	0.025	0.025	0.0004	0.0034	0.0007	12:51:38	Yes
Mean:	0.025	0.025	0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	0.310	0.310	0.19				

Sequence No.: 24
Sample ID: 1202045576|954240|1
Analyst: JXL
Autosampler Location: 99
Date Collected: 2/18/2010 12:51:58
Data Type: Original

Replicate Data: 1202045576|954240|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.718	1.718	0.0154	0.0690	0.0158	12:53:00	Yes
2	1.739	1.739	0.0156	0.0696	0.0159	12:53:36	Yes
Mean:	1.729	1.729	0.0155				
SD:	0.015	0.015	0.0001				
%RSD:	0.869	0.869	0.86				

Sequence No.: 25
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 2/18/2010 12:53:56
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.191	4.191	0.0374	0.1626	0.0377	12:54:57	Yes
2	4.185	4.185	0.0373	0.1630	0.0377	12:55:32	Yes
Mean:	4.188	4.188	0.0373				
SD:	0.004	0.004	0.0000				
%RSD:	0.097	0.097	0.10				

QC value less than the lower limit for Hg 253.7 Recovery = 83.75%
QC Failed. Continue with analysis.

Sequence No.: 26
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/18/2010 12:55:51
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0004	0.0030	0.0008	12:56:52	Yes
2	0.024	0.024	0.0004	0.0026	0.0007	12:57:26	Yes
Mean:	0.027	0.027	0.0004				
SD:	0.004	0.004	0.0000				
%RSD:	15.48	15.48	10.01				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.
User canceled analysis.

Miscellaneous

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **954255.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7470A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202045612	Mercury working intermediate standard for LCS/MS	WHG100217-13	.2	mL
MS	1202045614	Mercury working intermediate standard for LCS/MS	WHG100217-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202045611 MB	17-FEB-2010 15:35:00	Water	20	20	1	<2
1202045612 LCS	17-FEB-2010 15:35:00	Water	20	20	1	<2
246613001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246685001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246724001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246724002	17-FEB-2010 15:35:00	Water	20	20	1	<2
246730001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246742001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246742002	17-FEB-2010 15:35:00	Water	20	20	1	<2
246753001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246755001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246755002	17-FEB-2010 15:35:00	Water	20	20	1	<2
246766001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246838001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246842001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246844001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246853001	17-FEB-2010 15:35:00	Water	20	20	1	<2
246860001	17-FEB-2010 15:35:00	Water	20	20	1	<2
1202045613 DUP (246860001)	17-FEB-2010 15:35:00	Water	20	20	1	<2
1202045614 MS (246860001)	17-FEB-2010 15:35:00	Water	20	20	1	<2
1202045615 SDILT (246860001)	17-FEB-2010 15:35:00	Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
I176183	Sulfuric Acid, Concentrated	1 mL
1255532-C	Hg reducing agent	1 mL
1257474-1	NITRIC ACID	.5 mL
1261483-C	5% Potassium Persulfate	1.5 mL

Comments:

Digestion Start Date: 17-FEB-10 15:35

Digestion End Date: 17-FEB-10 17:35

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **952948.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202042567	Metals Spike Mix I	UI100205-01	.25	mL
LCS	1202042567	Metals Spike Mix II	UI100205-06	.25	mL
MS	1202042569	Metals Spike Mix I	UI100205-01	.25	mL
MS	1202042569	Metals Spike Mix II	UI100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202042566 MB	22-FEB-2010 11:00:00	Water	50	50	1	<2
1202042567 LCS	22-FEB-2010 11:00:00	Water	50	50	1	<2
246838001	22-FEB-2010 11:00:00	Water	50	50	1	<2
246871001	22-FEB-2010 11:00:00	Water	50	50	1	<2
246882001	22-FEB-2010 11:00:00	Water	50	50	1	<2
1202042568 DUP (246882001)	22-FEB-2010 11:00:00	Water	50	50	1	<2
1202042569 MS (246882001)	22-FEB-2010 11:00:00	Water	50	50	1	<2
1202042570 SDILT (246882001)	22-FEB-2010 11:00:00	Water	50	50	1	<2
246882002	22-FEB-2010 11:00:00	Water	50	50	1	<2
246883001	22-FEB-2010 11:00:00	Water	50	50	1	<2
246883002	22-FEB-2010 11:00:00	Water	50	50	1	<2
246883003	22-FEB-2010 11:00:00	Water	50	50	1	<2
246883004	22-FEB-2010 11:00:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1265209	HYDROCHLORIC ACID	2.5 mL
1268732	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **952950.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202042572	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI100205-A	.5	mL
LCS	1202042572	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI100205-B	.5	mL
MS	1202042574	ICP-MS DOE liquid Spike Solution A	UI090930-A	.5	mL
MS	1202042574	ICP-MS DOE Liquid Spike Solution B	UI090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202042571 MB	22-FEB-2010 11:00:00	Water	50	50	1	<2
1202042572 LCS	22-FEB-2010 11:00:00	Water	50	50	1	<2
246838001	22-FEB-2010 11:00:00	Water	50	50	1	<2
246871001	22-FEB-2010 11:00:00	Water	50	50	1	<2
246882001	22-FEB-2010 11:00:00	Water	50	50	1	<2
1202042573 DUP (246882001)	22-FEB-2010 11:00:00	Water	50	50	1	<2
1202042574 MS (246882001)	22-FEB-2010 11:00:00	Water	50	50	1	<2
1202042575 SDILT (246882001)	22-FEB-2010 11:00:00	Water	50	50	1	<2
246882002	22-FEB-2010 11:00:00	Water	50	50	1	<2
246883001	22-FEB-2010 11:00:00	Water	50	50	1	<2
246883002	22-FEB-2010 11:00:00	Water	50	50	I	<2
246883003	22-FEB-2010 11:00:00	Water	50	50	1	<2
246883004	22-FEB-2010 11:00:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1265209	HYDROCHLORIC ACID	2.5 mL
1268732	Nitric Acid CONC.	1 mL

Comments:

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Standard Logbook

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100205-A **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100205-B **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI100217-48 **Opened:** 04-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 17-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-MAR-11 **Lot Number :** 1018878
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100226-40 **Opened:** 26-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100226-41 **Opened:** 26-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A

Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100217-01 **Opened:** 17-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 17-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 18-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100217-02 **Opened:** 17-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 18-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG100217-01a **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100217-02 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100217-03 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100217-04 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Standard Logbook

Serial ID: WHG100217-05 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100217-06 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100217-13 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100309-42 **Opened:** 09-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 10-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1281689
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100309-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100309-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100309-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100309-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100309-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100309-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100309-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100309-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100309-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100309-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100309-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100309-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100309-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100309-43 **Opened:** 09-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 10-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1281689
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100309-44 **Opened:** 09-MAR-10 **Balance Id :** 216

Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809

Type: Working **Expires:** 10-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1281689

Employee: Helen Camello

Supplier: o2si

Description: Trace ICP Calibration Standard 1.0ppm

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100309-45 **Opened:** 09-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 10-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1281689
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100309-46 **Opened:** 09-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 10-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1281689
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100309-47 **Opened:** 09-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 10-MAR-10 **Solvent :** 3%HCL &1%HNO3-1281689
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100306-04 **Opened:** 06-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 06-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 07-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1276824
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100306-04A **Opened:** 06-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 06-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 07-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100306-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100306-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100306-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100306-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100306-05 **Opened:** 06-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 06-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 07-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100306-06 **Opened:** 06-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 06-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 07-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100306-07 **Opened:** 06-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 06-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 07-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1276824
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100306-08 **Opened:** 06-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 06-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 07-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1261483-C **Opened:** 28-JAN-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-JAN-10
Type: Reagent/Solvent **Expires:** 28-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1268732 **Opened:** 11-FEB-10 **Lot Number :** H12022 L
Name: I-HNO3 **Received:** 11-FEB-10
Type: Reagent/Solvent **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1276824 **Opened:** 01-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 08-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1276974 **Opened:** 01-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 25-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 07-MAR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Standard Logbook

Serial ID:	1281689	**Opened:**	08-MAR-10	**Amount :**	20 L
Name:	B-ICP-RINSE SOLN	**Received:**	01-MAR-10	**Lot Number :**	H04040+G34050
Type:	Reagent/Solvent	**Expires:**	14-MAR-10	**Solvent :**	3%HCL+1%HNO3

Employee: Helen Camello

Supplier: GEL

Description: 3%HCL+1%HNO3 RINSE SOLN.

Comments: None

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1747

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	953084	**Method:**	SW9012A Cyanide and Total
Prep Batch :	953083	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987
246837005	RE15-10-7988
246837006	RE15-10-7989
1202042848	Method Blank (MB)
1202042849	246854011(RE16-10-3737) Sample Duplicate (DUP)
1202042850	246837001(RE15-10-7992) Sample Duplicate (DUP)
1202042851	246854011(RE16-10-3737) Matrix Spike (MS)
1202042852	246837001(RE15-10-7992) Matrix Spike (MS)
1202042853	246854011(RE16-10-3737) Matrix Spike Duplicate (MSD)
1202042854	246837001(RE15-10-7992) Matrix Spike Duplicate (MSD)
1202042855	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 246837001 (RE15-10-7992) and 246854011 (RE16-10-3737).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202042855 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

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

Review Validation:

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

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

Reviewer: _____ **Date:** 09Mar10

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1747 GEL Work Order: 246837

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7992	Project:	LANL01004
Sample ID:	246837001	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	9.14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.8	275	ug/kg	1	AXC2 02/18/10	1058	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7991	Project:	LANL01004
Sample ID:	246837002	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	29%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	92.1	338	ug/kg	1	AXC2 02/18/10	1102	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7990	Project:	LANL01004
Sample ID:	246837003	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.4	252	ug/kg	1	AXC2 02/18/10	1102	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7987	Project:	LANL01004
Sample ID:	246837004	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	34.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	181	97.8	360	ug/kg	1	AXC2 02/18/10	1103	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7988	Project:	LANL01004
Sample ID:	246837005	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	9.23%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.9	275	ug/kg	1	AXC2 02/18/10	1104	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: March 6, 2010

Client SDG: 10-1747

Client Sample ID:	RE15-10-7989	Project:	LANL01004
Sample ID:	246837006	Client ID:	LANL010
Matrix:	R		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		
Moisture:	26.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	89.1	327	ug/kg	1	AXC2 02/18/10	1105	953084	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/17/10	1545	953083

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 6, 2010

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

Contact: Ms. Joylene Valdez

Workorder: 246837

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 953084										
QC1202042849 246854011 DUP										
Cyanide, Total	J	182	J	199	ug/kg	8.96 ^		(+/-315)	AXC2	02/18/10 11:10
QC1202042850 246837001 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				02/18/10 10:59
QC1202042855 LCS										
Cyanide, Total	67900			72800	ug/kg		107	(32%-157%)		02/18/10 10:53
QC1202042848 MB										
Cyanide, Total			U	250	ug/kg					02/18/10 10:53
QC1202042851 246854011 MS										
Cyanide, Total	6290 J	182		5970	ug/kg		92	(26%-158%)		02/18/10 11:11
QC1202042852 246837001 MS										
Cyanide, Total	5290 U	ND		5820	ug/kg		110	(26%-158%)		02/18/10 11:00
QC1202042853 246854011 MSD										
Cyanide, Total	6170 J	182		6420	ug/kg	7.17	101	(0%-30%)		02/18/10 11:12
QC1202042854 246837001 MSD										
Cyanide, Total	5390 U	ND		5500	ug/kg	5.61	102	(0%-30%)		02/18/10 11:01

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 246837

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

on nearest internal standard response factor

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 06-MAR-2010 15:15

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-1747

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**18-FEB-2010 10:15:42**	**OM_2-18-2010_10-05-11**	**162**	**150**	**108**	**(90%-110%)**	**Yes**
CCV	18-FEB-2010 10:42:23	OM_2-18-2010_10-05-11	101	100	101	(90%-110%)	Yes
CCV	18-FEB-2010 10:54:46	OM_2-18-2010_10-05-11	101	100	101	(90%-110%)	Yes
CCV	18-FEB-2010 11:07:17	OM_2-18-2010_10-05-11	101	100	101	(90%-110%)	Yes
CCV	18-FEB-2010 11:19:46	OM_2-18-2010_10-05-11	103	100	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**18-FEB-2010 10:17:32**	**OM_2-18-2010_10-05-11**	**-0.607**	**10**	**Yes**
CCB	18-FEB-2010 10:44:14	OM_2-18-2010_10-05-11	-0.84	10	Yes
CCB	18-FEB-2010 10:56:36	OM_2-18-2010_10-05-11	-0.857	10	Yes
CCB	18-FEB-2010 11:09:07	OM_2-18-2010_10-05-11	-0.997	10	Yes
CCB	18-FEB-2010 11:21:36	OM_2-18-2010_10-05-11	-1.17	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 953083

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202042855	URF1200957-01	.25	g
MS	1202042851	URF1269274-02	.025	mL
MS	1202042852	URF1269274-02	.025	mL
MSD	1202042853	URF1269274-02	.025	mL
MSD	1202042854	URF1269274-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202042848		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
LCS	1202042855		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.25 g	25 mL	100	SOIL
SAMPLE	246837001		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
DUP	1202042850	246837001	SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
MS	1202042852	246837001	SW846 9010B Prep	17-FEB-2010 15:45	>12	0.52 g	25 mL	48.07692	SOIL
MSD	1202042854	246837001	SW846 9010B Prep	17-FEB-2010 15:45	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246837002		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246837003		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246837004		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246837005		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246837006		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246854011		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.54 g	25 mL	46.2963	SOIL
DUP	1202042849	246854011	SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
MS	1202042851	246854011	SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
MSD	1202042853	246854011	SW846 9010B Prep	17-FEB-2010 15:45	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246870001		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246870002		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246870003		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246870004		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	246870005		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246870006		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	246870007		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246870008		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246870009		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246900001		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.533 g	25 mL	46.90432	MISC SOLID
SAMPLE	246900002		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.581 g	25 mL	43.02926	MISC SOLID
SAMPLE	246901001		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.506 g	25 mL	49.40711	MISC SOLID
SAMPLE	246901002		SW846 9010B Prep	17-FEB-2010 15:45	>12	0.534 g	25 mL	46.81648	MISC SOLID

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
100210-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100217-07	.0375 mL	150 ppb CN Distilled ICV Standard
1270663-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1270669-C	1 mL	51% MgCl2 Soln
1270661-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/18/2010 10:08:32	OM_2-18-2010_10-05-11
150 ppb		1	axc2	2/18/2010 10:09:24	OM_2-18-2010_10-05-11
100 ppb		1	axc2	2/18/2010 10:10:17	OM_2-18-2010_10-05-11
50 ppb		1	axc2	2/18/2010 10:11:10	OM_2-18-2010_10-05-11
10 ppb		1	axc2	2/18/2010 10:12:03	OM_2-18-2010_10-05-11
CRDL 5.0 ppb		1	axc2	2/18/2010 10:12:57	OM_2-18-2010_10-05-11
ICAL-00		1	axc2	2/18/2010 10:13:51	OM_2-18-2010_10-05-11
ICV		1	axc2	2/18/2010 10:15:42	OM_2-18-2010_10-05-11
ICB		1	axc2	2/18/2010 10:17:32	OM_2-18-2010_10-05-11
		1	axc2	2/18/2010 10:19:22	OM_2-18-2010_10-05-11
1202040210	951942	1	axc2	2/18/2010 10:21:11	OM_2-18-2010_10-05-11
1202040217	951942	25	axc2	2/18/2010 10:22:05	OM_2-18-2010_10-05-11
246554001	951942	1	axc2	2/18/2010 10:22:58	OM_2-18-2010_10-05-11
246554002	951942	1	axc2	2/18/2010 10:23:51	OM_2-18-2010_10-05-11
246554003	951942	1	axc2	2/18/2010 10:24:44	OM_2-18-2010_10-05-11
246554004	951942	1	axc2	2/18/2010 10:25:37	OM_2-18-2010_10-05-11
246592005	951942	1	axc2	2/18/2010 10:26:30	OM_2-18-2010_10-05-11
1202040211	951942	1	axc2	2/18/2010 10:27:22	OM_2-18-2010_10-05-11
1202040213	951942	1	axc2	2/18/2010 10:28:15	OM_2-18-2010_10-05-11
1202040215	951942	1	axc2	2/18/2010 10:29:07	OM_2-18-2010_10-05-11
CCV		1	axc2	2/18/2010 10:29:59	OM_2-18-2010_10-05-11
CCB		1	axc2	2/18/2010 10:31:49	OM_2-18-2010_10-05-11
246592006	951942	1	axc2	2/18/2010 10:33:37	OM_2-18-2010_10-05-11
1202040212	951942	1	axc2	2/18/2010 10:34:29	OM_2-18-2010_10-05-11
1202040214	951942	1	axc2	2/18/2010 10:35:21	OM_2-18-2010_10-05-11
1202040216	951942	1	axc2	2/18/2010 10:36:12	OM_2-18-2010_10-05-11
246592007	951942	1	axc2	2/18/2010 10:37:04	OM_2-18-2010_10-05-11
246592008	951942	1	axc2	2/18/2010 10:37:58	OM_2-18-2010_10-05-11
246592009	951942	1	axc2	2/18/2010 10:38:52	OM_2-18-2010_10-05-11
246592010	951942	1	axc2	2/18/2010 10:39:45	OM_2-18-2010_10-05-11
246592011	951942	1	axc2	2/18/2010 10:40:38	OM_2-18-2010_10-05-11
246607001	951942	1	axc2	2/18/2010 10:41:31	OM_2-18-2010_10-05-11
CCV		1	axc2	2/18/2010 10:42:23	OM_2-18-2010_10-05-11
CCB		1	axc2	2/18/2010 10:44:14	OM_2-18-2010_10-05-11
246607002	951942	1	axc2	2/18/2010 10:46:03	OM_2-18-2010_10-05-11
246607003*	951942	1	axc2	2/18/2010 10:46:55	OM_2-18-2010_10-05-11
246607004*	951942	1	axc2	2/18/2010 10:47:48	OM_2-18-2010_10-05-11
246607005	951942	1	axc2	2/18/2010 10:48:41	OM_2-18-2010_10-05-11
246607006	951942	1	axc2	2/18/2010 10:49:33	OM_2-18-2010_10-05-11
246611001	951942	1	axc2	2/18/2010 10:50:26	OM_2-18-2010_10-05-11
246611002	951942	1	axc2	2/18/2010 10:51:18	OM_2-18-2010_10-05-11
246611003	951942	1	axc2	2/18/2010 10:52:10	OM_2-18-2010_10-05-11
1202042848	953084	1	axc2	2/18/2010 10:53:02	OM_2-18-2010_10-05-11
1202042855	953084	25	axc2	2/18/2010 10:53:53	OM_2-18-2010_10-05-11
CCV		1	axc2	2/18/2010 10:54:46	OM_2-18-2010_10-05-11
CCB		1	axc2	2/18/2010 10:56:36	OM_2-18-2010_10-05-11
246837001	953084	1	axc2	2/18/2010 10:58:27	OM_2-18-2010_10-05-11
1202042850	953084	1	axc2	2/18/2010 10:59:21	OM_2-18-2010_10-05-11
1202042852	953084	1	axc2	2/18/2010 11:00:14	OM_2-18-2010_10-05-11
1202042854	953084	1	axc2	2/18/2010 11:01:06	OM_2-18-2010_10-05-11
246837002	953084	1	axc2	2/18/2010 11:02:00	OM_2-18-2010_10-05-11
246837003	953084	1	axc2	2/18/2010 11:02:53	OM_2-18-2010_10-05-11
246837004	953084	1	axc2	2/18/2010 11:03:46	OM_2-18-2010_10-05-11
246837005	953084	1	axc2	2/18/2010 11:04:39	OM_2-18-2010_10-05-11
246837006	953084	1	axc2	2/18/2010 11:05:32	OM_2-18-2010_10-05-11
246854011	953084	1	axc2	2/18/2010 11:06:24	OM_2-18-2010_10-05-11
CCV		1	axc2	2/18/2010 11:07:17	OM_2-18-2010_10-05-11
CCB		1	axc2	2/18/2010 11:09:07	OM_2-18-2010_10-05-11

1202042849	953084	1	axc2	2/18/2010	11:10:55	OM_2-18-2010_10-05-11
1202042851	953084	1	axc2	2/18/2010	11:11:47	OM_2-18-2010_10-05-11
1202042853	953084	1	axc2	2/18/2010	11:12:40	OM_2-18-2010_10-05-11
246870001	953084	1	axc2	2/18/2010	11:13:32	OM_2-18-2010_10-05-11
246870002	953084	1	axc2	2/18/2010	11:14:24	OM_2-18-2010_10-05-11
246870003	953084	1	axc2	2/18/2010	11:15:18	OM_2-18-2010_10-05-11
246870004	953084	1	axc2	2/18/2010	11:16:12	OM_2-18-2010_10-05-11
246870005	953084	1	axc2	2/18/2010	11:17:07	OM_2-18-2010_10-05-11
246870006	953084	1	axc2	2/18/2010	11:18:00	OM_2-18-2010_10-05-11
246870007	953084	1	axc2	2/18/2010	11:18:53	OM_2-18-2010_10-05-11
CCV		1	axc2	2/18/2010	11:19:46	OM_2-18-2010_10-05-11
CCB		1	axc2	2/18/2010	11:21:36	OM_2-18-2010_10-05-11
246870008	953084	1	axc2	2/18/2010	11:23:26	OM_2-18-2010_10-05-11
246870009	953084	1	axc2	2/18/2010	11:24:19	OM_2-18-2010_10-05-11
246900001	953084	1	axc2	2/18/2010	11:25:13	OM_2-18-2010_10-05-11
246900002	953084	1	axc2	2/18/2010	11:26:05	OM_2-18-2010_10-05-11
246901001	953084	1	axc2	2/18/2010	11:26:58	OM_2-18-2010_10-05-11
246901002	953084	1	axc2	2/18/2010	11:27:51	OM_2-18-2010_10-05-11
246607003	951942	1	axc2	2/18/2010	11:28:44	OM_2-18-2010_10-05-11
246607004	951942	1	axc2	2/18/2010	11:29:37	OM_2-18-2010_10-05-11
1202042899	953097	1	axc2	2/18/2010	11:30:29	OM_2-18-2010_10-05-11
1202042900	953097	1	axc2	2/18/2010	11:31:21	OM_2-18-2010_10-05-11
CCV		1	axc2	2/18/2010	11:32:14	OM_2-18-2010_10-05-11
CCB		1	axc2	2/18/2010	11:34:04	OM_2-18-2010_10-05-11
1202042901*	953097	1	axc2	2/18/2010	11:35:52	OM_2-18-2010_10-05-11
246900001*	953097	1	axc2	2/18/2010	11:36:45	OM_2-18-2010_10-05-11
246900002*	953097	1	axc2	2/18/2010	11:37:39	OM_2-18-2010_10-05-11
246901001*	953097	1	axc2	2/18/2010	11:38:33	OM_2-18-2010_10-05-11
246901002*	953097	1	axc2	2/18/2010	11:39:27	OM_2-18-2010_10-05-11
CCV		1	axc2	2/18/2010	11:40:20	OM_2-18-2010_10-05-11
CCB		1	axc2	2/18/2010	11:42:11	OM_2-18-2010_10-05-11

Author: axc2 Date : 2/18/2010

Original Run Filename: OM_2-18-2010_10-05-11.OMN created 2/18/2010 10:05:11
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-18-2010_10-05-11.OMN last modified 2/18/2010 11:43:16
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100218-01	1	S1	200	9.28	2/18/2010@10:08:32			200 ppb
WCN100218-02	1	S2	150	6.90	2/18/2010@10:09:24			150 ppb
WCN100218-03	1	S3	100	4.37	2/18/2010@10:10:17			100 ppb
WCN100218-04	1	S4	50.0	2.39	2/18/2010@10:11:10			50 ppb
WCN100218-05	1	S5	10.0	0.630	2/18/2010@10:12:03			10 ppb
WCN100218-06	1	S6	5.00	0.361	2/18/2010@10:12:57			CRDL 5.0 ppb
WCN100218-08	1	S7	0.00	0.0272	2/18/2010@10:13:51			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99939 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100218-07	1	S8	162	7.44	2/18/2010@10:15:42			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	7.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100218-08	1	S7	-0.607	0.0455	2/18/2010@10:17:32			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.607 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.607 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100218-06	1	S6	6.08	0.350	2/18/2010@10:19:22			
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.08 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.08 > 2.50					
		Message	Pass					
		Action	None					
1202040210|951942|MB	1	1	-1.01	0.0272	2/18/2010@10:21:11			
1202040217||LCS	1	2	38.3	1.82	2/18/2010@10:22:05		25.00	
246554001	1	3	-0.863	0.0339	2/18/2010@10:22:58			
246554002	1	4	-0.890	0.0327	2/18/2010@10:23:51			
246554003	1	5	-0.517	0.0497	2/18/2010@10:24:44			
246554004	1	6	-1.24	0.0165	2/18/2010@10:25:37			
246592005	1	7	0.591	0.100	2/18/2010@10:26:30			
1202040211||DUP	1	8	0.508	0.0963	2/18/2010@10:27:22			
1202040213||MS	1	9	86.8	4.03	2/18/2010@10:28:15			
1202040215||MSD	1	10	87.7	4.07	2/18/2010@10:29:07			
WCN100218-03	1	S3	100	4.65	2/18/2010@10:29:59			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100218-08	1	S7	-0.746	0.0392	2/18/2010@10:31:49			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.746 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.746 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246592006	1	11	0.583	0.0997	2/18/2010@10:33:37			
1202040212||DUP	1	12	0.675	0.104	2/18/2010@10:34:29			
1202040214||MS	1	13	98.7	4.57	2/18/2010@10:35:21			
1202040216||MSD	1	14	96.5	4.47	2/18/2010@10:36:12			
246592007	1	15	0.211	0.0828	2/18/2010@10:37:04			
246592008	1	16	0.633	0.102	2/18/2010@10:37:58			
246592009	1	17	1.69	0.150	2/18/2010@10:38:52			
246592010	1	18	0.740	0.107	2/18/2010@10:39:45			
246592011	1	19	0.405	0.0916	2/18/2010@10:40:38			
246607001	1	20	2.67	0.195	2/18/2010@10:41:31			
WCN100218-03	1	S3	101	4.68	2/18/2010@10:42:23			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100218-08	1	S7	-0.840	0.0349	2/18/2010@10:44:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.840 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.840 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246607002	1	21	2.85	0.203	2/18/2010@10:46:03			
246607003	1	22	1.41	0.137	2/18/2010@10:46:55			
246607004	1	23	5.55	0.326	2/18/2010@10:47:48			
246607005	1	24	0.447	0.0935	2/18/2010@10:48:41			
246607006	1	25	3.74	0.244	2/18/2010@10:49:33			
246611001	1	26	-0.787	0.0374	2/18/2010@10:50:26			
246611002	1	27	-0.830	0.0354	2/18/2010@10:51:18			
246611003	1	28	-1.19	0.0192	2/18/2010@10:52:10			
1202042848|953084|MB	1	29	-1.00	0.0274	2/18/2010@10:53:02			
1202042855||LCS	1	30	29.1	1.40	2/18/2010@10:53:53		25.00	
WCN100218-03	1	S3	101	4.65	2/18/2010@10:54:46			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100218-08	1	S7	-0.857	0.0342	2/18/2010@10:56:36			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-0.857 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.857 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246837001	1	31	-0.928	0.0309	2/18/2010@10:58:27			
1202042850||DUP	1	32	-0.794	0.0370	2/18/2010@10:59:21			
1202042852||MS	1	33	110	5.09	2/18/2010@11:00:14			
1202042854||MSD	1	34	102	4.74	2/18/2010@11:01:06			
246837002	1	35	-1.61	0.00	2/18/2010@11:02:00			
246837003	1	36	-0.339	0.0577	2/18/2010@11:02:53			
246837004	1	37	2.51	0.187	2/18/2010@11:03:46			
246837005	1	38	-0.475	0.0516	2/18/2010@11:04:39			
246837006	1	39	0.371	0.0901	2/18/2010@11:05:32			
246854011	1	40	3.12	0.215	2/18/2010@11:06:24			
WCN100218-03	1	S3	101	4.67	2/18/2010@11:07:17			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100218-08	1	S7	-0.997	0.0278	2/18/2010@11:09:07			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.997 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.997 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202042849||DUP	1	41	3.16	0.217	2/18/2010@11:10:55			
1202042851||MS	1	42	94.9	4.40	2/18/2010@11:11:47			
1202042853||MSD	1	43	104	4.82	2/18/2010@11:12:40			
246870001	1	44	0.237	0.0840	2/18/2010@11:13:32			
246870002	1	45	0.780	0.109	2/18/2010@11:14:24			
246870003	1	46	0.521	0.0969	2/18/2010@11:15:18			
246870004	1	47	-0.493	0.0508	2/18/2010@11:16:12			
246870005	1	48	-0.0192	0.0723	2/18/2010@11:17:07			
246870006	1	49	-1.05	0.0254	2/18/2010@11:18:00			
246870007	1	50	0.231	0.0837	2/18/2010@11:18:53			
WCN100218-03	1	S3	103	4.75	2/18/2010@11:19:46			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100218-08	1	S7	-1.17	0.0200	2/18/2010@11:21:36			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.17 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.17 > -5.00					
		Message	CCB Passed					
		Action	Continue					

246870008	1	51	1.99	0.164	2/18/2010@11:23:26			
246870009	1	52	-0.104	0.0685	2/18/2010@11:24:19			
246900001	1	53	73.4	3.42	2/18/2010@11:25:13			
246900002	1	54	14.4	0.730	2/18/2010@11:26:05			
246901001	1	55	20.8	1.02	2/18/2010@11:26:58			
246901002	1	56	190	8.71	2/18/2010@11:27:51			
246607003|951942|	1	22	1.17	0.126	2/18/2010@11:28:44			
246607004	1	23	0.346	0.0889	2/18/2010@11:29:37			
1202042899|953097|MB	1	57	-1.53	0.00344	2/18/2010@11:30:29			
1202042900||LCS	1	58	-0.759	0.0386	2/18/2010@11:31:21			
WCN100218-03	1	S3	103	4.76	2/18/2010@11:32:14			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100218-08	1	S7	-0.952	0.0299	2/18/2010@11:34:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.952 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.952 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202042901||LCSD	1	59	-0.844	0.0348	2/18/2010@11:35:52			
246900001	1	60	79.5	3.69	2/18/2010@11:36:45			
246900002	1	61	21.1	1.04	2/18/2010@11:37:39			
246901001	1	62	42.4	2.00	2/18/2010@11:38:33			
246901002	1	63	196	8.98	2/18/2010@11:39:27			
WCN100218-03	1	S3	103	4.77	2/18/2010@11:40:20			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100218-08	1	S7	6.95	0.390	2/18/2010@11:42:11			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	6.95 > 5.00					
		Message	CCB Failed					
		Action	Stop Run					
DQM Test: < - Concentration Limit								
		Result:	6.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-18-2010_10-05-11.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A

Author: axc2

Date : 2/18/2010

Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

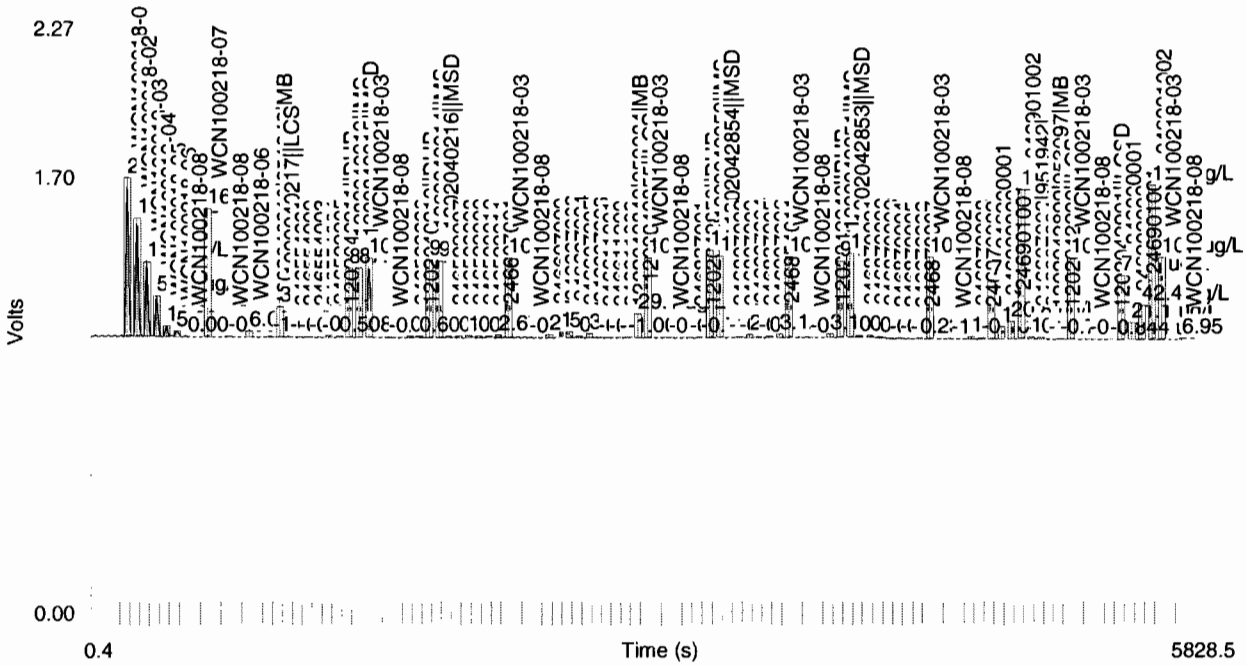


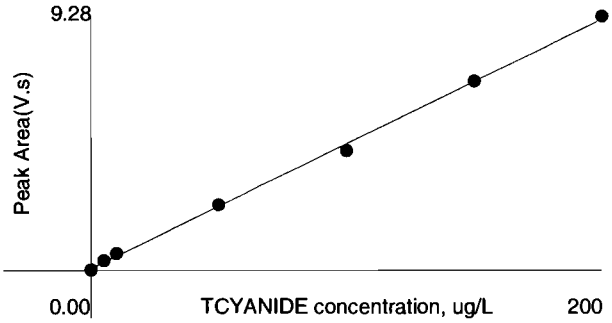
Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.28	0.608	-1.2	2/18/2010	10:09:35
2	150	1	6.90	0.453	-0.0	2/18/2010	10:10:27
3	100	1	4.37	0.285	5.5	2/18/2010	10:11:20
4	50.0	1	2.39	0.155	-1.6	2/18/2010	10:12:13
5	10.0	1	0.630	0.0408	-18.4	2/18/2010	10:13:06
6	5.00	1	0.361	0.0225	-18.6	2/18/2010	10:14:00
7	0.00	1	0.0272	0.00121		2/18/2010	10:14:54

Author: axc2

Date : 2/18/2010

Figure 1: TCYANIDE



Area = 0.0455 * Conc + 0.0773
Conc = 22.0 * Area - 1.61
Correlation Coefficient (r) = 0.99939

No Weighting

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1747-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	953089	**Method:**	SW9012A Cyanide and Total
Prep Batch :	953087	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
246838001	RE15-10-8085
1202042861	Method Blank (MB)
1202042862	246842001(RE16-10-1239) Sample Duplicate (DUP)
1202042863	246878001(NPDES03A185-10-12209) Sample Duplicate (DUP)
1202042864	246842001(RE16-10-1239) Matrix Spike (MS)
1202042865	246878001(NPDES03A185-10-12209) Matrix Spike (MS)
1202042866	246842001(RE16-10-1239) Matrix Spike Duplicate (MSD)
1202042867	246878001(NPDES03A185-10-12209) Matrix Spike Duplicate (MSD)
1202042868	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 246842001 (RE16-10-1239) and 246878001 (NPDES03A185-10-12209).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202042863 (NPDES03A185-10-12209).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

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

Review Validation:

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

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

Reviewer: _____ **Date:** 09Mar10

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1747-1 GEL Work Order: 246838

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 6, 2010

Client SDG: 10-1747-1

Client Sample ID:	RE15-10-8085	Project:	LANL01004
Sample ID:	246838001	Client ID:	LANL010
Matrix:	W		
Collect Date:	08-FEB-10 12:00		
Receive Date:	11-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/17/10	1104	953089	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/16/10	1532	953087

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 6, 2010

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

Contact: Ms. Joylene Valdez

Workorder: 246838

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 953089											
QC1202042862 246842001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	02/17/10 11:06
QC1202042863 246878001 DUP											
Cyanide, Total		U	ND	J	2.26	ug/L	200		(+/-5.00)		02/17/10 11:17
QC1202042868 LCS											
Cyanide, Total	50.0				53.6	ug/L		107	(90%-110%)		02/17/10 10:57
QC1202042861 MB											
Cyanide, Total				U	5.00	ug/L					02/17/10 10:56
QC1202042864 246842001 MS											
Cyanide, Total	100	U	ND		109	ug/L		109	(60%-144%)		02/17/10 11:07
QC1202042865 246878001 MS											
Cyanide, Total	100	U	ND		94.4	ug/L		93.7	(60%-144%)		02/17/10 11:18
QC1202042866 246842001 MSD											
Cyanide, Total	100	U	ND		109	ug/L	0.00	109	(0%-20%)		02/17/10 11:08
QC1202042867 246878001 MSD											
Cyanide, Total	100	U	ND		112	ug/L	17.1	111	(0%-20%)		02/17/10 11:19

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.

QC Summary

Workorder: **246838**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 06-MAR-2010 15:15

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1747-1

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**17-FEB-2010 10:20:19**	**OM_2-17-2010_10-09-49**	**162**	**150**	**108**	**(90%-110%)**	**Yes**
CCV	17-FEB-2010 10:47:02	OM_2-17-2010_10-09-49	102	100	102	(90%-110%)	Yes
CCV	17-FEB-2010 10:59:25	OM_2-17-2010_10-09-49	101	100	101	(90%-110%)	Yes
CCV	17-FEB-2010 11:11:56	OM_2-17-2010_10-09-49	102	100	102	(90%-110%)	Yes
CCV	17-FEB-2010 11:24:24	OM_2-17-2010_10-09-49	102	100	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**17-FEB-2010 10:22:09**	**OM_2-17-2010_10-09-49**	**-1.26**	**10**	**Yes**
CCB	17-FEB-2010 10:48:52	OM_2-17-2010_10-09-49	-1.04	10	Yes
CCB	17-FEB-2010 11:01:15	OM_2-17-2010_10-09-49	-1.09	10	Yes
CCB	17-FEB-2010 11:13:46	OM_2-17-2010_10-09-49	-1.37	10	Yes
CCB	17-FEB-2010 11:26:15	OM_2-17-2010_10-09-49	-1.32	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 953087

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202042868	URF1269274-02	.0125	mL
MS	1202042864	URF1269274-02	.025	mL
MS	1202042865	URF1269274-02	.025	mL
MSD	1202042866	URF1269274-02	.025	mL
MSD	1202042867	URF1269274-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202042861		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
LCS	1202042868		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246531002		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246755001		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246755002		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246838001		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246842001		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
DUP	1202042862	246842001	SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
MS	1202042864	246842001	SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
MSD	1202042866	246842001	SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246844001		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246853001		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246871001		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246878001		EPA 335.4	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WASTE WATER
DUP	1202042863	246878001	EPA 335.4	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WASTE WATER
MS	1202042865	246878001	EPA 335.4	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WASTE WATER
MSD	1202042867	246878001	EPA 335.4	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	246882001		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246882002		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246883001		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246883002		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246883003		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246883004		SW846 9010B Prep	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WATER
SAMPLE	246894001		EPA 335.4	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	246923002		EPA 335.4	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	246924002		EPA 335.4	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	246937002		EPA 335.4	16-FEB-2010 15:32	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	247024001		SW846 9010B Prep	16-FEB-2010 15:32	9	25 mL	25 mL	1	MISC LIQUID

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
100210-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100216-07	.0375 mL	150 ppb CN Distilled ICV Standard
1270663-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1270669-C	1 mL	51% MgCl2 Soln
1270661-C	1.25 mL	Bismuth Nitrate Solution

Comments Sample 247024001 was not preserved and had a pH of 9. The PM was notified and instructed to run as is.

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/17/2010 10:13:10	OM_2-17-2010_10-09-49
150 ppb		1	axc2	2/17/2010 10:14:02	OM_2-17-2010_10-09-49
100 ppb		1	axc2	2/17/2010 10:14:54	OM_2-17-2010_10-09-49
50 ppb		1	axc2	2/17/2010 10:15:47	OM_2-17-2010_10-09-49
10 ppb		1	axc2	2/17/2010 10:16:40	OM_2-17-2010_10-09-49
CRDL 5.0 ppb		1	axc2	2/17/2010 10:17:34	OM_2-17-2010_10-09-49
ICAL-00		1	axc2	2/17/2010 10:18:29	OM_2-17-2010_10-09-49
ICV		1	axc2	2/17/2010 10:20:19	OM_2-17-2010_10-09-49
ICB		1	axc2	2/17/2010 10:22:09	OM_2-17-2010_10-09-49
		1	axc2	2/17/2010 10:23:59	OM_2-17-2010_10-09-49
1202036044	950203	1	axc2	2/17/2010 10:25:48	OM_2-17-2010_10-09-49
1202036051	950203	25	axc2	2/17/2010 10:26:42	OM_2-17-2010_10-09-49
246432001	950203	1	axc2	2/17/2010 10:27:35	OM_2-17-2010_10-09-49
246432002	950203	1	axc2	2/17/2010 10:28:28	OM_2-17-2010_10-09-49
246432003	950203	1	axc2	2/17/2010 10:29:21	OM_2-17-2010_10-09-49
246432004	950203	1	axc2	2/17/2010 10:30:14	OM_2-17-2010_10-09-49
246432005	950203	1	axc2	2/17/2010 10:31:07	OM_2-17-2010_10-09-49
246432006	950203	1	axc2	2/17/2010 10:31:59	OM_2-17-2010_10-09-49
246432007	950203	1	axc2	2/17/2010 10:32:51	OM_2-17-2010_10-09-49
246432008	950203	1	axc2	2/17/2010 10:33:44	OM_2-17-2010_10-09-49
CCV		1	axc2	2/17/2010 10:34:36	OM_2-17-2010_10-09-49
CCB		1	axc2	2/17/2010 10:36:26	OM_2-17-2010_10-09-49
246432009	950203	1	axc2	2/17/2010 10:38:15	OM_2-17-2010_10-09-49
246432010	950203	1	axc2	2/17/2010 10:39:07	OM_2-17-2010_10-09-49
246443005	950203	1	axc2	2/17/2010 10:39:59	OM_2-17-2010_10-09-49
1202036045	950203	1	axc2	2/17/2010 10:40:50	OM_2-17-2010_10-09-49
1202036047	950203	1	axc2	2/17/2010 10:41:41	OM_2-17-2010_10-09-49
1202036049	950203	1	axc2	2/17/2010 10:42:36	OM_2-17-2010_10-09-49
246477002	950203	1	axc2	2/17/2010 10:43:29	OM_2-17-2010_10-09-49
1202036046	950203	1	axc2	2/17/2010 10:44:22	OM_2-17-2010_10-09-49
1202036048	950203	1	axc2	2/17/2010 10:45:16	OM_2-17-2010_10-09-49
1202036050	950203	1	axc2	2/17/2010 10:46:09	OM_2-17-2010_10-09-49
CCV		1	axc2	2/17/2010 10:47:02	OM_2-17-2010_10-09-49
CCB		1	axc2	2/17/2010 10:48:52	OM_2-17-2010_10-09-49
246754005	950203	1	axc2	2/17/2010 10:50:42	OM_2-17-2010_10-09-49
246754006	950203	1	axc2	2/17/2010 10:51:34	OM_2-17-2010_10-09-49
246754007	950203	1	axc2	2/17/2010 10:52:27	OM_2-17-2010_10-09-49
246754008	950203	1	axc2	2/17/2010 10:53:19	OM_2-17-2010_10-09-49
246754009	950203	1	axc2	2/17/2010 10:54:13	OM_2-17-2010_10-09-49
246754010	950203	1	axc2	2/17/2010 10:55:04	OM_2-17-2010_10-09-49
246754011	950203	1	axc2	2/17/2010 10:55:57	OM_2-17-2010_10-09-49
1202042861	953089	1	axc2	2/17/2010 10:56:49	OM_2-17-2010_10-09-49
1202042868	953089	1	axc2	2/17/2010 10:57:40	OM_2-17-2010_10-09-49
246531002	953089	1	axc2	2/17/2010 10:58:33	OM_2-17-2010_10-09-49
CCV		1	axc2	2/17/2010 10:59:25	OM_2-17-2010_10-09-49
CCB		1	axc2	2/17/2010 11:01:15	OM_2-17-2010_10-09-49
246755001	953089	1	axc2	2/17/2010 11:03:05	OM_2-17-2010_10-09-49
246755002	953089	1	axc2	2/17/2010 11:03:58	OM_2-17-2010_10-09-49
246838001	953089	1	axc2	2/17/2010 11:04:52	OM_2-17-2010_10-09-49
246842001	953089	1	axc2	2/17/2010 11:05:45	OM_2-17-2010_10-09-49
1202042862	953089	1	axc2	2/17/2010 11:06:39	OM_2-17-2010_10-09-49
1202042864	953089	1	axc2	2/17/2010 11:07:32	OM_2-17-2010_10-09-49
1202042866	953089	1	axc2	2/17/2010 11:08:26	OM_2-17-2010_10-09-49
246844001	953089	1	axc2	2/17/2010 11:09:18	OM_2-17-2010_10-09-49
246853001	953089	1	axc2	2/17/2010 11:10:11	OM_2-17-2010_10-09-49
246871001	953089	1	axc2	2/17/2010 11:11:04	OM_2-17-2010_10-09-49
CCV		1	axc2	2/17/2010 11:11:56	OM_2-17-2010_10-09-49
CCB		1	axc2	2/17/2010 11:13:46	OM_2-17-2010_10-09-49

247024001	953089	1	axc2	2/17/2010	11:15:35	OM_2-17-2010_10-09-49
246878001	953089	1	axc2	2/17/2010	11:16:27	OM_2-17-2010_10-09-49
1202042863	953089	1	axc2	2/17/2010	11:17:19	OM_2-17-2010_10-09-49
1202042865	953089	1	axc2	2/17/2010	11:18:12	OM_2-17-2010_10-09-49
1202042867	953089	1	axc2	2/17/2010	11:19:03	OM_2-17-2010_10-09-49
246882001	953089	1	axc2	2/17/2010	11:19:56	OM_2-17-2010_10-09-49
246882002	953089	1	axc2	2/17/2010	11:20:50	OM_2-17-2010_10-09-49
246883001	953089	1	axc2	2/17/2010	11:21:44	OM_2-17-2010_10-09-49
246883002	953089	1	axc2	2/17/2010	11:22:39	OM_2-17-2010_10-09-49
246883003	953089	1	axc2	2/17/2010	11:23:31	OM_2-17-2010_10-09-49
CCV		1	axc2	2/17/2010	11:24:24	OM_2-17-2010_10-09-49
CCB		1	axc2	2/17/2010	11:26:15	OM_2-17-2010_10-09-49
246883004	953089	1	axc2	2/17/2010	11:28:04	OM_2-17-2010_10-09-49
246894001	953089	1	axc2	2/17/2010	11:28:57	OM_2-17-2010_10-09-49
246923002	953089	1	axc2	2/17/2010	11:29:51	OM_2-17-2010_10-09-49
246924002	953089	1	axc2	2/17/2010	11:30:44	OM_2-17-2010_10-09-49
246937002	953089	1	axc2	2/17/2010	11:31:37	OM_2-17-2010_10-09-49
247024001	953089	2	axc2	2/17/2010	11:32:29	OM_2-17-2010_10-09-49
1202040269	951961	1	axc2	2/17/2010	11:33:22	OM_2-17-2010_10-09-49
1202040276	951961	1	axc2	2/17/2010	11:34:15	OM_2-17-2010_10-09-49
246530001	951961	1	axc2	2/17/2010	11:35:07	OM_2-17-2010_10-09-49
246530002	951961	1	axc2	2/17/2010	11:36:00	OM_2-17-2010_10-09-49
CCV		1	axc2	2/17/2010	11:36:52	OM_2-17-2010_10-09-49
CCB		1	axc2	2/17/2010	11:38:42	OM_2-17-2010_10-09-49
246555001	951961	1	axc2	2/17/2010	11:40:30	OM_2-17-2010_10-09-49
246560001	951961	1	axc2	2/17/2010	11:41:24	OM_2-17-2010_10-09-49
246560002	951961	1	axc2	2/17/2010	11:42:19	OM_2-17-2010_10-09-49
246571001	951961	1	axc2	2/17/2010	11:43:12	OM_2-17-2010_10-09-49
246571002	951961	1	axc2	2/17/2010	11:44:06	OM_2-17-2010_10-09-49
246574001	951961	1	axc2	2/17/2010	11:45:00	OM_2-17-2010_10-09-49
1202040271	951961	1	axc2	2/17/2010	11:45:53	OM_2-17-2010_10-09-49
1202040273	951961	1	axc2	2/17/2010	11:46:47	OM_2-17-2010_10-09-49
1202040275	951961	1	axc2	2/17/2010	11:47:40	OM_2-17-2010_10-09-49
246590001	951961	1	axc2	2/17/2010	11:48:33	OM_2-17-2010_10-09-49
CCV		1	axc2	2/17/2010	11:49:25	OM_2-17-2010_10-09-49
CCB		1	axc2	2/17/2010	11:51:16	OM_2-17-2010_10-09-49
1202040270	951961	1	axc2	2/17/2010	11:53:04	OM_2-17-2010_10-09-49
1202040272	951961	1	axc2	2/17/2010	11:53:58	OM_2-17-2010_10-09-49
1202040274	951961	1	axc2	2/17/2010	11:54:49	OM_2-17-2010_10-09-49
246591001	951961	1	axc2	2/17/2010	11:55:42	OM_2-17-2010_10-09-49
246606001	951961	1	axc2	2/17/2010	11:56:34	OM_2-17-2010_10-09-49
246613001	951961	1	axc2	2/17/2010	11:57:27	OM_2-17-2010_10-09-49
246710001	951961	1	axc2	2/17/2010	11:58:22	OM_2-17-2010_10-09-49
246714002	951961	1	axc2	2/17/2010	11:59:16	OM_2-17-2010_10-09-49
246724001	951961	1	axc2	2/17/2010	12:00:10	OM_2-17-2010_10-09-49
246724002	951961	1	axc2	2/17/2010	12:01:04	OM_2-17-2010_10-09-49
CCV		1	axc2	2/17/2010	12:01:56	OM_2-17-2010_10-09-49
CCB		1	axc2	2/17/2010	12:03:47	OM_2-17-2010_10-09-49
246742001	951961	1	axc2	2/17/2010	12:05:37	OM_2-17-2010_10-09-49
246742002	951961	1	axc2	2/17/2010	12:06:30	OM_2-17-2010_10-09-49
246753001	951961	1	axc2	2/17/2010	12:07:23	OM_2-17-2010_10-09-49
246766001	951961	1	axc2	2/17/2010	12:08:17	OM_2-17-2010_10-09-49
CCV		1	axc2	2/17/2010	12:09:10	OM_2-17-2010_10-09-49
CCB		1	axc2	2/17/2010	12:11:00	OM_2-17-2010_10-09-49

Author: axc2 Date : 2/17/2010

Original Run Filename: OM_2-17-2010_10-09-49.OMN created 2/17/2010 10:09:49
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-17-2010_10-09-49.OMN last modified 2/17/2010 12:12:05
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100217-01	1	S1	200	9.92	2/17/2010@10:13:10			200 ppb
WCN100217-02	1	S2	150	7.45	2/17/2010@10:14:02			150 ppb
WCN100217-03	1	S3	100	4.78	2/17/2010@10:14:54			100 ppb
WCN100217-04	1	S4	50.0	2.59	2/17/2010@10:15:47			50 ppb
WCN100217-05	1	S5	10.0	0.647	2/17/2010@10:16:40			10 ppb
WCN100217-06	1	S6	5.00	0.374	2/17/2010@10:17:34			CRDL 5.0 ppb
WCN100217-08	1	S7	0.00	0.0267	2/17/2010@10:18:29			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99970 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100217-07	1	S8	162	7.99	2/17/2010@10:20:19			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	7.7 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.7 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100217-08	1	S7	-1.26	0.0231	2/17/2010@10:22:09			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.26 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.26 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100217-06	1	S6	6.01	0.379	2/17/2010@10:23:59			
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.01 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.01 > 2.50					
		Message	Pass					
		Action	None					
1202036044|950203|MB	1	1	-1.71	0.00125	2/17/2010@10:25:48			
1202036051||LCS	1	2	29.7	1.54	2/17/2010@10:26:42		25.00	
246432001	1	3	-0.857	0.0429	2/17/2010@10:27:35			
246432002	1	4	-1.21	0.0258	2/17/2010@10:28:28			
246432003	1	5	-1.10	0.0307	2/17/2010@10:29:21			
246432004	1	6	-1.20	0.0260	2/17/2010@10:30:14			
246432005	1	7	-1.72	4.79e-4	2/17/2010@10:31:07			
246432006	1	8	1.78	0.172	2/17/2010@10:31:59			
246432007	1	9	-0.828	0.0443	2/17/2010@10:32:51			
246432008	1	10	-0.968	0.0374	2/17/2010@10:33:44			
WCN100217-03	1	S3	101	5.01	2/17/2010@10:34:36			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.8 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100217-08	1	S7	-1.10	0.0308	2/17/2010@10:36:26			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.10 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.10 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246432009	1	11	-0.127	0.0786	2/17/2010@10:38:15			
246432010	1	12	-1.04	0.0339	2/17/2010@10:39:07			
246443005	1	13	-0.966	0.0376	2/17/2010@10:39:59			
1202036045||DUP	1	14	-0.853	0.0430	2/17/2010@10:40:50			
1202036047||MS	1	15	103	5.11	2/17/2010@10:41:41			
1202036049||MSD	1	16	98.4	4.90	2/17/2010@10:42:36			
246477002	1	17	0.420	0.105	2/17/2010@10:43:29			
1202036046||DUP	1	18	0.202	0.0947	2/17/2010@10:44:22			
1202036048||MS	1	19	96.1	4.79	2/17/2010@10:45:16			
1202036050||MSD	1	20	92.0	4.59	2/17/2010@10:46:09			
WCN100217-03	1	S3	102	5.05	2/17/2010@10:47:02			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100217-08	1	S7	-1.04	0.0339	2/17/2010@10:48:52			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.04 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.04 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246754005	1	21	-0.582	0.0563	2/17/2010@10:50:42			
246754006	1	22	-0.462	0.0622	2/17/2010@10:51:34			
246754007	1	23	2.95	0.229	2/17/2010@10:52:27			
246754008	1	24	-0.140	0.0779	2/17/2010@10:53:19			
246754009	1	25	-0.622	0.0544	2/17/2010@10:54:13			
246754010	1	26	-0.857	0.0429	2/17/2010@10:55:04			
246754011	1	27	-1.43	0.0147	2/17/2010@10:55:57			
1202042861|953089|MB	1	28	-1.74	-2.03e-4	2/17/2010@10:56:49			
1202042868||LCS	1	29	53.6	2.71	2/17/2010@10:57:40			
246531002	1	30	-0.820	0.0447	2/17/2010@10:58:33			
WCN100217-03	1	S3	101	5.02	2/17/2010@10:59:25			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100217-08	1	S7	-1.09	0.0315	2/17/2010@11:01:15			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.09 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.09 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246755001	1	31	-1.29	0.0217	2/17/2010@11:03:05			
246755002	1	32	-1.44	0.0142	2/17/2010@11:03:58			
246838001	1	33	-1.88	-0.00736	2/17/2010@11:04:52			
246842001	1	34	-1.60	0.00632	2/17/2010@11:05:45			
1202042862||DUP	1	35	-1.47	0.0130	2/17/2010@11:06:39			
1202042864||MS	1	36	109	5.40	2/17/2010@11:07:32			
1202042866||MSD	1	37	109	5.41	2/17/2010@11:08:26			
246844001	1	38	-1.05	0.0336	2/17/2010@11:09:18			
246853001	1	39	-0.789	0.0462	2/17/2010@11:10:11			
246871001	1	40	-1.72	4.87e-4	2/17/2010@11:11:04			
WCN100217-03	1	S3	102	5.09	2/17/2010@11:11:56			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100217-08	1	S7	-1.37	0.0175	2/17/2010@11:13:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.37 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.37 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247024001	1	55	275	13.5	2/17/2010@11:15:35			
246878001	1	41	0.661	0.117	2/17/2010@11:16:27			
1202042863||DUP	1	42	2.26	0.196	2/17/2010@11:17:19			
1202042865||MS	1	43	94.4	4.70	2/17/2010@11:18:12			
1202042867||MSD	1	44	112	5.55	2/17/2010@11:19:03			
246882001	1	45	-1.23	0.0244	2/17/2010@11:19:56			
246882002	1	46	-0.923	0.0397	2/17/2010@11:20:50			
246883001	1	47	-1.07	0.0323	2/17/2010@11:21:44			
246883002	1	48	-1.04	0.0339	2/17/2010@11:22:39			
246883003	1	49	-1.71	0.00134	2/17/2010@11:23:31			
WCN100217-03	1	S3	102	5.07	2/17/2010@11:24:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100217-08	1	S7	-1.32	0.0204	2/17/2010@11:26:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.32 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.32 > -5.00					
		Message	CCB Passed					
		Action	Continue					

246883004	1	50	-1.17	0.0275	2/17/2010@11:28:04			
246894001	1	51	6.46	0.401	2/17/2010@11:28:57			
246923002	1	52	0.530	0.111	2/17/2010@11:29:51			
246924002	1	53	0.751	0.122	2/17/2010@11:30:44			
246937002	1	54	21.6	1.14	2/17/2010@11:31:37			
247024001	1	55	109	5.44	2/17/2010@11:32:29		2.00	
1202040269|951961|MB	1	56	-1.06	0.0328	2/17/2010@11:33:22			
1202040276||LCS	1	57	47.2	2.39	2/17/2010@11:34:15			
246530001	1	58	-1.73	3.57e-4	2/17/2010@11:35:07			
246530002	1	59	-1.73	1.71e-4	2/17/2010@11:36:00			
WCN100217-03	1	S3	102	5.07	2/17/2010@11:36:52			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100217-08	1	S7	-1.32	0.0204	2/17/2010@11:38:42			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.32 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.32 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246555001	1	60	-1.26	0.0234	2/17/2010@11:40:30			
246560001	1	61	-2.04	-0.0150	2/17/2010@11:41:24			
246560002	1	62	-0.699	0.0506	2/17/2010@11:42:19			
246571001	1	63	-1.74	-1.65e-4	2/17/2010@11:43:12			
246571002	1	64	-1.89	-0.00753	2/17/2010@11:44:06			
246574001	1	65	1.51	0.159	2/17/2010@11:45:00			
1202040271||DUP	1	66	1.22	0.145	2/17/2010@11:45:53			
1202040273||MS	1	67	107	5.30	2/17/2010@11:46:47			
1202040275||MSD	1	68	112	5.54	2/17/2010@11:47:40			
246590001	1	69	-1.19	0.0264	2/17/2010@11:48:33			
WCN100217-03	1	S3	102	5.05	2/17/2010@11:49:25			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	1.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100217-08	1	S7	-1.67	0.00297	2/17/2010@11:51:16			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.67 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.67 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202040270||DUP	1	70	-1.23	0.0246	2/17/2010@11:53:04			
1202040272||MS	1	71	109	5.40	2/17/2010@11:53:58			
1202040274||MSD	1	72	101	5.03	2/17/2010@11:54:49			
246591001	1	73	-1.34	0.0195	2/17/2010@11:55:42			
246606001	1	74	-1.56	0.00833	2/17/2010@11:56:34			
246613001	1	75	-1.37	0.0180	2/17/2010@11:57:27			
246710001	1	76	-1.59	0.00682	2/17/2010@11:58:22			
246714002	1	77	19.8	1.05	2/17/2010@11:59:16			

246724001	1	78	-1.32	0.0204	2/17/2010@12:00:10			
246724002	1	79	-1.37	0.0180	2/17/2010@12:01:04			
WCN100217-03	1	S3	103	5.11	2/17/2010@12:01:56			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100217-08	1	S7	-1.03	0.0346	2/17/2010@12:03:47			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.03 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.03 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246742001	1	80	-1.63	0.00514	2/17/2010@12:05:37			
246742002	1	81	-1.73	3.14e-4	2/17/2010@12:06:30			
246753001	1	82	-1.60	0.00637	2/17/2010@12:07:23			
246766001	1	83	-1.39	0.0169	2/17/2010@12:08:17			
WCN100217-03	1	S3	103	5.13	2/17/2010@12:09:10			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100217-08	1	S7	-1.74	-1.58e-4	2/17/2010@12:11:00			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.74 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.74 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-17-2010_10-09-49.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/17/2010

Channel 1: Current View

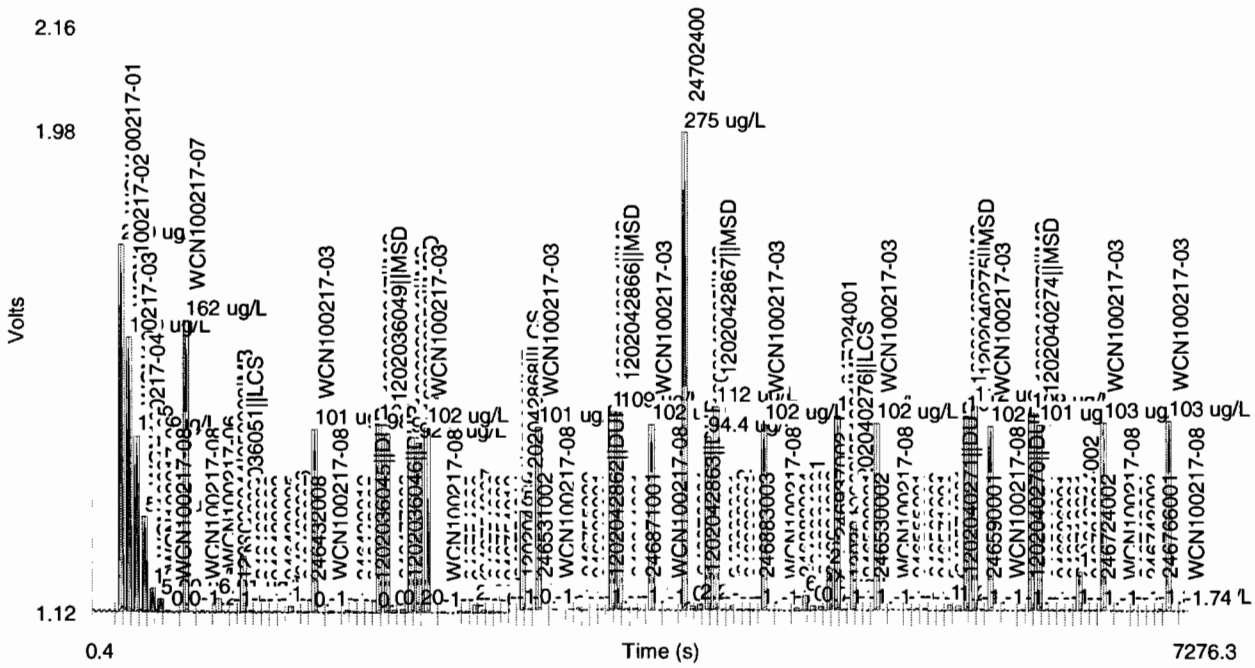
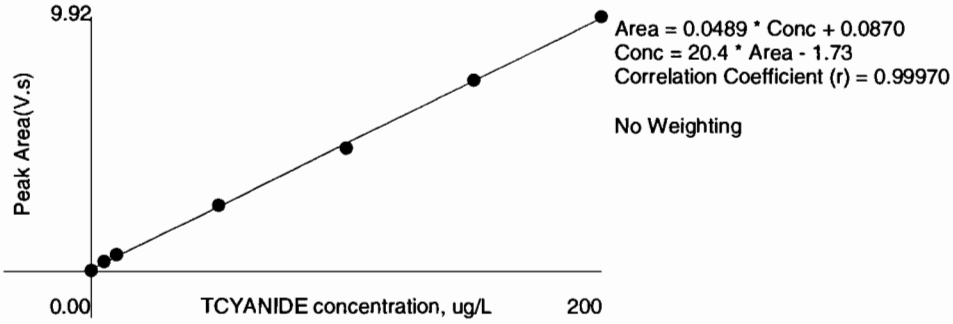


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.92	0.646	-0.6	2/17/2010	10:14:13
2	150	1	7.45	0.484	-0.3	2/17/2010	10:15:05
3	100	1	4.78	0.310	3.9	2/17/2010	10:15:57
4	50.0	1	2.59	0.169	-2.1	2/17/2010	10:16:50
5	10.0	1	0.647	0.0416	-12.4	2/17/2010	10:17:43
6	5.00	1	0.374	0.0226	-13.0	2/17/2010	10:18:37
7	0.00	1	0.0267	0.00251		2/17/2010	10:19:31

Figure 1: TCYANIDE



RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1747

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	952619

Sample ID	Client ID
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987
246837005	RE15-10-7988
246837006	RE15-10-7989
1202041778	246837001(RE15-10-7992) Sample Duplicate (DUP)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 246837001 (RE15-10-7992). The QC was from LANL work order 246837.

QC Information
All of the QC samples met the required acceptance limits.

CSU

Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

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

Additional Comments
Samples 246837002 (RE15-10-7991), 246837004 (RE15-10-7987) and 246837006 (RE15-10-7989) were very wet. They could not be thoroughly homogenized prior to taking our aliquot.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	953337
Prep Batch Number:	952619

Sample ID	Client ID
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987
246837005	RE15-10-7988
246837006	RE15-10-7989
1202043669	Method Blank (MB)
1202043670	246837001(RE15-10-7992) Sample Duplicate (DUP)
1202043671	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202043669 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246837001 (RE15-10-7992). The QC was from LANL work order 246837.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

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

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample 246837006 (RE15-10-7989) did not meet the client's yield requirement. However, there are 400 tracer counts, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	953338
Prep Batch Number:	952619

Sample ID	Client ID
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987
246837005	RE15-10-7988
246837006	RE15-10-7989
1202043672	Method Blank (MB)
1202043673	246837001(RE15-10-7992) Sample Duplicate (DUP)
1202043674	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202043672 (MB) was changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 246837001 (RE15-10-7992). The QC was from LANL work order 246837.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Pu-239/240 blank, 1202043672 (MB), result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

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

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	953339
Prep Batch Number:	952619

Sample ID	Client ID
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987

246837005	RE15-10-7988
246837006	RE15-10-7989
1202043678	Method Blank (MB)
1202043679	246837001(RE15-10-7992) Sample Duplicate (DUP)
1202043680	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202043678 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246837001 (RE15-10-7992). The QC was from LANL work order 246837.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-238 blank, 1202043678 (MB), result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 246837004 (RE15-10-7987) was recounted due to a peak shift.

Miscellaneous Information:

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

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample 246837001 (RE15-10-7992) did not meet the client's yield requirement. However, there are 400 tracer counts, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	952641
Prep Batch Number:	952619

Sample ID	Client ID
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987
246837005	RE15-10-7988
246837006	RE15-10-7989
1202041817	Method Blank (MB)
1202041818	246847001(RE16-10-2828) Sample Duplicate (DUP)
1202041819	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, June 2009, October 2009, November 2009, December 2009, January 2010 and February 2010.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 246847001 (RE16-10-2828). The QC was from LANL work order 246847.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The method blank 1202041817 (MB) result is greater than 1.65 times the CSU but less than the MDC for Ra-228, U-235, and Y-88.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

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

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The method blank 1202041817 (MB) result is greater than the decision level but less than the MDC for Ra-228, U-235, Y-88.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	246837001	RE15-10-7992
			246837002	RE15-10-7991
			246837003	RE15-10-7990
			246837004	RE15-10-7987

			246837005	RE15-10-7988
			246837006	RE15-10-7989
			1202041818	RE16-10-2828(246847001DUP)
		Cadmium-109	246837001	RE15-10-7992
			246837002	RE15-10-7991
			246837003	RE15-10-7990
			246837004	RE15-10-7987
			246837005	RE15-10-7988
			246837006	RE15-10-7989
			1202041818	RE16-10-2828(246847001DUP)
		Mercury-203	246837003	RE15-10-7990
		Radium-224	246837001	RE15-10-7992
			246837002	RE15-10-7991
			246837003	RE15-10-7990
			246837004	RE15-10-7987
			246837005	RE15-10-7988
			246837006	RE15-10-7989
			1202041818	RE16-10-2828(246847001DUP)
UI	Data rejected due to low abundance.	Cesium-134	246837001	RE15-10-7992
			246837003	RE15-10-7990
			246837005	RE15-10-7988
		Strontium-85	246837002	RE15-10-7991
			246837004	RE15-10-7987
			1202041818	RE16-10-2828(246847001DUP)

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	953111

Sample ID	Client ID
246837001	RE15-10-7992
246837002	RE15-10-7991
246837003	RE15-10-7990
246837004	RE15-10-7987
246837005	RE15-10-7988
246837006	RE15-10-7989
1202042933	Method Blank (MB)
1202042934	246557001(RE15-10-8363) Sample Duplicate (DUP)
1202042935	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 246557001 (RE15-10-8363). The QC was from LANL work order 246557.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

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

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

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

Review Validation:

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

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

Reviewer/Date: Jhe Austin 3/5/2010

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1747 GEL Work Order: 246837

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Theresa L. Austin

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7992
Sample ID: 246837001
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 9.14%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00181	0.024	+/-0.00781	0.050	pCi/g		CXM2	02/27/10	1956	953337	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00118	0.0192	+/-0.00611	0.050	pCi/g		CXM2	02/27/10	1956	953338	3
Plutonium-239/240	U	-0.00118	0.0145	+/-0.00311	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.776	0.144	+/-0.0883	0.100	pCi/g		CXM2	02/27/10	1644	953339	4
Uranium-235/236	U	0.0141	0.0916	+/-0.010	0.100	pCi/g						
Uranium-238		0.786	0.0981	+/-0.0895	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0173	0.175	+/-0.0513	0.200	pCi/g		MXR1	02/23/10	1205	952641	5
Bismuth-211	UI	3.57	0.281	+/-0.303		pCi/g						
Bismuth-214		1.11	0.0999	+/-0.0911	0.200	pCi/g						
Cadmium-109	UI	3.01	1.08	+/-0.393		pCi/g						
Cerium-139	U	0.00164	0.0417	+/-0.0118	0.050	pCi/g						
Cesium-134	UI	0.152	0.0838	+/-0.0303	0.100	pCi/g						
Cesium-137	U	-0.0187	0.0558	+/-0.0175	0.100	pCi/g						
Cobalt-60	U	0.0015	0.0561	+/-0.0171	0.100	pCi/g						
Europium-152	U	-0.0537	0.129	+/-0.0409	0.200	pCi/g						
Lanthanum-140	U	-0.063	0.105	+/-0.0361		pCi/g						
Lead-212		1.77	0.0791	+/-0.134	0.100	pCi/g						
Lead-214		1.24	0.098	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.0371	0.0579	+/-0.0215	0.100	pCi/g						
Potassium-40		35.9	0.412	+/-1.78	1.00	pCi/g						
Radium-223	U	0.0481	0.907	+/-0.305		pCi/g						
Radium-224	UI	4.86	0.900	+/-0.697		pCi/g						
Radium-226		1.11	0.0999	+/-0.0911		pCi/g						
Radium-228		1.94	0.184	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.134	0.436	+/-0.136	0.800	pCi/g						

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7992
Sample ID: 246837001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	0.0109	0.0701	+/-0.0209	0.080	pCi/g						
Strontium-85	U	0.0279	0.0562	+/-0.0175		pCi/g						
Thallium-208		0.541	0.050	+/-0.0489	0.080	pCi/g						
Thorium-227	U	-0.132	0.555	+/-0.167		pCi/g						
Thorium-231	U	0.0481	0.907	+/-0.305		pCi/g						
Thorium-234	U	0.763	1.69	+/-0.482	2.00	pCi/g						
Tin-113	U	-0.0111	0.0592	+/-0.0172	0.100	pCi/g						
Uranium-235	U	0.0111	0.298	+/-0.0849	0.500	pCi/g						
Yttrium-88	U	-0.0252	0.0438	+/-0.0157	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		377	180	+/-65.7	250	pCi/L		KXK2	02/23/10	0712	953111	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	48.5 *	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

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Certificate of Analysis

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7992
Sample ID: 246837001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7991
Sample ID: 246837002
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 29%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.0018	0.021	+/-0.00707	0.050	pCi/g		CXM2	02/27/10	1956	953337	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00236	0.0193	+/-0.00553	0.050	pCi/g		CXM2	02/27/10	1956	953338	3
Plutonium-239/240	U	-0.00236	0.0145	+/-0.00373	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.721	0.0983	+/-0.0738	0.100	pCi/g		CXM2	02/27/10	1644	953339	4
Uranium-235/236		0.0674	0.0627	+/-0.0199	0.100	pCi/g						
Uranium-238		0.997	0.0671	+/-0.0945	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0291	0.523	+/-0.173	0.200	pCi/g		MXR1	02/23/10	1205	952641	5
Bismuth-211	UI	4.11	0.416	+/-0.357		pCi/g						
Bismuth-214		1.09	0.149	+/-0.119	0.200	pCi/g						
Cadmium-109	UI	3.99	1.78	+/-0.896		pCi/g						
Cerium-139	U	0.0158	0.0683	+/-0.0203	0.050	pCi/g						
Cesium-134	U	0.0962	0.107	+/-0.0285	0.100	pCi/g						
Cesium-137	U	0.00563	0.0789	+/-0.023	0.100	pCi/g						
Cobalt-60	U	0.012	0.0917	+/-0.0278	0.100	pCi/g						
Europium-152	U	0.0155	0.215	+/-0.083	0.200	pCi/g						
Lanthanum-140	U	-0.104	0.125	+/-0.0472		pCi/g						
Lead-212		1.78	0.120	+/-0.126	0.100	pCi/g						
Lead-214		1.43	0.145	+/-0.130	0.100	pCi/g						
Mercury-203	U	0.016	0.0967	+/-0.0279	0.100	pCi/g						
Potassium-40		37.8	0.666	+/-2.18	1.00	pCi/g						
Radium-223	U	-0.716	1.40	+/-0.506		pCi/g						
Radium-224	UI	5.07	1.36	+/-0.786		pCi/g						
Radium-226		1.09	0.149	+/-0.119		pCi/g						
Radium-228		1.82	0.269	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	-0.103	0.640	+/-0.201	0.800	pCi/g						
Sodium-22	U	-0.0286	0.096	+/-0.0311	0.080	pCi/g						

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Certificate of Analysis

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7991
Sample ID: 246837002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.127	0.0905	+/-0.0268		pCi/g						
Thallium-208		0.510	0.0704	+/-0.0545	0.080	pCi/g						
Thorium-227	U	-0.409	0.796	+/-0.245		pCi/g						
Thorium-231	U	-0.716	1.40	+/-0.506		pCi/g						
Thorium-234	U	2.75	4.04	+/-1.32	2.00	pCi/g						
Tin-113	U	-0.0183	0.0955	+/-0.029	0.100	pCi/g						
Uranium-235	U	-0.384	0.441	+/-0.146	0.500	pCi/g						
Yttrium-88	U	-0.00429	0.0544	+/-0.0172	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	36.7	180	+/-53.5	250	pCi/L		KXK2	02/23/10	0849	953111	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	75.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7991
Sample ID: 246837002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7990
Sample ID: 246837003
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00395	0.0342	+/-0.0132	0.050	pCi/g		CXM2	02/27/10	1956	953337	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00242	0.0198	+/-0.00726	0.050	pCi/g		CXM2	02/27/10	1945	953338	3
Plutonium-239/240	U	0.00363	0.0149	+/-0.00271	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.779	0.089	+/-0.0758	0.100	pCi/g		CXM2	02/27/10	1644	953339	4
Uranium-235/236		0.0915	0.0567	+/-0.0219	0.100	pCi/g						
Uranium-238		0.864	0.0607	+/-0.0822	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0246	0.105	+/-0.0295	0.200	pCi/g		MXR1	02/23/10	1206	952641	5
Bismuth-211	U1	3.34	0.338	+/-0.289		pCi/g						
Bismuth-214		1.06	0.129	+/-0.0992	0.200	pCi/g						
Cadmium-109	U1	2.35	1.07	+/-0.445		pCi/g						
Cerium-139	U	-0.0149	0.0476	+/-0.0142	0.050	pCi/g						
Cesium-134	UI	0.198	0.123	+/-0.0509	0.100	pCi/g						
Cesium-137	U	0.00323	0.0763	+/-0.0231	0.100	pCi/g						
Cobalt-60	U	-0.00677	0.0783	+/-0.0236	0.100	pCi/g						
Europium-152	U	-0.0785	0.149	+/-0.0495	0.200	pCi/g						
Lanthanum-140	U	-0.0596	0.134	+/-0.0463		pCi/g						
Lead-212		1.58	0.0936	+/-0.0974	0.100	pCi/g						
Lead-214		1.16	0.118	+/-0.105	0.100	pCi/g						
Mercury-203	UI	0.0737	0.0594	+/-0.030	0.100	pCi/g						
Potassium-40		33.0	0.416	+/-1.81	1.00	pCi/g						
Radium-223	U	0.459	1.11	+/-0.343		pCi/g						
Radium-224	UI	4.17	1.07	+/-0.618		pCi/g						
Radium-226		1.06	0.129	+/-0.0992		pCi/g						
Radium-228		1.48	0.233	+/-0.185	0.500	pCi/g						
Ruthenium-106	U	0.310	0.708	+/-0.202	0.800	pCi/g						
Sodium-22	U	-0.00253	0.0987	+/-0.0306	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7990
Sample ID: 246837003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0223	0.0669	+/-0.0215		pCi/g						
Thallium-208		0.537	0.0694	+/-0.0527	0.080	pCi/g						
Thorium-227	U	-0.164	0.606	+/-0.189		pCi/g						
Thorium-231	U	0.459	1.11	+/-0.343		pCi/g						
Thorium-234		1.33	1.01	+/-0.414	2.00	pCi/g						
Tin-113	U	-0.0251	0.0751	+/-0.0227	0.100	pCi/g						
Uranium-235	U	-0.0949	0.335	+/-0.0988	0.500	pCi/g						
Yttrium-88	U	-0.00659	0.057	+/-0.0183	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1290	180	+/-117	250	pCi/L		KXK2	02/23/10	1025	953111	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	55.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7990
Sample ID: 246837003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7987
Sample ID: 246837004
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 34.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0185	0.0231	+/-0.00997	0.050	pCi/g		CXM2	02/27/10	1956	953337	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00543	0.0222	+/-0.00334	0.050	pCi/g		CXM2	02/27/10	1945	953338	3
Plutonium-239/240		0.0367	0.0167	+/-0.00757	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		4.53	0.129	+/-0.365	0.100	pCi/g		CXM2	03/02/10	1358	953339	4
Uranium-235/236		0.340	0.082	+/-0.0526	0.100	pCi/g						
Uranium-238		13.3	0.0878	+/-1.01	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.109	0.249	+/-0.0782	0.200	pCi/g		MXR1	02/23/10	1206	952641	6
Bismuth-211	UI	3.96	0.312	+/-0.319		pCi/g						
Bismuth-214		1.19	0.104	+/-0.0985	0.200	pCi/g						
Cadmium-109	UI	2.18	1.68	+/-0.527		pCi/g						
Cerium-139	U	-0.00758	0.050	+/-0.0147	0.050	pCi/g						
Cesium-134	U	0.0633	0.0797	+/-0.0252	0.100	pCi/g						
Cesium-137		0.527	0.0593	+/-0.0433	0.100	pCi/g						
Cobalt-60	U	-0.00562	0.0534	+/-0.0165	0.100	pCi/g						
Europium-152	U	-0.0421	0.154	+/-0.0538	0.200	pCi/g						
Lanthanum-140	U	-0.000272	0.118	+/-0.0408		pCi/g						
Lead-212		1.70	0.0901	+/-0.125	0.100	pCi/g						
Lead-214		1.38	0.111	+/-0.117	0.100	pCi/g						
Mercury-203	U	0.0506	0.0691	+/-0.0204	0.100	pCi/g						
Potassium-40		26.7	0.448	+/-1.40	1.00	pCi/g						
Radium-223	U	-0.00621	1.05	+/-0.354		pCi/g						
Radium-224	UI	4.48	1.02	+/-0.644		pCi/g						
Radium-226		1.19	0.104	+/-0.0985		pCi/g						
Radium-228		1.46	0.195	+/-0.181	0.500	pCi/g						
Ruthenium-106	U	-0.0302	0.473	+/-0.143	0.800	pCi/g						
Sodium-22	U	0.00857	0.0667	+/-0.0199	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7987
Sample ID: 246837004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.148	0.0737	+/-0.0228		pCi/g						
Thallium-208		0.537	0.0529	+/-0.0466	0.080	pCi/g						
Thorium-227	U	-0.129	0.637	+/-0.197		pCi/g						
Thorium-231	U	-0.00621	1.05	+/-0.354		pCi/g						
Thorium-234		7.60	2.08	+/-1.12	2.00	pCi/g						
Tin-113	U	0.0508	0.0738	+/-0.021	0.100	pCi/g						
Uranium-235	U	0.0436	0.378	+/-0.113	0.500	pCi/g						
Yttrium-88	U	-0.00141	0.0497	+/-0.0153	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		245	181	+/-60.5	250	pCi/L		KXK2	02/23/10	1201	953111	7

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	71.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7987
Sample ID: 246837004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7988
Sample ID: 246837005
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 9.23%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00189	0.0195	+/-0.00152	0.050	pCi/g		CXM2	02/27/10	1636	953337	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00122	0.020	+/-0.00173	0.050	pCi/g		CXM2	02/27/10	1945	953338	3
Plutonium-239/240	U	0.00122	0.015	+/-0.00366	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.872	0.0922	+/-0.0838	0.100	pCi/g		CXM2	02/27/10	1644	953339	4
Uranium-235/236	U	0.0451	0.0588	+/-0.0146	0.100	pCi/g						
Uranium-238		0.719	0.0629	+/-0.0721	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.033	0.0768	+/-0.0239	0.200	pCi/g		MXR1	02/23/10	1207	952641	5
Bismuth-211	UI	3.69	0.292	+/-0.284		pCi/g						
Bismuth-214		1.21	0.108	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	3.90	0.682	+/-0.368		pCi/g						
Cerium-139	U	0.00352	0.0409	+/-0.0118	0.050	pCi/g						
Cesium-134	UI	0.122	0.102	+/-0.0274	0.100	pCi/g						
Cesium-137	U	-0.0123	0.0749	+/-0.0215	0.100	pCi/g						
Cobalt-60	U	0.00286	0.0658	+/-0.0198	0.100	pCi/g						
Europium-152	U	0.00986	0.143	+/-0.0464	0.200	pCi/g						
Lanthanum-140	U	-0.0529	0.124	+/-0.0411		pCi/g						
Lead-212		1.63	0.0791	+/-0.106	0.100	pCi/g						
Lead-214		1.28	0.102	+/-0.104	0.100	pCi/g						
Mercury-203	U	0.0333	0.0624	+/-0.0202	0.100	pCi/g						
Potassium-40		35.8	0.443	+/-1.80	1.00	pCi/g						
Radium-223	U	-0.687	0.943	+/-0.297		pCi/g						
Radium-224	UI	4.06	0.901	+/-0.536		pCi/g						
Radium-226		1.21	0.108	+/-0.107		pCi/g						
Radium-228		1.41	0.217	+/-0.164	0.500	pCi/g						
Ruthenium-106	U	0.0506	0.527	+/-0.152	0.800	pCi/g						
Sodium-22	U	-0.0168	0.0749	+/-0.0235	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 4, 2010

Client Sample ID: RE15-10-7988
Sample ID: 246837005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0402	0.0581	+/-0.0181		pCi/g						
Thallium-208		0.558	0.0571	+/-0.0536	0.080	pCi/g						
Thorium-227	U	0.0993	0.550	+/-0.166		pCi/g						
Thorium-231	U	-0.687	0.943	+/-0.297		pCi/g						
Thorium-234		1.75	0.737	+/-0.398	2.00	pCi/g						
Tin-113	U	-0.00464	0.0698	+/-0.0206	0.100	pCi/g						
Uranium-235	U	0.0942	0.294	+/-0.0833	0.500	pCi/g						
Yttrium-88	U	-0.00262	0.0516	+/-0.016	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		340	181	+/-64.2	250	pCi/L		KXK2	02/23/10	1337	953111	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	75.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	76.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Certificate of Analysis

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7988
Sample ID: 246837005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7989
Sample ID: 246837006
Matrix: R
Collect Date: 08-FEB-10
Receive Date: 11-FEB-10
Collector: Client
Moisture: 26.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0139	0.0314	+/-0.00532	0.050	pCi/g		CXM2	02/27/10	1636	953337	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00248	0.0203	+/-0.00249	0.050	pCi/g		CXM2	02/27/10	1945	953338	3
Plutonium-239/240	U	0.0137	0.0153	+/-0.00454	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.95	0.0936	+/-0.162	0.100	pCi/g		CXM2	02/27/10	1644	953339	4
Uranium-235/236		0.138	0.0597	+/-0.0277	0.100	pCi/g						
Uranium-238		3.68	0.0639	+/-0.285	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0719	0.315	+/-0.101	0.200	pCi/g		MXR1	02/23/10	1213	952641	5
Bismuth-211	UI	3.54	0.370	+/-0.343		pCi/g						
Bismuth-214		1.17	0.129	+/-0.108	0.200	pCi/g						
Cadmium-109	UI	2.53	1.54	+/-0.629		pCi/g						
Cerium-139	U	-0.0134	0.0552	+/-0.017	0.050	pCi/g						
Cesium-134	U	0.0841	0.102	+/-0.0332	0.100	pCi/g						
Cesium-137		0.225	0.0825	+/-0.0379	0.100	pCi/g						
Cobalt-60	U	-0.0137	0.0762	+/-0.0241	0.100	pCi/g						
Europium-152	U	0.0308	0.189	+/-0.0597	0.200	pCi/g						
Lanthanum-140	U	-0.0849	0.138	+/-0.0483		pCi/g						
Lead-212		1.49	0.094	+/-0.111	0.100	pCi/g						
Lead-214		1.23	0.129	+/-0.124	0.100	pCi/g						
Mercury-203	U	-0.00227	0.0739	+/-0.0217	0.100	pCi/g						
Potassium-40		27.5	0.676	+/-1.62	1.00	pCi/g						
Radium-223	U	-0.60	1.26	+/-0.394		pCi/g						
Radium-224	UI	5.23	1.07	+/-0.825		pCi/g						
Radium-226		1.17	0.129	+/-0.108		pCi/g						
Radium-228		1.36	0.229	+/-0.179	0.500	pCi/g						
Ruthenium-106	U	0.0645	0.624	+/-0.183	0.800	pCi/g						
Sodium-22	U	-0.0353	0.0841	+/-0.0273	0.080	pCi/g						

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7989
Sample ID: 246837006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	-0.257	0.0649	+/-0.0312		pCi/g						
Thallium-208		0.380	0.0727	+/-0.0459	0.080	pCi/g						
Thorium-227	U	0.0352	0.688	+/-0.199		pCi/g						
Thorium-231	U	-0.60	1.26	+/-0.394		pCi/g						
Thorium-234		6.94	2.48	+/-1.57	2.00	pCi/g						
Tin-113	U	0.0123	0.0862	+/-0.0255	0.100	pCi/g						
Uranium-235	U	0.317	0.425	+/-0.129	0.500	pCi/g						
Yttrium-88	U	0.00262	0.0673	+/-0.0206	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		438	181	+/-68.8	250	pCi/L		KXK2	02/23/10	1514	953111	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	47.5 *	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	94.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	77.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Certificate of Analysis

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

Report Date: March 4, 2010

Client Sample ID: RE15-10-7989
Sample ID: 246837006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: March 5, 2010

Client : **Los Alamos National Laboratory**
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: **Ms. Joylene Valdez**

Workorder: **246837**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 953337										
QC1202043670 246837001 DUP										
Americium-241	U	-0.00181	U	0.00837	pCi/g	0.458		(0-1)	CXM2	02/27/1016:36
	TPU:	+/-0.00781		+/-0.0033						
	Yield:	82.0		72.1						
QC1202043671 LCS										
Americium-241	33.2			28.0	pCi/g		84.3	(80%-120%)		02/27/1016:36
	TPU:			+/-1.94						
	Yield:			92.4						
QC1202043669 MB										
Americium-241			U	0.00109	pCi/g					02/27/1016:36
	TPU:			+/-0.00169						
	Yield:			71.3						
Batch 953338										
QC1202043673 246837001 DUP										
Plutonium-238	U	-0.00118	U	0.00	pCi/g	0.0829		(0-1)	CXM2	02/27/1016:36
	TPU:	+/-0.00611		+/-0.000986						
	Yield:	93.1		95.8						
Plutonium-239/240	U	-0.00118	U	0.00	pCi/g	0.143		(0-1)		
	TPU:	+/-0.00311		+/-0.000986						
	Yield:	93.1		95.8						
QC1202043674 LCS										
Plutonium-238				6.71	pCi/g			(80%-120%)		02/27/1016:36
	TPU:			+/-0.475						
	Yield:			99.9						
Plutonium-239/240	41.8			35.1	pCi/g		84	(80%-120%)		
	TPU:			+/-2.11						
	Yield:			99.9						
QC1202043672 MB										
Plutonium-238			U	-0.00123	pCi/g					02/27/1016:36
	TPU:			+/-0.00173						
	Yield:			96.3						
Plutonium-239/240			U	0.00368	pCi/g					
	TPU:			+/-0.00213						
	Yield:			96.3						
Batch 953339										
QC1202043679 246837001 DUP										
Uranium-233/234		0.776		0.708	pCi/g	0.209		(0-1)	CXM2	02/27/1020:05
	TPU:	+/-0.0883		+/-0.0744						
	Yield:	48.5		86.4						
Uranium-235/236	U	0.0141	U	0.0466	pCi/g	0.628		(0-1)		
	TPU:	+/-0.010		+/-0.0159						
	Yield:	48.5		86.4						
Uranium-238		0.786		0.947	pCi/g	0.441		(0-1)		
	TPU:	+/-0.0895		+/-0.0929						

QC Summary

Workorder: 246837

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 953339										
	Yield:	48.5		86.4						
QC1202043680 LCS										
Uranium-233/234				6.38	pCi/g					02/27/1020:05
	TPU:			+/-0.609						
	Yield:			85.2						
Uranium-235/236				0.390	pCi/g					
	TPU:			+/-0.102						
	Yield:			85.2						
Uranium-238	5.75			5.91	pCi/g		103	(80%-120%)		
	TPU:			+/-0.571						
	Yield:			85.2						
QC1202043678 MB										
Uranium-233/234			U	0.00565	pCi/g					02/27/1020:05
	TPU:			+/-0.00332						
	Yield:			95.2						
Uranium-235/236			U	0.00238	pCi/g					
	TPU:			+/-0.00239						
	Yield:			95.2						
Uranium-238			U	0.00963	pCi/g					
	TPU:			+/-0.00514						
	Yield:			95.2						
Rad Gamma Spec										
Batch 952641										
QC1202041818 246847001 DUP										
Americium-241	U	0.021	U	-0.375	pCi/g	1.05		(0-1)	MXR1	02/23/1016:54
	TPU:	+/-0.0247		+/-0.164						
Bismuth-211	UI	3.17	UI	3.43	pCi/g	0.212		(0-1)		
	TPU:	+/-0.286		+/-0.330						
Bismuth-214		1.02		1.10	pCi/g	0.193		(0-1)		
	TPU:	+/-0.102		+/-0.111						
Cadmium-109	UI	3.34	UI	2.26	pCi/g	0.516		(0-1)		
	TPU:	+/-0.352		+/-0.702						
Cerium-139	U	0.00946	U	0.0156	pCi/g	0.0927		(0-1)		
	TPU:	+/-0.0128		+/-0.0202						
Cesium-134	UI	0.141	U	0.0634	pCi/g	0.519		(0-1)		
	TPU:	+/-0.0437		+/-0.0312						
Cesium-137	U	-0.00197	U	-0.0263	pCi/g	0.250		(0-1)		
	TPU:	+/-0.0262		+/-0.0224						
Cobalt-60	U	0.00616	U	-0.0252	pCi/g	0.309		(0-1)		
	TPU:	+/-0.0243		+/-0.0265						
Europium-152	U	-0.0186	U	-0.168	pCi/g	0.528		(0-1)		
	TPU:	+/-0.0513		+/-0.0904						
Lanthanum-140	U	-0.0483	U	-0.12	pCi/g	0.360		(0-1)		
	TPU:	+/-0.0436		+/-0.0563						
Lead-212		1.67		1.61	pCi/g	0.119		(0-1)		
	TPU:	+/-0.111		+/-0.121						
Lead-214		1.10		1.19	pCi/g	0.207		(0-1)		
	TPU:	+/-0.104		+/-0.119						
Mercury-203	U	0.011	U	0.011	pCi/g	0.000388		(0-1)		
	TPU:	+/-0.0231		+/-0.0285						

QC Summary

Workorder: 246837

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 952641										
Potassium-40		37.0		37.5	pCi/g	0.0569		(0-1)		
	TPU:	+/-1.91		+/-2.21						
Radium-223	U	0.0191	U	-1.04	pCi/g	0.604		(0-1)		
	TPU:	+/-0.364		+/-0.511						
Radium-224	UI	4.71	UI	4.78	pCi/g	0.0178		(0-1)		
	TPU:	+/-0.730		+/-1.13						
Radium-226		1.02		1.10	pCi/g	0.193		(0-1)		
	TPU:	+/-0.102		+/-0.111						
Radium-228		1.70		1.38	pCi/g	0.449		(0-1)		
	TPU:	+/-0.177		+/-0.183						
Ruthenium-106	U	0.00806	U	0.161	pCi/g	0.187		(0-1)		
	TPU:	+/-0.186		+/-0.222						
Sodium-22	U	-0.066	U	-0.0405	pCi/g	0.217		(0-1)		
	TPU:	+/-0.027		+/-0.0317						
Strontium-85	U	0.0347	UI	0.146	pCi/g	1.08		(0-1)		
	TPU:	+/-0.0229		+/-0.0288						
Thallium-208		0.540		0.518	pCi/g	0.101		(0-1)		
	TPU:	+/-0.0526		+/-0.0529						
Thorium-227	U	-0.139	U	-0.126	pCi/g	0.0135		(0-1)		
	TPU:	+/-0.190		+/-0.265						
Thorium-231	U	0.0191	U	-1.04	pCi/g	0.604		(0-1)		
	TPU:	+/-0.364		+/-0.511						
Thorium-234	U	0.844	U	0.943	pCi/g	0.0321		(0-1)		
	TPU:	+/-0.284		+/-1.27						
Tin-113	U	-0.00125	U	0.0309	pCi/g	0.300		(0-1)		
	TPU:	+/-0.0236		+/-0.0301						
Uranium-235	U	-0.0896	U	0.288	pCi/g	0.763		(0-1)		
	TPU:	+/-0.0917		+/-0.156						
Yttrium-88	U	-0.0123	U	0.0506	pCi/g	0.804		(0-1)		
	TPU:	+/-0.0171		+/-0.0219						
QC1202041819 LCS										
Americium-241	15.9			14.1	pCi/g		88.3	(75%-125%)		02/23/1015:23
	TPU:			+/-0.743						
Bismuth-211				2.17	pCi/g					
	TPU:			+/-0.498						
Bismuth-214				0.415	pCi/g					
	TPU:			+/-0.122						
Cadmium-109				29.9	pCi/g					
	TPU:			+/-2.07						
Cerium-139			U	0.0247	pCi/g					
	TPU:			+/-0.0244						
Cesium-134			U	0.112	pCi/g					
	TPU:			+/-0.0478						
Cesium-137	5.56			5.33	pCi/g		96	(75%-125%)		
	TPU:			+/-0.195						
Cobalt-60	6.38			5.82	pCi/g		91.2	(75%-125%)		
	TPU:			+/-0.277						
Europium-152			U	-0.0665	pCi/g					
	TPU:			+/-0.118						
Lanthanum-140			U	-0.0521	pCi/g					
	TPU:			+/-0.0419						

QC Summary

Workorder: 246837

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 952641										
Lead-212				1.14	pCi/g					
	TPU:			+/-0.0839						
Lead-214				0.755	pCi/g					
	TPU:			+/-0.174						
Mercury-203			U	-0.0599	pCi/g					
	TPU:			+/-0.0336						
Potassium-40				0.892	pCi/g					
	TPU:			+/-0.270						
Radium-223			U	0.565	pCi/g					
	TPU:			+/-0.637						
Radium-224				3.73	pCi/g					
	TPU:			+/-1.07						
Radium-226				0.415	pCi/g					
	TPU:			+/-0.122						
Radium-228				1.23	pCi/g					
	TPU:			+/-0.241						
Ruthenium-106			U	0.144	pCi/g					
	TPU:			+/-0.330						
Sodium-22			U	-0.0437	pCi/g					
	TPU:			+/-0.0277						
Strontium-85			U	-0.162	pCi/g					
	TPU:			+/-0.0412						
Thallium-208				0.354	pCi/g					
	TPU:			+/-0.0768						
Thorium-227			U	-0.609	pCi/g					
	TPU:			+/-0.369						
Thorium-231			U	0.565	pCi/g					
	TPU:			+/-0.637						
Thorium-234			U	-1.39	pCi/g					
	TPU:			+/-1.35						
Tin-113			U	-0.0525	pCi/g					
	TPU:			+/-0.0472						
Uranium-235			U	0.114	pCi/g					
	TPU:			+/-0.167						
Yttrium-88			U	-0.0112	pCi/g					
	TPU:			+/-0.0206						
QC1202041817 MB										
Americium-241			U	-0.0243	pCi/g					02/23/1015:22
	TPU:			+/-0.0234						
Bismuth-211			U	0.0601	pCi/g					
	TPU:			+/-0.0507						
Bismuth-214			U	-0.00105	pCi/g					
	TPU:			+/-0.020						
Cadmium-109			U	-0.353	pCi/g					
	TPU:			+/-0.146						
Cerium-139			U	-0.001	pCi/g					
	TPU:			+/-0.00599						
Cesium-134			U	0.00754	pCi/g					
	TPU:			+/-0.0107						
Cesium-137			U	0.00519	pCi/g					
	TPU:			+/-0.00908						

QC Summary

Workorder: 246837

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 952641										
Cobalt-60			U	0.00133	pCi/g					
	TPU:			+/-0.00859						
Europium-152			U	-0.0224	pCi/g					
	TPU:			+/-0.0224						
Lanthanum-140			U	0.0219	pCi/g					
	TPU:			+/-0.0144						
Lead-212			U	-0.000143	pCi/g					
	TPU:			+/-0.0144						
Lead-214			U	-0.00607	pCi/g					
	TPU:			+/-0.0175						
Mercury-203			U	0.00599	pCi/g					
	TPU:			+/-0.00809						
Potassium-40			U	0.0933	pCi/g					
	TPU:			+/-0.120						
Radium-223			U	0.0995	pCi/g					
	TPU:			+/-0.147						
Radium-224			U	-0.000977	pCi/g					
	TPU:			+/-0.149						
Radium-226			U	-0.00105	pCi/g					
	TPU:			+/-0.020						
Radium-228			U	0.0604	pCi/g					
	TPU:			+/-0.0342						
Ruthenium-106			U	0.0463	pCi/g					
	TPU:			+/-0.074						
Sodium-22			U	0.0089	pCi/g					
	TPU:			+/-0.00948						
Strontium-85			U	-0.0508	pCi/g					
	TPU:			+/-0.0141						
Thallium-208			U	0.00189	pCi/g					
	TPU:			+/-0.0108						
Thorium-227			U	0.0645	pCi/g					
	TPU:			+/-0.0844						
Thorium-231			U	0.0995	pCi/g					
	TPU:			+/-0.147						
Thorium-234			U	-0.286	pCi/g					
	TPU:			+/-0.231						
Tin-113			U	0.00434	pCi/g					
	TPU:			+/-0.00953						
Uranium-235			U	0.104	pCi/g					
	TPU:			+/-0.0488						
Yttrium-88			U	0.0221	pCi/g					
	TPU:			+/-0.00952						
Rad Liquid Scintillation										
Batch 953111										
QC1202042934 246557001 DUP										
Tritium	U	102	U	99.3	pCi/L	0.0113		(0-1)	KXK2	02/23/1020:02
	TPU:	+/-55.5		+/-55.2						
QC1202042935 LCS										
Tritium	5550			5650	pCi/L		102	(80%-120%)		02/23/1021:39
	TPU:			+/-495						

QC Summary

Workorder: 246837

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 953111										
QC1202042933 MB										
Tritium			U	2.17	pCi/L					02/23/1018:26
	TPU:			+/-52.9						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

QC Summary

Workorder: 246837

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 953337 Product: AM Date: 3/1/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/.MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/1/10

Secondary Review Performed By: [illegible] 3/1/10

2/22 3/4

LANL

Am/Cm Que Sheet

15-FEB-10

Batch #: 953337 Analyst: CXM2 First Client Due Date: 04-MAR-10 Internal Due Date22-FEB-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-55 Expiration Date: 5/11/10 Vol: 0.1mL

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0244-B / — Expiration Date: 4/30/20 / — Vol(s): 0.105g / — # SRM

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 2/22/10 Initials: CMM Pipet ID: 2971058 Balance ID: 50410272 Witness: [illegible] 2/28/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
246837001-1	RE15-10-7992	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	1	1	1.264	~~73~~ 19
246837002-1	RE15-10-7991	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	2	2	1.266	~~74~~ 20
246837003-1	RE15-10-7990	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	3	3	1.264	~~75~~ 21
246837004-1	RE15-10-7987	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	4	4	1.260	~~76~~ 22
246837005-1	RE15-10-7988	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	5	5	1.277	214
246837006-1	RE15-10-7989	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	6	6	1.254	219
246841001-1	RE16-10-1214	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	7	7	1.253	220
246841002-1	RE16-10-1215	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	8	8	1.265	221
246841003-1	RE16-10-1236	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	9	9	1.252	222
246843002-1	RE16-10-2771	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	10	10	1.255	223
246843003-1	RE16-10-2774	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	11	11	1.263	224
246843004-1	RE16-10-2770	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	12	12	1.257	225
246846001-1	RE16-10-2915	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	13	13	1.272	226
246846002-1	RE16-10-2914	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	14	14	1.275	227
246847001-1	RE16-10-2828	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	15	15	1.256	228
246847002-1	RE16-10-2829	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	16	16	1.251	229
1202043669-1	MB for batch 953337	MB		.05 pCi/g	SOIL	QC ACCOUNT		17	17	1	230
1202043670-1	RE15-10-7992(246837001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	08-FEB-10	18	18	1.265	231
1202043671-1	LCS for batch 953337	LCS		.05 pCi/g	SOIL	QC ACCOUNT		19	19	0.105	232

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 3/1/10

Blank Correction Report

Batch ID 953337

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202043670	DUP	Americium-241	1.27 g	0.00837	0.0033	0.0203	.000858268	pCi/g	NO
1202043671	LCS	Americium-241	0.105 g	28.0	1.94	0.199	.010380952	pCi/g	NO
1202043669	MB	Americium-241	1.00 g	0.00109	0.00169	0.0269	.00109	pCi/g	YES
246837001	RE15-10-7992	Americium-241	1.26 g	-0.00181	0.00781	0.024	.000865079	pCi/g	YES
246837002	RE15-10-7991	Americium-241	1.27 g	-0.0018	0.00707	0.021	.000858268	pCi/g	YES
246837003	RE15-10-7990	Americium-241	1.26 g	-0.00395	0.0132	0.0342	.000865079	pCi/g	YES
246837004	RE15-10-7987	Americium-241	1.26 g	0.0185	0.00997	0.0231	.000865079	pCi/g	NO
246837005	RE15-10-7988	Americium-241	1.28 g	0.00189	0.00152	0.0195	.000851563	pCi/g	YES
246837006	RE15-10-7989	Americium-241	1.25 g	0.0139	0.00532	0.0314	.000872	pCi/g	NO
246841001	RE16-10-1214	Americium-241	1.25 g	0.00198	0.00159	0.0202	.000872	pCi/g	YES
246841002	RE16-10-1215	Americium-241	1.27 g	-0.000454	0.00321	0.0215	.000858268	pCi/g	YES
246841003	RE16-10-1236	Americium-241	1.25 g	-0.00182	0.00179	0.0201	.000872	pCi/g	YES
246843002	RE16-10-2771	Americium-241	1.26 g	0.00492	0.00259	0.0215	.000865079	pCi/g	NO
246843003	RE16-10-2774	Americium-241	1.26 g	0.00648	0.0033	0.0264	.000865079	pCi/g	NO
246843004	RE16-10-2770	Americium-241	1.26 g	-0.000376	0.00204	0.0229	.000865079	pCi/g	YES
246846001	RE16-10-2915	Americium-241	1.27 g	0.000736	0.00127	0.0202	.000858268	pCi/g	YES
246846002	RE16-10-2914	Americium-241	1.28 g	0.0153	0.00474	0.0194	.000851563	pCi/g	NO
246847001	RE16-10-2828	Americium-241	1.26 g	0.00229	0.00178	0.0218	.000865079	pCi/g	YES
246847002	RE16-10-2829	Americium-241	1.25 g	0.00223	0.00174	0.0215	.000872	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953337	CHAMBER : 019	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246837001_AM	DETECTOR S/N : 78786	BKG FILE : B019.CNF;1104
SAMPLE QTY : 1.264 G	AVERAGE %EFFICIENCY : 28.8368	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 19:56:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W019.CNF;307
% YIELD : 81.984		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.3911E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

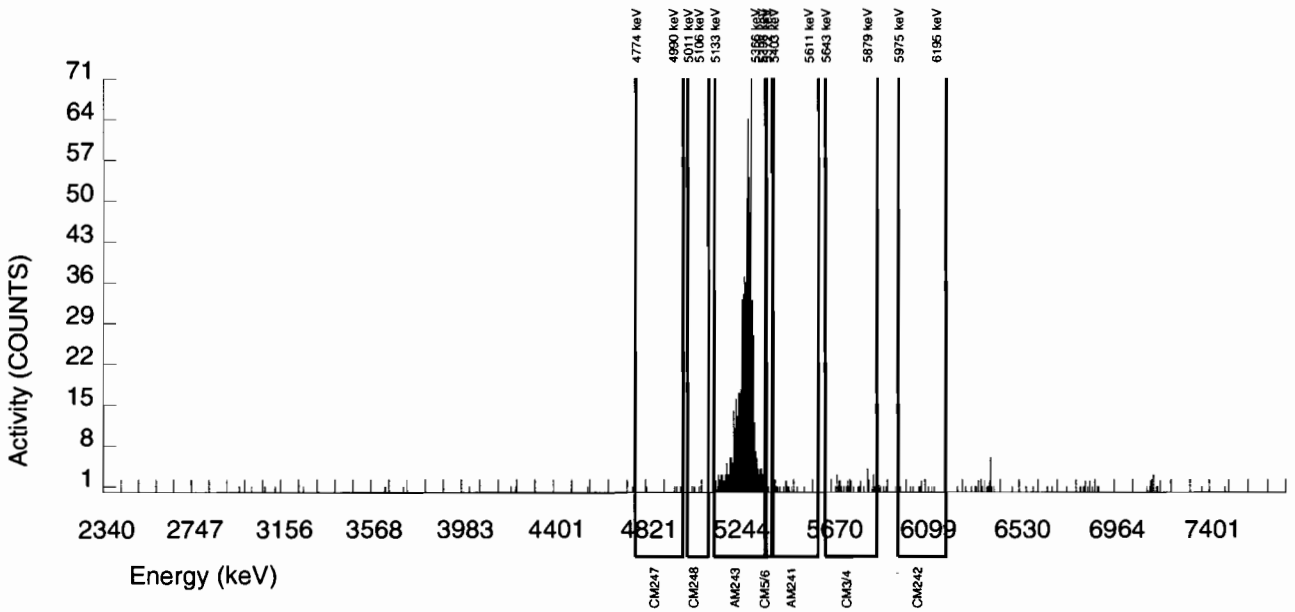
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5469.616	11.709	14.000	-1.197	14.000	2.8409	99.94000	-1.81E-03	7.81E-03	9.97E-03	2.40E-02	7.81E-03
AM243	5270.000	5280.832	37.221	689.000	688.000	1.000	1.0000	99.78000	1.04E+00	7.60E-02	3.51E-03	1.11E-02	3.97E-02
CM-242	6102.000	6100.440	7.437	12.000	8.000	4.000	4.3413	100.0000	1.31E-02	6.62E-03	1.52E-02	3.45E-02	6.57E-03
CM-3/4	5795.020	5787.142	161.812	36.000	-2.000	38.000	5.1799	100.0000	-3.02E-03	1.30E-02	1.82E-02	4.04E-02	1.30E-02
CM-5/6	5386.000	5375.815	0.000	10.000	9.000	1.000	14.2480	86.09000	1.58E-02	5.89E-03	5.80E-02	1.21E-01	5.81E-03
CM-247	4946.000	4946.552	0.000	5.000	4.000	1.000	13.7917	79.30000	7.60E-03	4.68E-03	6.10E-02	1.27E-01	4.66E-03
CM-248	5078.600	5046.062	60.759	8.000	8.000	0.000	19.5080	91.00000	1.33E-02	4.76E-03	7.52E-02	1.55E-01	4.69E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953337	CHAMBER : 020	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246837002_AM	DETECTOR S/N : 78787	BKG FILE : B020.CNF;1099
SAMPLE QTY : 1.266 G	AVERAGE %EFFICIENCY : 33.8827	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 19:56:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W020.CNF;320
% YIELD : 79.511		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.3190E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

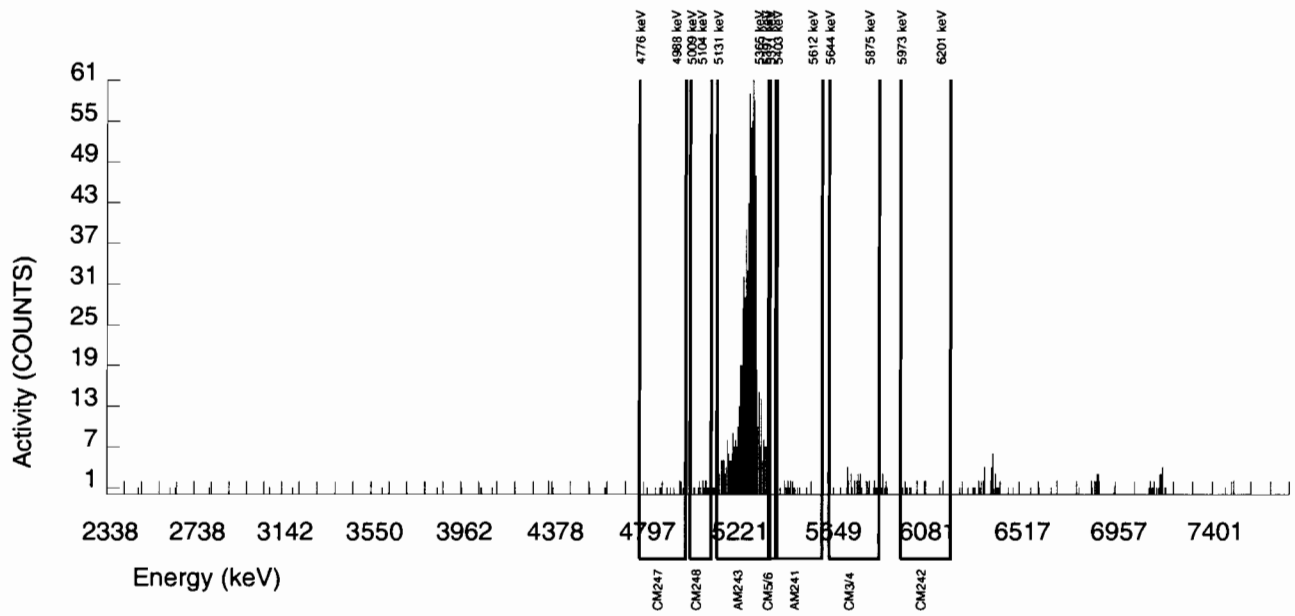
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5473.698	29.740	15.000	-1.364	15.000	2.8409	99.94000	-1.80E-03	7.07E-03	8.73E-03	2.10E-02	7.07E-03
AM243	5270.000	5277.501	53.851	786.000	784.000	2.000	1.4142	99.78000	1.04E+00	7.33E-02	4.35E-03	1.23E-02	3.72E-02
CM-242	6102.000	6070.736	114.401	12.000	6.000	6.000	4.3413	100.0000	8.63E-03	6.13E-03	1.33E-02	3.03E-02	6.11E-03
CM-3/4	5795.020	5794.568	0.000	41.000	4.000	37.000	5.1799	100.0000	5.29E-03	1.17E-02	1.59E-02	3.54E-02	1.17E-02
CM-5/6	5386.000	5372.204	0.000	7.000	7.000	0.000	14.2480	86.09000	1.07E-02	4.11E-03	5.09E-02	1.06E-01	4.06E-03
CM-247	4946.000	4912.064	4.974	10.000	10.000	0.000	13.7917	79.30000	1.67E-02	5.36E-03	5.34E-02	1.11E-01	5.27E-03
CM-248	5078.600	5068.007	22.227	14.000	14.000	0.000	19.5080	91.00000	2.03E-02	5.57E-03	6.59E-02	1.36E-01	5.43E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953337	CHAMBER : 021	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246837003_AM	DETECTOR S/N : 67047	BKG FILE : B021.CNF;1107
SAMPLE QTY : 1.264 G	AVERAGE %EFFICIENCY : 29.7281	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 19:56:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W021.CNF;328
% YIELD : 55.946		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 1.6317E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

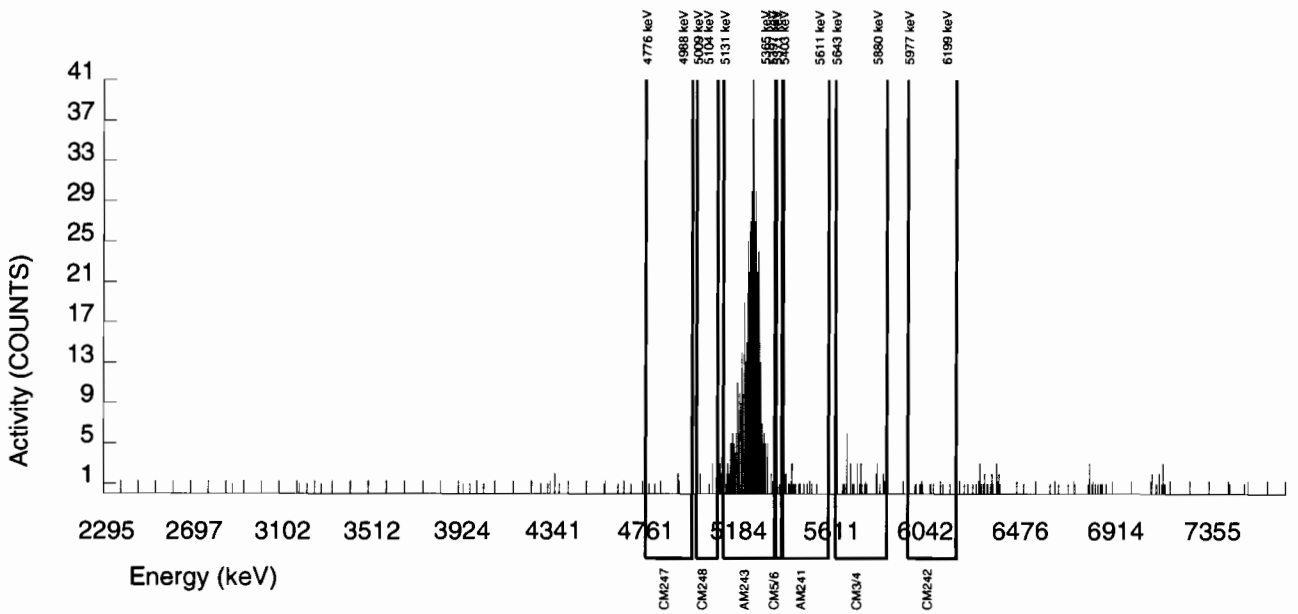
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5463.294	34.956	19.000	-1.842	20.000	2.8409	99.94000	-3.95E-03	1.32E-02	1.42E-02	3.41E-02	1.32E-02
AM243	5270.000	5256.693	49.207	492.000	484.000	8.000	2.8284	99.78000	1.04E+00	8.51E-02	1.41E-02	3.41E-02	4.80E-02
CM-242	6102.000	6076.483	154.455	10.000	-6.000	16.000	4.3413	100.0000	-1.40E-02	1.19E-02	2.16E-02	4.91E-02	1.19E-02
CM-3/4	5795.020	5762.732	5.492	36.000	-10.000	46.000	5.1799	100.0000	-2.15E-02	1.94E-02	2.58E-02	5.74E-02	1.94E-02
CM-5/6	5386.000	5391.883	0.000	3.000	0.000	3.000	14.2480	86.09000	0.00E+00	6.10E-03	8.25E-02	1.72E-01	6.10E-03
CM-247	4946.000	4870.122	5.003	4.000	3.000	1.000	13.7917	79.30000	8.11E-03	6.07E-03	8.67E-02	1.81E-01	6.04E-03
CM-248	5078.600	5059.728	58.780	7.000	5.000	2.000	19.5080	91.00000	1.18E-02	7.11E-03	1.07E-01	2.20E-01	7.06E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953337	CHAMBER : 022	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246837004_AM	DETECTOR S/N : 72530	BKG FILE : B022.CNF;1111
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 30.9313	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 19:56:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W022.CNF;318
% YIELD : 79.876		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.3296E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

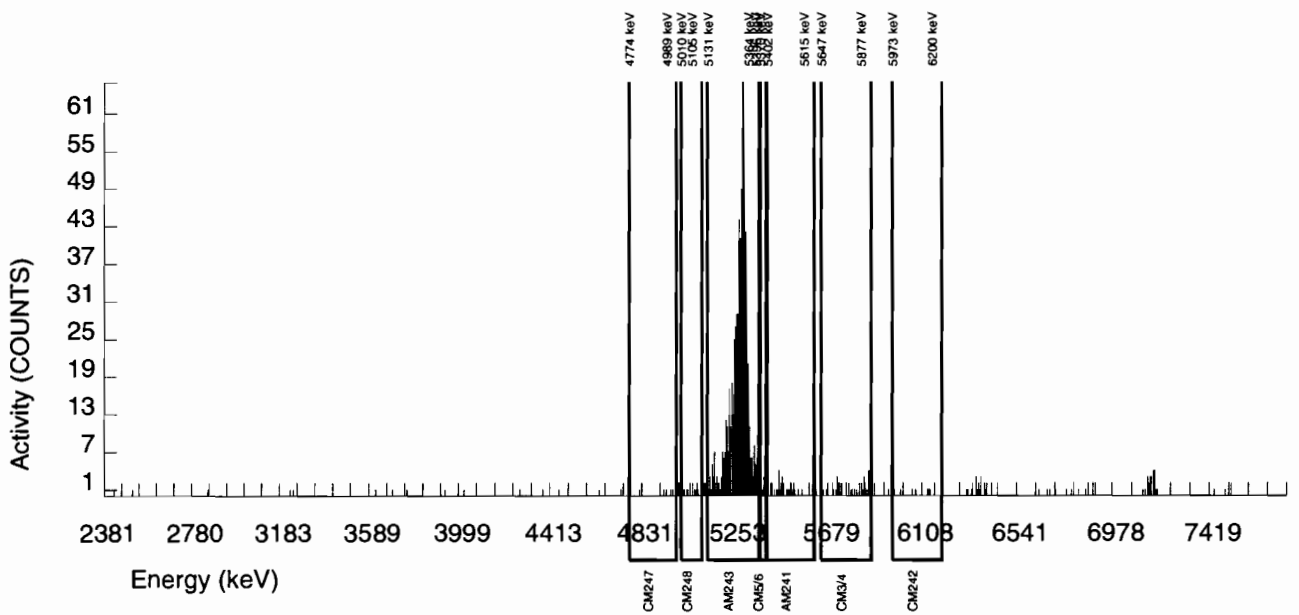
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5491.861	23.151	31.000	12.749	17.000	2.8409	99.94000	1.85E-02	9.97E-03	9.57E-03	2.31E-02	9.90E-03
AM243	5270.000	5280.571	38.952	721.000	719.000	2.000	1.4142	99.78000	1.04E+00	7.54E-02	4.77E-03	1.35E-02	3.90E-02
CM-242	6102.000	6102.682	4.961	11.000	-3.000	14.000	4.3413	100.0000	-4.73E-03	7.88E-03	1.46E-02	3.31E-02	7.88E-03
CM-3/4	5795.020	5790.789	0.000	44.000	3.000	41.000	5.1799	100.0000	4.35E-03	1.34E-02	1.74E-02	3.88E-02	1.34E-02
CM-5/6	5386.000	5382.161	0.000	15.000	13.000	2.000	14.2480	86.09000	2.19E-02	7.06E-03	5.57E-02	1.16E-01	6.93E-03
CM-247	4946.000	4940.838	0.000	6.000	6.000	0.000	13.7917	79.30000	1.09E-02	4.52E-03	5.85E-02	1.22E-01	4.47E-03
CM-248	5078.600	5063.303	14.883	12.000	11.000	1.000	19.5080	91.00000	1.75E-02	5.83E-03	7.22E-02	1.49E-01	5.73E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953337	CHAMBER : 214	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246837005_AM	DETECTOR S/N : 79193	BKG FILE : B214.CNF;83
SAMPLE QTY : 1.277 G	AVERAGE %EFFICIENCY : 38.4008	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 16:36:20	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W214.CNF;28
% YIELD : 75.077		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.1897E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

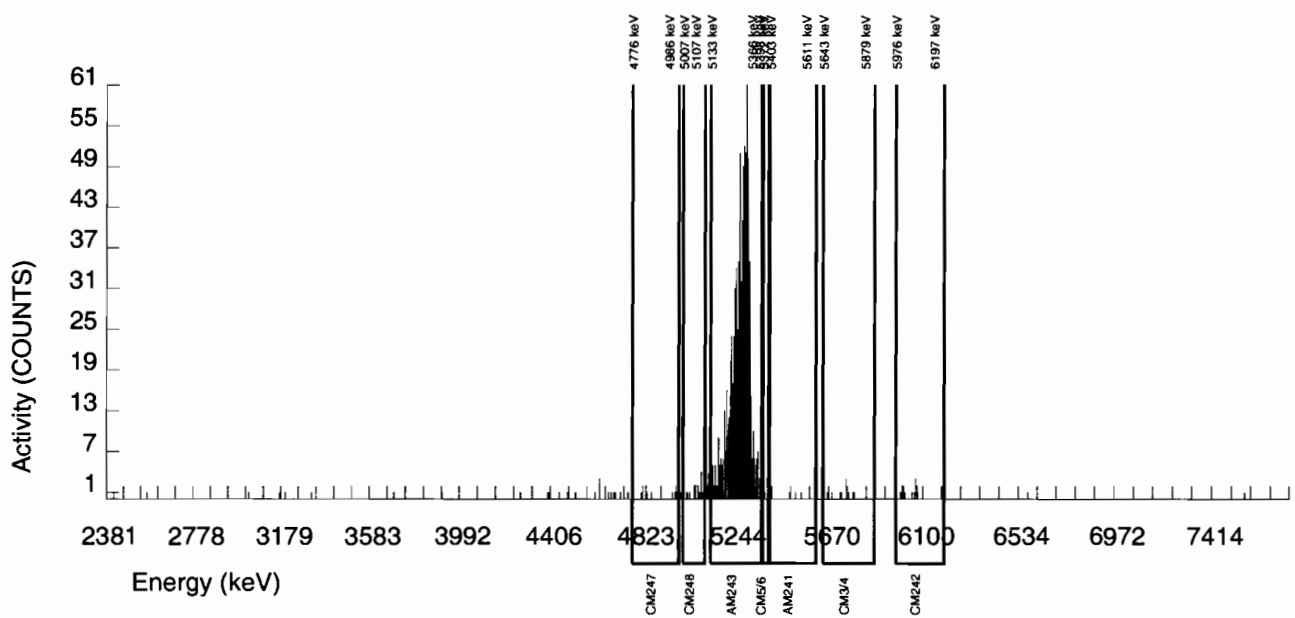
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5525.851	54.231	3.000	1.540	0.000	2.8409	99.94000	1.89E-03	1.52E-03	8.09E-03	1.95E-02	1.52E-03
AM243	5270.000	5272.696	62.283	839.000	839.000	0.000	0.0000	99.78000	1.03E+00	7.12E-02	0.00E+00	3.32E-03	3.55E-02
CM-242	6102.000	6047.332	63.886	14.000	13.000	1.000	4.3413	100.0000	1.73E-02	5.26E-03	1.24E-02	2.80E-02	5.16E-03
CM-3/4	5795.020	5743.804	4.930	10.000	10.000	0.000	5.1799	100.0000	1.23E-02	3.95E-03	1.47E-02	3.28E-02	3.88E-03
CM-5/6	5386.000	5376.902	0.000	6.000	6.000	0.000	14.2480	86.09000	8.53E-03	3.52E-03	4.71E-02	9.81E-02	3.48E-03
CM-247	4946.000	4911.610	135.424	11.000	9.000	2.000	13.7917	79.30000	1.39E-02	5.63E-03	4.95E-02	1.03E-01	5.56E-03
CM-248	5078.600	5068.518	6.574	18.000	16.000	2.000	19.5080	91.00000	2.15E-02	6.15E-03	6.10E-02	1.26E-01	6.01E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953337	CHAMBER : 219	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246837006_AM	DETECTOR S/N : 79412	BKG FILE : B219.CNF;83
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 38.4458	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 16:36:22	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W219.CNF;28
% YIELD : 47.461		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 1.3842E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

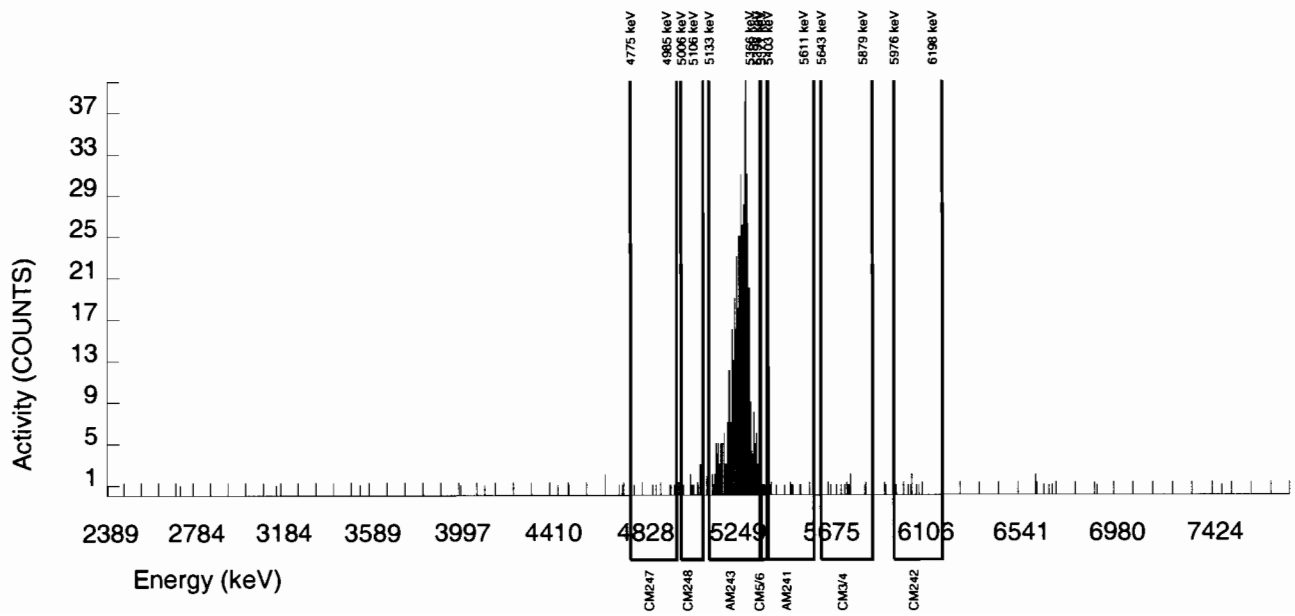
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.419	132.731	8.000	7.076	0.000	2.8409	99.94000	1.39E-02	5.32E-03	1.30E-02	3.14E-02	5.24E-03
AM243	5270.000	5278.559	55.791	532.000	531.000	1.000	1.0000	99.78000	1.05E+00	8.24E-02	4.59E-03	1.45E-02	4.56E-02
CM-242	6102.000	6047.773	7.220	8.000	8.000	0.000	4.3413	100.0000	1.72E-02	6.17E-03	1.99E-02	4.51E-02	6.06E-03
CM-3/4	5795.020	5752.017	7.220	10.000	10.000	0.000	5.1799	100.0000	1.97E-02	6.37E-03	2.37E-02	5.28E-02	6.24E-03
CM-5/6	5386.000	5386.218	0.000	10.000	10.000	0.000	14.2480	86.09000	2.29E-02	7.39E-03	7.58E-02	1.58E-01	7.23E-03
CM-247	4946.000	4912.405	176.974	6.000	4.000	2.000	13.7917	79.30000	9.93E-03	7.05E-03	7.97E-02	1.66E-01	7.02E-03
CM-248	5078.600	5079.298	48.545	14.000	14.000	0.000	19.5080	91.00000	3.03E-02	8.33E-03	9.82E-02	2.02E-01	8.09E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953337	CHAMBER : 230	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202043669_AM	DETECTOR S/N : 79423	BKG FILE : B230.CNF;83
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 37.5123	BKG DATE : 21-FEB-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 27-FEB-2010 16:36:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W230.CNF;28
% YIELD : 71.268		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.3152E+01 pCi/G	NOMINAL : 3.3152E+01 pCi/G
RESULTS : 2.0786E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

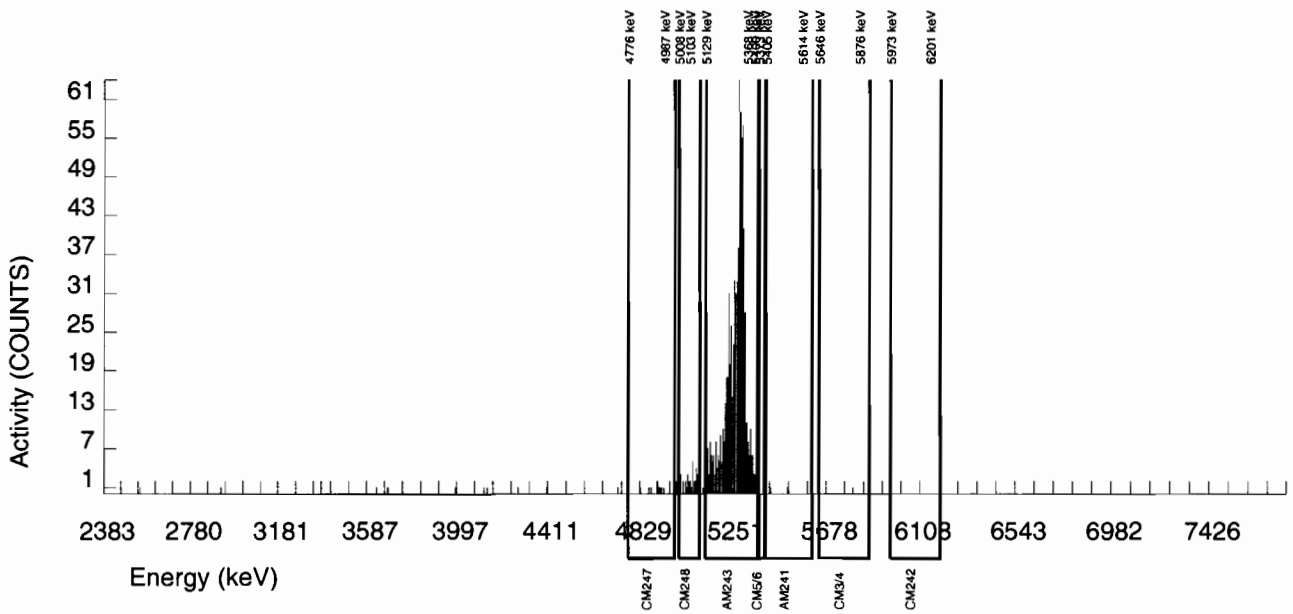
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5469.334	74.087	2.000	0.646	0.000	2.8409	99.94000	1.09E-03	1.69E-03	1.11E-02	2.69E-02	1.69E-03
AM243	5270.000	5271.581	42.650	778.000	778.000	0.000	0.0000	99.78000	1.31E+00	9.28E-02	0.00E+00	4.58E-03	4.71E-02
CM-242	6102.000	6086.814	0.000	0.000	0.000	0.000	4.3413	100.0000	0.00E+00	1.73E-03	1.70E-02	3.86E-02	1.73E-03
CM-3/4	5795.020	5806.538	4.939	1.000	1.000	0.000	5.1799	100.0000	1.69E-03	1.69E-03	2.03E-02	4.52E-02	1.69E-03
CM-5/6	5386.000	5377.900	0.000	6.000	6.000	0.000	14.2480	86.09000	1.17E-02	4.85E-03	6.49E-02	1.35E-01	4.79E-03
CM-247	4946.000	4917.133	59.270	13.000	12.000	1.000	13.7917	79.30000	2.55E-02	8.10E-03	6.82E-02	1.42E-01	7.95E-03
CM-248	5078.600	5062.570	0.000	37.000	37.000	0.000	19.5080	91.00000	6.85E-02	1.20E-02	8.40E-02	1.73E-01	1.13E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953337	CHAMBER : 231	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202043670_AM	DETECTOR S/N : 79424	BKG FILE : B231.CNF;83
SAMPLE QTY : 1.265 G	AVERAGE %EFFICIENCY : 38.8428	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 16:36:55	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W231.CNF;28
% YIELD : 72.100		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.1028E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

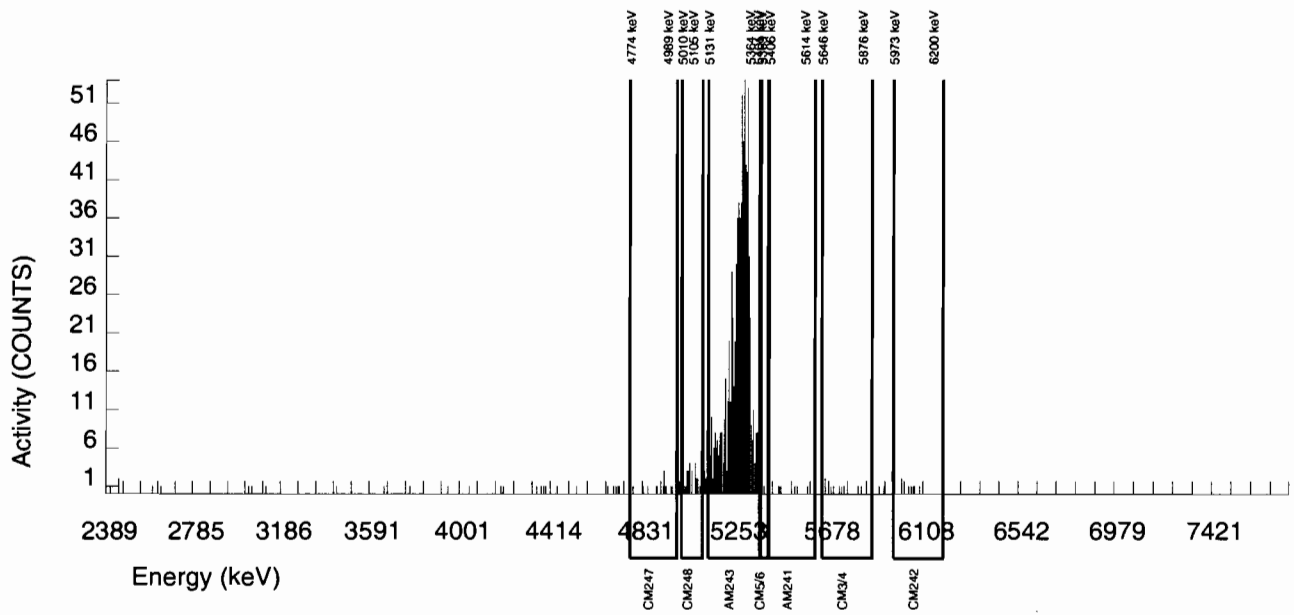
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5483.498	0.000	8.000	6.582	0.000	2.8409	99.94000	8.37E-03	3.30E-03	8.41E-03	2.03E-02	3.26E-03
AM243	5270.000	5274.820	77.034	816.000	815.000	1.000	1.0000	99.78000	1.04E+00	7.25E-02	2.96E-03	9.38E-03	3.64E-02
CM-242	6102.000	6051.205	4.934	8.000	8.000	0.000	4.3413	100.0000	1.11E-02	3.97E-03	1.28E-02	2.91E-02	3.92E-03
CM-3/4	5795.020	5734.625	4.934	9.000	8.000	1.000	5.1799	100.0000	1.02E-02	4.08E-03	1.53E-02	3.41E-02	4.03E-03
CM-5/6	5386.000	5375.674	0.000	14.000	14.000	0.000	14.2480	86.09000	2.07E-02	5.67E-03	4.90E-02	1.02E-01	5.53E-03
CM-247	4946.000	4917.739	0.000	16.000	15.000	1.000	13.7917	79.30000	2.41E-02	6.77E-03	5.14E-02	1.07E-01	6.61E-03
CM-248	5078.600	5057.972	0.000	33.000	33.000	0.000	19.5080	91.00000	4.61E-02	8.50E-03	6.34E-02	1.31E-01	8.03E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953337	CHAMBER : 232	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202043671_AM	DETECTOR S/N : 79425	BKG FILE : B232.CNF;85
SAMPLE QTY : 0.105 G	AVERAGE %EFFICIENCY : 37.1929	BKG DATE : 21-FEB-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 27-FEB-2010 16:36:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W232.CNF;28
% YIELD : 92.390		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.3152E+01 pCi/G	NOMINAL : 3.3152E+01 pCi/G
RESULTS : 2.6946E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

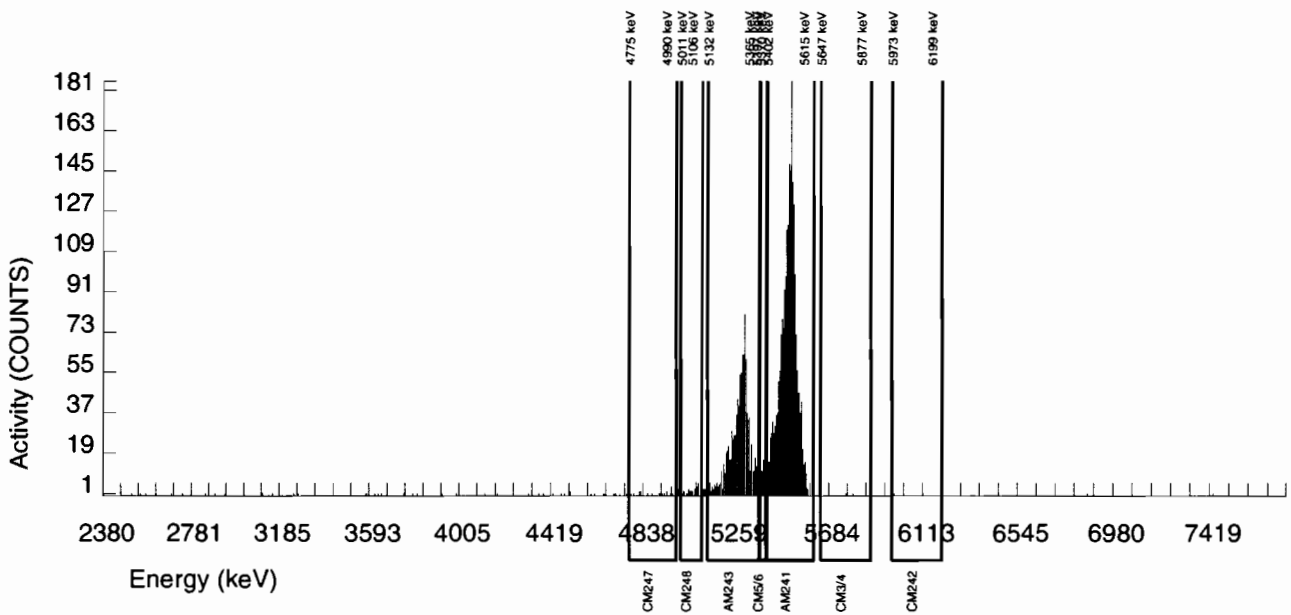
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5503.940	45.681	2250.000	2244.260	4.000	2.8409	99.94000	2.80E+01	1.94E+00	8.26E-02	1.99E-01	5.93E-01
AM243	5270.000	5283.014	40.972	1002.000	1000.000	2.000	1.4142	99.78000	1.25E+01	9.16E-01	4.12E-02	1.16E-01	3.96E-01
CM-242	6102.000	5989.144	4.990	1.000	1.000	0.000	4.3413	100.0000	1.28E-02	1.28E-02	1.26E-01	2.86E-01	1.28E-02
CM-3/4	5795.020	5815.948	0.000	3.000	2.000	1.000	5.1799	100.0000	2.50E-02	2.50E-02	1.50E-01	3.35E-01	2.50E-02
CM-5/6	5386.000	5384.177	0.000	80.000	79.000	1.000	14.2480	86.09000	1.15E+00	1.51E-01	4.81E-01	1.00E+00	1.31E-01
CM-247	4946.000	4897.607	6.654	25.000	25.000	0.000	13.7917	79.30000	3.94E-01	8.29E-02	5.05E-01	1.05E+00	7.87E-02
CM-248	5078.600	5056.505	0.000	38.000	38.000	0.000	19.5080	91.00000	5.21E-01	9.13E-02	6.23E-01	1.28E+00	8.46E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Radiochemistry Batch Checklist, Rev10

Batch# 953338 Product: Pu Date: 3/1/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/1/10

Secondary Review Performed By: [illegible] 3/1/10

3/4

Plutonium Que Sheet

15-FEB-10

Batch #: 953338 Analyst: CXM2 First Client Due Date:04-MAR-10 Internal Due Date:22-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1375-A Expiration Date: 1/8/11 Vol: 0.1mL

LCS Isotope(s): Pu-239/Pu-238 LCS Code: 0244-B Expiration Date: 4/30/20 Vol: 0.105 g * SRM

Spike Isotope(s): Pu-239/Pu-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 2/22/10 Initials: CMM Pipet ID: 2971058 Balance ID: 50410272 Witness: Me 2/23/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g / l / f)	Pu Det #
246837001-1	RE15-10-7992	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	1	1	1.264	23
246837002-1	RE15-10-7991	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	2	2	1.266	24
246837003-1	RE15-10-7990	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	3	3	1.264	25
246837004-1	RE15-10-7987	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	4	4	1.260	26
246837005-1	RE15-10-7988	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	5	5	1.277	27
246837006-1	RE15-10-7989	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	6	6	1.254	28
246841001-1	RE16-10-1214	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	7	7	1.253	29
246841002-1	RE16-10-1215	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	8	8	1.265	30
246841003-1	RE16-10-1236	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	9	9	1.252	37
246843002-1	RE16-10-2771	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	10	10	1.255	38
246843003-1	RE16-10-2774	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	11	11	1.263	39
246843004-1	RE16-10-2770	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	12	12	1.257	40
246846001-1	RE16-10-2915	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	13	13	1.272	41
246846002-1	RE16-10-2914	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	14	14	1.275	42
246847001-1	RE16-10-2828	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	15	15	1.256	209
246847002-1	RE16-10-2829	SAMPLE		.05 pCi/g	SOIL	LANL010	08-FEB-10	16	16	1.251	210
1202043672-1	MB for batch 953338	MB		.05 pCi/g	SOIL	QC ACCOUNT		17	17	1	211
1202043673-1	RE15-10-7992(246837001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	08-FEB-10	18	18	1.265	212
1202043674-1	LCS for batch 953338	LCS		.05 pCi/g	SOIL	QC ACCOUNT		19	19	0.105	213

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: 3/1/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 953338

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202043673	DUP	Plutonium-238	1.27 g	0.00	0.000986	0.0161	-.00096850	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00	0.000986	0.0121	.002897638	pCi/g	YES
1202043674	LCS	Plutonium-238	0.105 g	6.71	0.475	0.188	-.01171429	pCi/g	NO
		Plutonium-239/240	0.105 g	35.1	2.11	0.142	.035047619	pCi/g	NO
1202043672	MB	Plutonium-238	1.00 g	-0.00123	0.00173	0.020	-.00123	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00368	0.00213	0.0151	.00368	pCi/g	YES
246837001	RE15-10-7992	Plutonium-238	1.26 g	-0.00118	0.00611	0.0192	-.00097619	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00118	0.00311	0.0145	.002920635	pCi/g	YES
246837002	RE15-10-7991	Plutonium-238	1.27 g	-0.00236	0.00553	0.0193	-.00096850	pCi/g	NO
		Plutonium-239/240	1.27 g	-0.00236	0.00373	0.0145	.002897638	pCi/g	YES
246837003	RE15-10-7990	Plutonium-238	1.26 g	-0.00242	0.00726	0.0198	-.00097619	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00363	0.00271	0.0149	.002920635	pCi/g	YES
246837004	RE15-10-7987	Plutonium-238	1.26 g	0.00543	0.00334	0.0222	-.00097619	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0367	0.00757	0.0167	.002920635	pCi/g	NO
246837005	RE15-10-7988	Plutonium-238	1.28 g	-0.00122	0.00173	0.020	-.00096094	pCi/g	NO
		Plutonium-239/240	1.28 g	0.00122	0.00366	0.015	.002875	pCi/g	YES
246837006	RE15-10-7989	Plutonium-238	1.25 g	-0.00248	0.00249	0.0203	-.000984	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0137	0.00454	0.0153	.002944	pCi/g	YES
246841001	RE16-10-1214	Plutonium-238	1.25 g	-0.00503	0.00562	0.0205	-.000984	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00503	0.00309	0.0155	.002944	pCi/g	YES
246841002	RE16-10-1215	Plutonium-238	1.27 g	0.00244	0.00546	0.020	-.00096850	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00	0.00299	0.015	.002897638	pCi/g	YES
246841003	RE16-10-1236	Plutonium-238	1.25 g	0.0012	0.00573	0.0195	-.000984	pCi/g	NO
		Plutonium-239/240	1.25 g	7.12E-11	0.00169	0.0147	.002944	pCi/g	YES
246843002	RE16-10-2771	Plutonium-238	1.26 g	-0.00484	0.00484	0.0198	-.00097619	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00484	0.00343	0.0149	.002920635	pCi/g	YES
246843003	RE16-10-2774	Plutonium-238	1.26 g	-0.00208	0.00489	0.017	-.00097619	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00104	0.0018	0.0128	.002920635	pCi/g	YES
246843004	RE16-10-2770	Plutonium-238	1.26 g	0.00123	0.00123	0.020	-.00097619	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00612	0.00326	0.0151	.002920635	pCi/g	YES
246846001	RE16-10-2915	Plutonium-238	1.27 g	-0.00119	0.00169	0.0195	-.00096850	pCi/g	NO
		Plutonium-239/240	1.27 g	-0.00119	0.00207	0.0147	.002897638	pCi/g	YES
246846002	RE16-10-2914	Plutonium-238	1.28 g	2.58E-10	0.00306	0.0177	-.00096094	pCi/g	NO
		Plutonium-239/240	1.28 g	0.00433	0.0046	0.0133	.002875	pCi/g	YES
246847001	RE16-10-2828	Plutonium-238	1.26 g	0.00	0.000995	0.0162	-.00097619	pCi/g	NO
		Plutonium-239/240	1.26 g	0.000993	0.000994	0.0122	.002920635	pCi/g	YES
246847002	RE16-10-2829	Plutonium-238	1.25 g	-0.00106	0.0015	0.0174	-.000984	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00106	0.00106	0.0131	.002944	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953338	CHAMBER : 023	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246837001_PU	DETECTOR S/N : 78264	BKG FILE : B023.CNF;1111
SAMPLE QTY : 1.264 G	AVERAGE %EFFICIENCY : 32.5935	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 19:56:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W023.CNF;301
% YIELD : 93.111		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1479E+00 dpm		

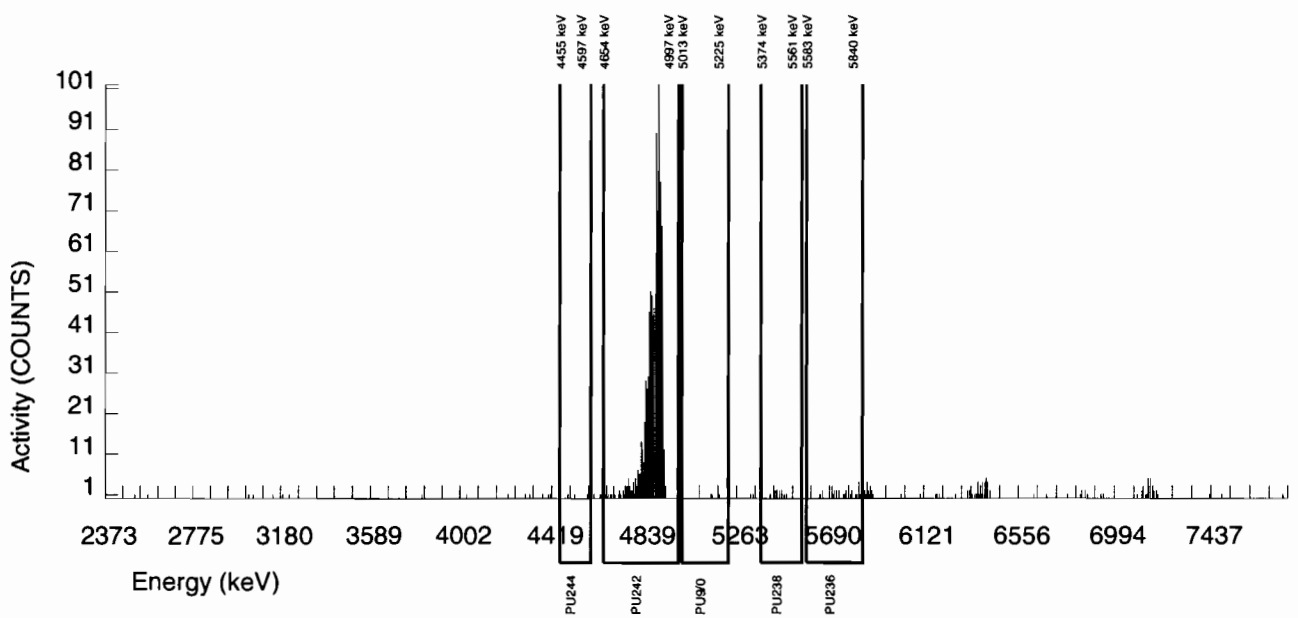
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5758.721	119.913	31.000	10.000	21.000	2.6925	100.0000	1.19E-02	8.60E-03	7.36E-03	1.79E-02	8.58E-03
PU-238	5499.000	5460.153	34.359	13.000	-1.000	14.000	2.9312	99.90000	-1.18E-03	6.11E-03	8.02E-03	1.92E-02	6.11E-03
PU-9/0	5155.000	5165.065	39.356	3.000	-1.000	4.000	2.0604	99.90000	-1.18E-03	3.11E-03	5.63E-03	1.45E-02	3.11E-03
PU242	4890.000	4889.789	32.192	1028.000	1026.000	2.000	1.4142	100.0000	1.20E+00	7.16E-02	3.86E-03	1.09E-02	3.77E-02
PU-244	4589.000	4516.772	0.000	4.000	2.000	2.000	3.7241	99.90000	2.35E-03	2.88E-03	1.02E-02	2.36E-02	2.88E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953338	CHAMBER : 024	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246837002_PU	DETECTOR S/N : 76542	BKG FILE : B024.CNF;1104
SAMPLE QTY : 1.266 G	AVERAGE %EFFICIENCY : 33.3717	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 19:56:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W024.CNF;301
% YIELD : 90.585		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0625E+00 dpm		

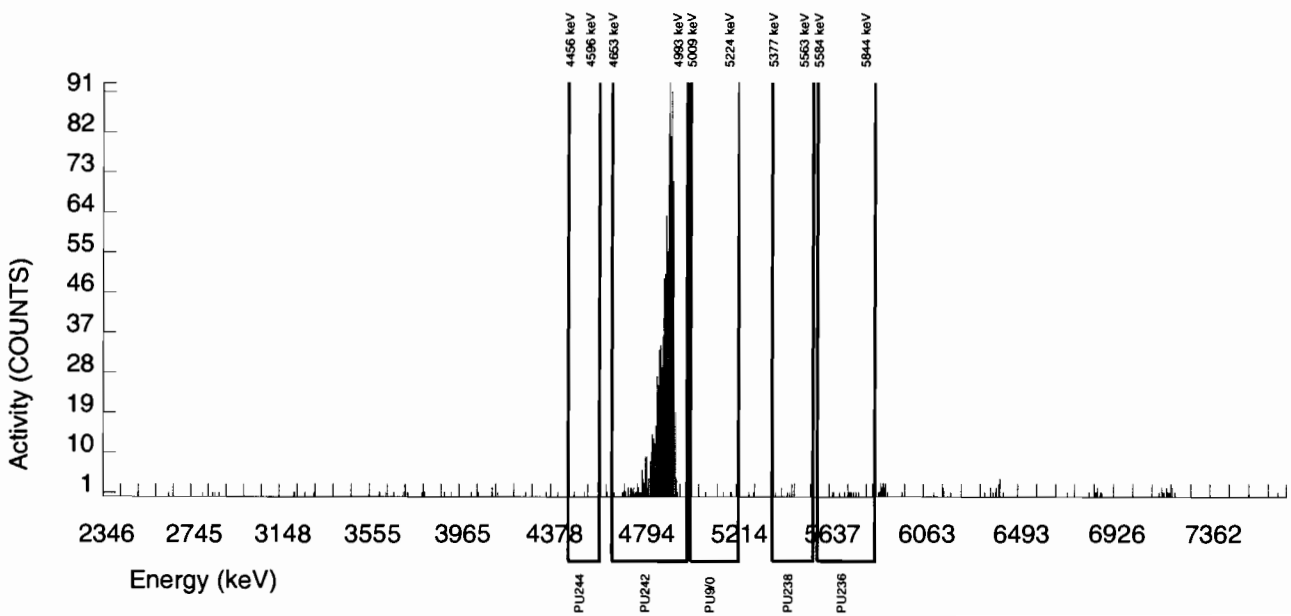
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5765.097	0.000	17.000	0.000	17.000	2.6925	100.0000	0.00E+00	6.96E-03	7.37E-03	1.79E-02	6.96E-03
PU-238	5499.000	5446.132	58.470	10.000	-2.000	12.000	2.9312	99.90000	-2.36E-03	5.53E-03	8.03E-03	1.93E-02	5.53E-03
PU-9/0	5155.000	5158.593	114.451	4.000	-2.000	6.000	2.0604	99.90000	-2.36E-03	3.73E-03	5.65E-03	1.45E-02	3.73E-03
PU242	4890.000	4897.813	45.643	1024.000	1022.000	2.000	1.4142	100.0000	1.20E+00	7.16E-02	3.87E-03	1.09E-02	3.77E-02
PU-244	4589.000	4523.114	64.690	3.000	3.000	0.000	3.7241	99.90000	3.53E-03	2.05E-03	1.02E-02	2.36E-02	2.04E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953338	CHAMBER : 025	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246837003_PU	DETECTOR S/N : 45-149AA5	BKG FILE : B025.CNF;1115
SAMPLE QTY : 1.264 G	AVERAGE %EFFICIENCY : 32.2436	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 19:45:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W025.CNF;328
% YIELD : 91.461		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0921E+00 dpm		

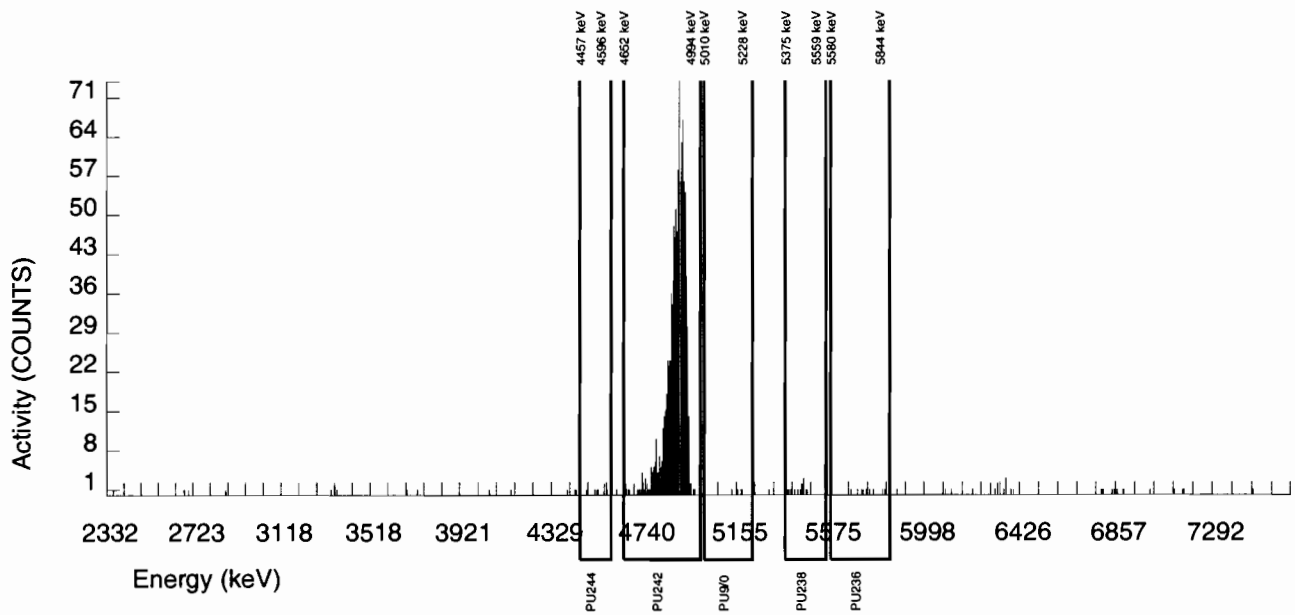
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5750.728	145.993	9.000	0.000	9.000	2.6925	100.0000	0.00E+00	5.20E-03	7.57E-03	1.84E-02	5.20E-03
PU-238	5499.000	5446.082	14.194	17.000	-2.000	19.000	2.9312	99.90000	-2.42E-03	7.26E-03	8.25E-03	1.98E-02	7.26E-03
PU-9/0	5155.000	5168.438	48.664	4.000	3.000	1.000	2.0604	99.90000	3.63E-03	2.71E-03	5.80E-03	1.49E-02	2.70E-03
PU242	4890.000	4889.969	58.429	999.000	997.000	2.000	1.4142	100.0000	1.20E+00	7.23E-02	3.98E-03	1.12E-02	3.82E-02
PU-244	4589.000	4553.086	4.866	8.000	8.000	0.000	3.7241	99.90000	9.68E-03	3.46E-03	1.05E-02	2.42E-02	3.42E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953338	CHAMBER : 026	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246837004_PU	DETECTOR S/N : 78204	BKG FILE : B026.CNF;1116
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 31.5547	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 19:45:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W026.CNF;302
% YIELD : 83.522		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8237E+00 dpm		

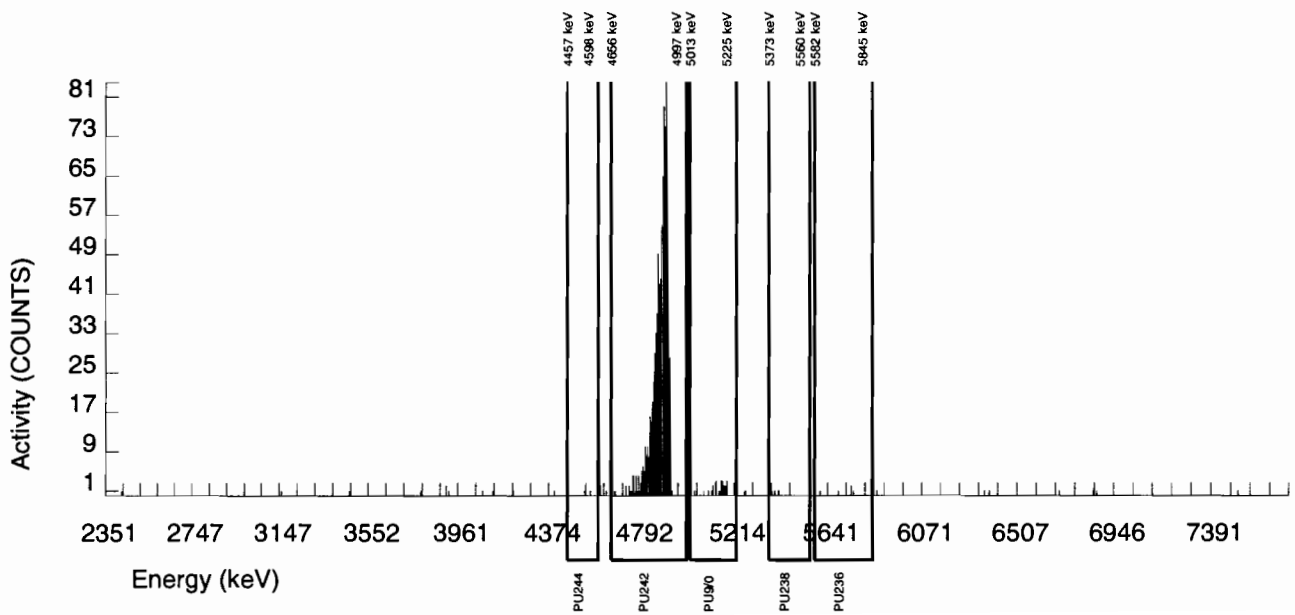
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5715.597	4.918	5.000	2.000	3.000	2.6925	100.0000	2.75E-03	3.89E-03	8.50E-03	2.07E-02	3.89E-03
PU-238	5499.000	5405.364	49.185	5.000	4.000	1.000	2.9312	99.90000	5.43E-03	3.34E-03	9.26E-03	2.22E-02	3.33E-03
PU-9/0	5155.000	5149.612	63.530	28.000	27.000	1.000	2.0604	99.90000	3.67E-02	7.57E-03	6.51E-03	1.67E-02	7.31E-03
PU242	4890.000	4884.377	48.174	893.000	891.000	2.000	1.4142	100.0000	1.21E+00	7.68E-02	4.46E-03	1.26E-02	4.06E-02
PU-244	4589.000	4553.712	29.511	2.000	2.000	0.000	3.7241	99.90000	2.72E-03	1.93E-03	1.18E-02	2.72E-02	1.92E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953338	CHAMBER : 027	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246837005_PU	DETECTOR S/N : 42484	BKG FILE : B027.CNF;1122
SAMPLE QTY : 1.277 G	AVERAGE %EFFICIENCY : 33.6745	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 19:45:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W027.CNF;329
% YIELD : 85.906		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9043E+00 dpm		

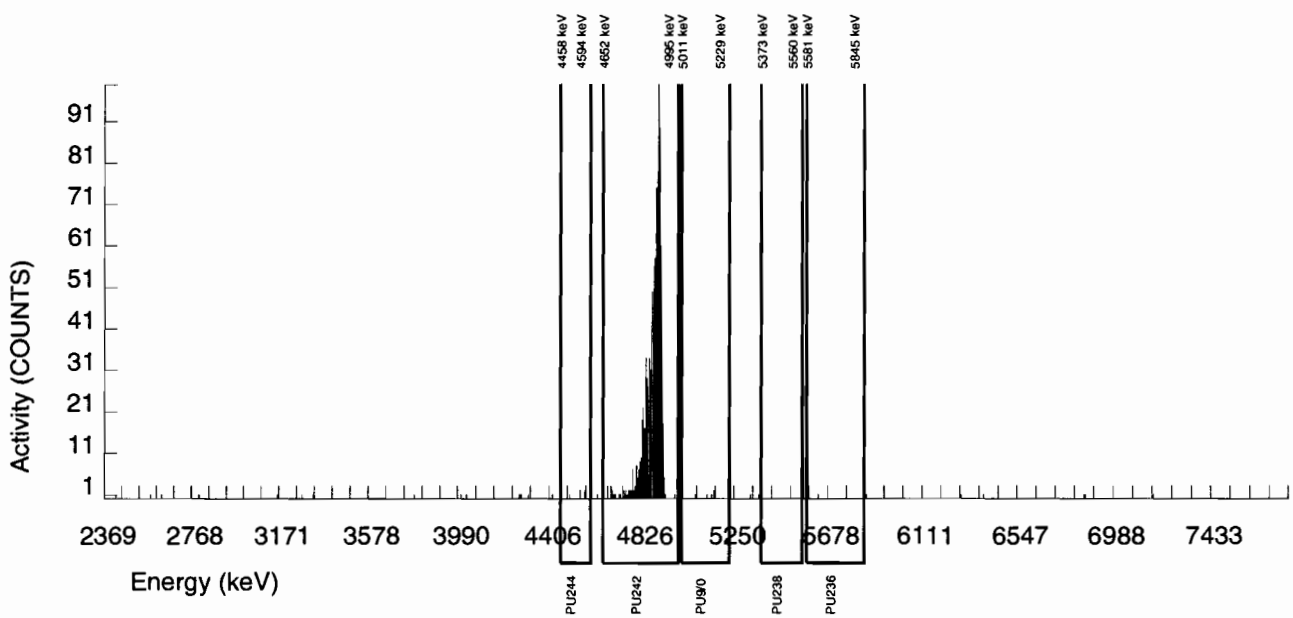
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5640.527	4.962	1.000	-1.000	2.000	2.6925	100.0000	-1.24E-03	2.14E-03	7.64E-03	1.86E-02	2.14E-03
PU-238	5499.000	5466.186	0.000	0.000	-1.000	1.000	2.9312	99.90000	-1.22E-03	1.73E-03	8.32E-03	2.00E-02	1.73E-03
PU-9/0	5155.000	5139.224	4.962	5.000	1.000	4.000	2.0604	99.90000	1.22E-03	3.66E-03	5.85E-03	1.50E-02	3.66E-03
PU242	4890.000	4884.160	37.134	978.000	978.000	0.000	0.0000	100.0000	1.19E+00	7.38E-02	0.00E+00	3.30E-03	3.81E-02
PU-244	4589.000	4537.500	24.811	6.000	4.000	2.000	3.7241	99.90000	4.88E-03	3.46E-03	1.06E-02	2.45E-02	3.45E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953338	CHAMBER : 028	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246837006_PU	DETECTOR S/N : 78792	BKG FILE : B028.CNF;1126
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 30.7898	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 19:45:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W028.CNF;321
% YIELD : 94.051		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1796E+00 dpm		

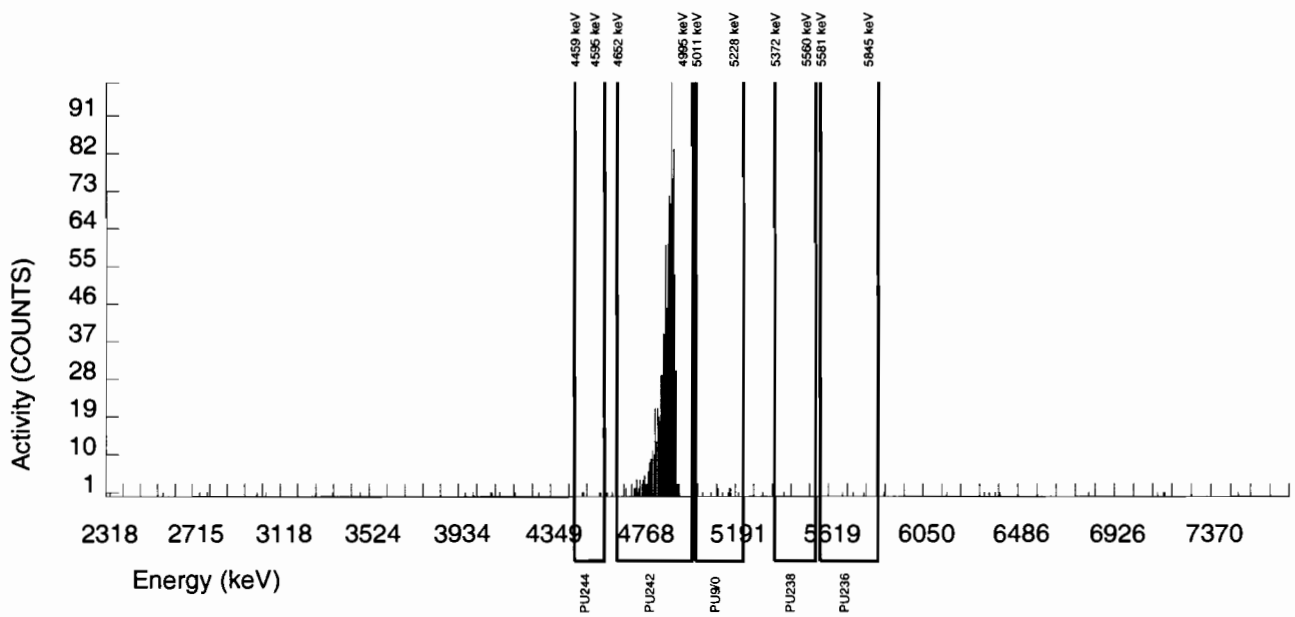
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5736.929	93.984	3.000	-1.000	4.000	2.6925	100.0000	-1.26E-03	3.33E-03	7.77E-03	1.89E-02	3.33E-03
PU-238	5499.000	5420.462	4.947	1.000	-2.000	3.000	2.9312	99.90000	-2.48E-03	2.49E-03	8.47E-03	2.03E-02	2.48E-03
PU-9/0	5155.000	5140.347	61.677	12.000	11.000	1.000	2.0604	99.90000	1.37E-02	4.54E-03	5.95E-03	1.53E-02	4.48E-03
PU242	4890.000	4881.102	42.779	983.000	979.000	4.000	2.0000	100.0000	1.21E+00	7.53E-02	5.77E-03	1.49E-02	3.90E-02
PU-244	4589.000	4538.181	83.472	5.000	4.000	1.000	3.7241	99.90000	4.97E-03	3.05E-03	1.08E-02	2.49E-02	3.04E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953338	CHAMBER : 211	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202043672_PU	DETECTOR S/N : 79190	BKG FILE : B211.CNF;83
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 38.1959	BKG DATE : 21-FEB-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 27-FEB-2010 16:36:11	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W211.CNF;29
% YIELD : 96.336		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2569E+00 dpm		

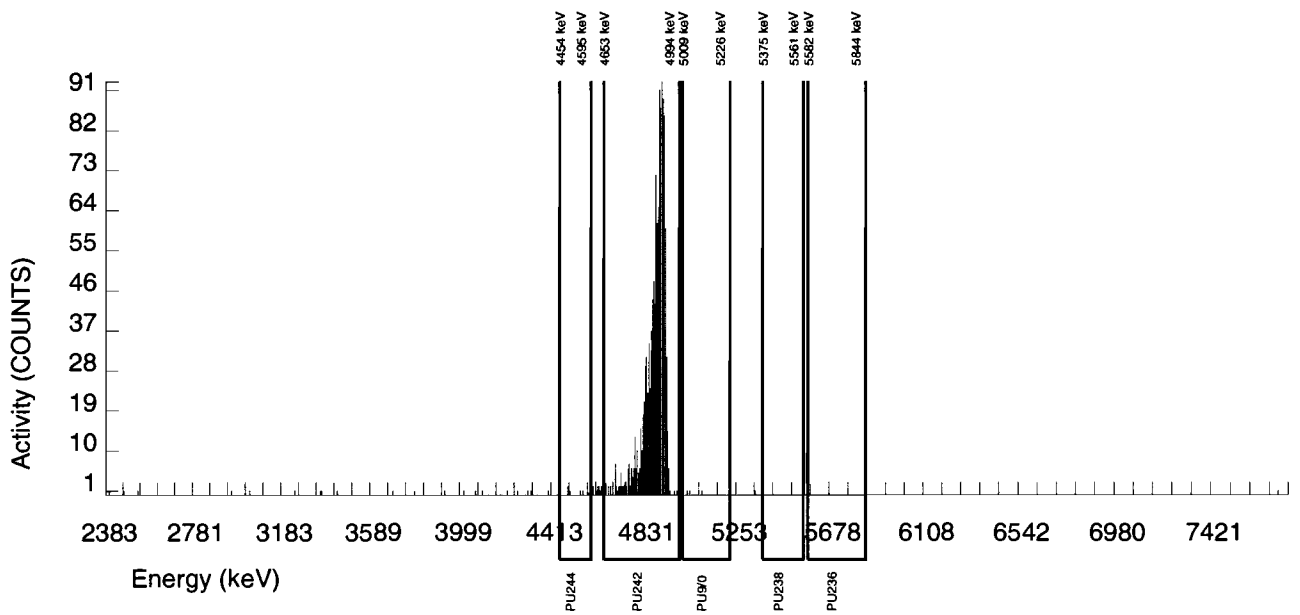
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.125	0.000	0.000	-1.000	1.000	2.6925	100.0000	-1.23E-03	1.74E-03	7.67E-03	1.87E-02	1.74E-03
PU-238	5499.000	5467.615	0.000	0.000	-1.000	1.000	2.9312	99.90000	-1.23E-03	1.73E-03	8.36E-03	2.00E-02	1.73E-03
PU-9/0	5155.000	5062.220	69.316	3.000	3.000	0.000	2.0604	99.90000	3.68E-03	2.13E-03	5.87E-03	1.51E-02	2.12E-03
PU242	4890.000	4887.552	53.637	1244.000	1244.000	0.000	0.0000	100.0000	1.52E+00	8.58E-02	0.00E+00	3.32E-03	4.32E-02
PU-244	4589.000	4548.175	0.000	11.000	11.000	0.000	3.7241	99.90000	1.35E-02	4.12E-03	1.06E-02	2.46E-02	4.06E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953338	CHAMBER : 212	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202043673_PU	DETECTOR S/N : 79191	BKG FILE : B212.CNF;83
SAMPLE QTY : 1.265 G	AVERAGE %EFFICIENCY : 37.7948	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 16:36:14	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W212.CNF;28
% YIELD : 95.793		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2385E+00 dpm		

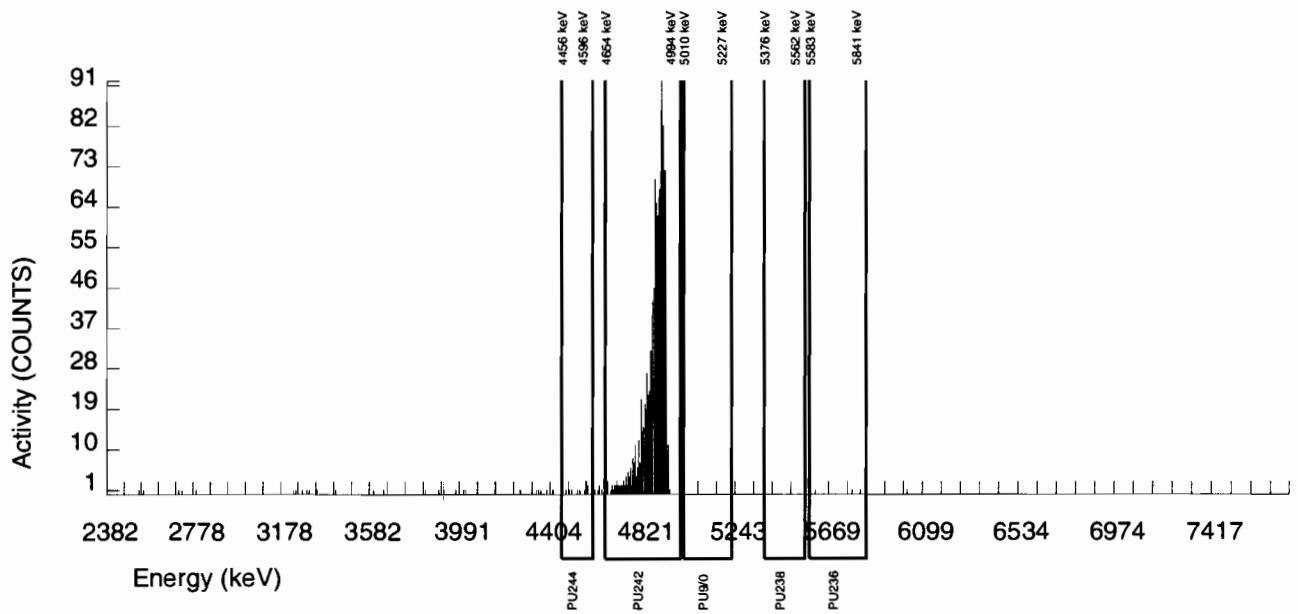
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5738.632	191.735	3.000	1.000	2.000	2.6925	100.0000	9.97E-04	2.23E-03	6.16E-03	1.50E-02	2.23E-03
PU-238	5499.000	5468.666	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	9.86E-04	6.71E-03	1.61E-02	9.85E-04
PU-9/0	5155.000	5118.465	0.000	0.000	0.000	0.000	2.0604	99.90000	0.00E+00	9.86E-04	4.72E-03	1.21E-02	9.85E-04
PU242	4890.000	4884.575	53.263	1225.000	1224.000	1.000	1.0000	100.0000	1.20E+00	6.81E-02	2.29E-03	7.24E-03	3.44E-02
PU-244	4589.000	4545.437	14.687	11.000	11.000	0.000	3.7241	99.90000	1.08E-02	3.31E-03	8.53E-03	1.97E-02	3.27E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953338	CHAMBER : 213	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202043674_PU	DETECTOR S/N : 79192	BKG FILE : B213.CNF;83
SAMPLE QTY : 0.105 G	AVERAGE %EFFICIENCY : 37.3130	BKG DATE : 21-FEB-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 27-FEB-2010 16:36:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W213.CNF;28
% YIELD : 99.884		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3768E+00 dpm		

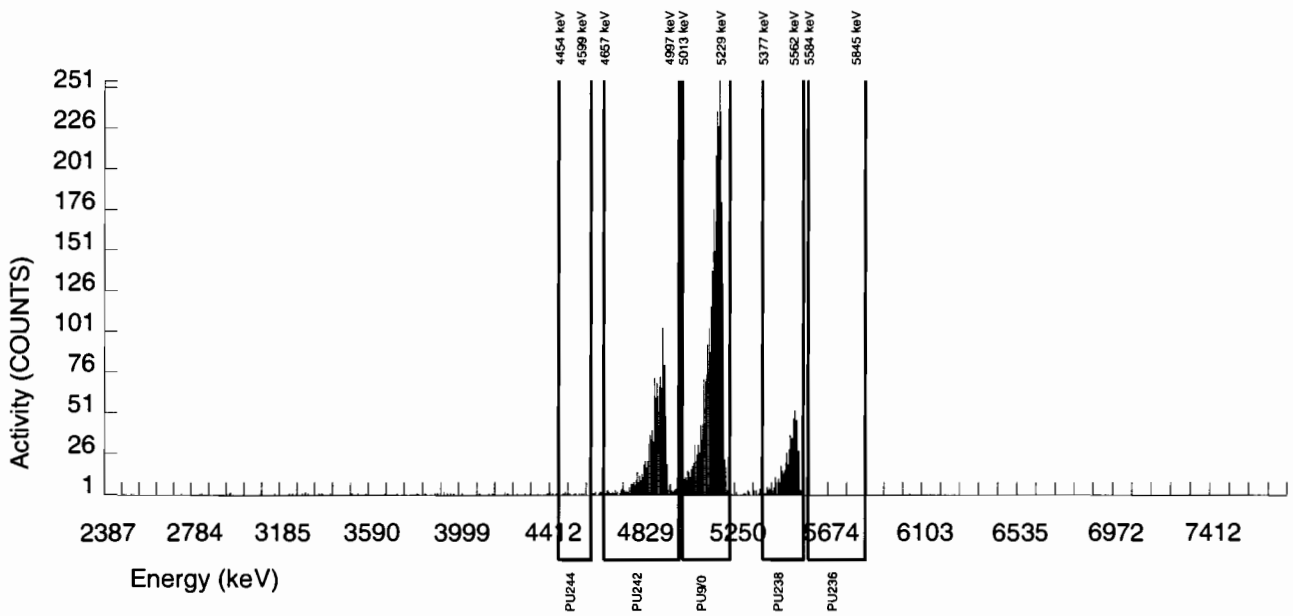
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5714.306	0.000	0.000	-1.000	1.000	2.6925	100.0000	-1.16E-02	1.64E-02	7.21E-02	1.75E-01	1.63E-02
PU-238	5499.000	5505.011	41.305	582.000	582.000	0.000	2.9312	99.90000	6.71E+00	4.75E-01	7.86E-02	1.88E-01	2.78E-01
PU-9/0	5155.000	5158.136	46.949	3046.000	3044.000	2.000	2.0604	99.90000	3.51E+01	2.11E+00	5.52E-02	1.42E-01	6.36E-01
PU242	4890.000	4894.872	51.042	1260.000	1260.000	0.000	0.0000	100.0000	1.45E+01	9.28E-01	0.00E+00	3.12E-02	4.09E-01
PU-244	4589.000	4510.376	34.570	13.000	13.000	0.000	3.7241	99.90000	1.50E-01	4.24E-02	9.98E-02	2.31E-01	4.15E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).



Radiochemistry Batch Checklist, Rev10

Batch# 953339 Product: U Date: 3/3/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/3/10

Secondary Review Performed By: [illegible] 3/3/10

3/4

P

Uranium Que Sheet

15-FEB-10

Batch #: 953339 Analyst: CXM2 First Client Due Date:04-MAR-10 Internal Due Date22-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1mL

LCS Isotope: U-238 LCS Code: 0244-A Expiration Date: 10/31/20 Vol: 0.106g * SRM

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 2/22/10 Initials: CMM Pipet ID: 2971058 Balance ID: 50410272 Witness: MW 2/23/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	U Det #
246837001-1	RE15-10-7992	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	1	1	0.506	1
246837002-1	RE15-10-7991	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	2	2	0.519	2
246837003-1	RE15-10-7990	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	3	3	0.506	3
246837004-1	RE15-10-7987	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	4	4	0.507	152 ~~4~~ DG 5/5/10
246837005-1	RE15-10-7988	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	5	5	0.504	5
246837006-1	RE15-10-7989	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	6	6	0.503	6
246841001-1	RE16-10-1214	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	7	7	0.501	147
246841002-1	RE16-10-1215	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	8	8	0.502	148
246841003-1	RE16-10-1236	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	9	9	0.524	149
246843002-1	RE16-10-2771	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	10	10	0.513	150
246843003-1	RE16-10-2774	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	11	11	0.501	151
246843004-1	RE16-10-2770	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	12	12	0.507	152
246846001-1	RE16-10-2915	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	13	13	0.510	153
246846002-1	RE16-10-2914	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	14	14	0.502	154
246847001-1	RE16-10-2828	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	15	15	0.504	155
246847002-1	RE16-10-2829	SAMPLE		.1 pCi/g	SOIL	LANL010	08-FEB-10	16	16	0.511	156
1202043678-1	MB for batch 953339	MB		.1 pCi/g	SOIL	QC ACCOUNT		17	17	1	157
1202043679-1	RE15-10-7992(246837001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	08-FEB-10	18	18	0.506	158
1202043680-1	LCS for batch 953339	LCS		.1 pCi/g	SOIL	QC ACCOUNT		19	19	0.106	159

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: 3/3/10

Blank Correction Report

Batch ID 953339

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202043679	DUP	Uranium-233/234	0.506 g	0.708	0.0744	0.106	.011166008	pCi/g	NO
		Uranium-235/236	0.506 g	0.0466	0.0159	0.0674	.004703557	pCi/g	NO
		Uranium-238	0.506 g	0.947	0.0929	0.0722	.019031621	pCi/g	NO
1202043680	LCS	Uranium-233/234	0.106 g	6.38	0.609	0.497	.053301887	pCi/g	NO
		Uranium-235/236	0.106 g	0.390	0.102	0.317	.022452830	pCi/g	NO
		Uranium-238	0.106 g	5.91	0.571	0.340	.090849057	pCi/g	NO
1202043678	MB	Uranium-233/234	1.00 g	0.00565	0.00332	0.0486	.00565	pCi/g	YES
		Uranium-235/236	1.00 g	0.00238	0.00239	0.031	.00238	pCi/g	YES
		Uranium-238	1.00 g	0.00963	0.00514	0.0332	.00963	pCi/g	YES
246837001	RE15-10-7992	Uranium-233/234	0.506 g	0.776	0.0883	0.144	.011166008	pCi/g	NO
		Uranium-235/236	0.506 g	0.0141	0.010	0.0916	.004703557	pCi/g	YES
		Uranium-238	0.506 g	0.786	0.0895	0.0981	.019031621	pCi/g	NO
246837002	RE15-10-7991	Uranium-233/234	0.519 g	0.721	0.0738	0.0983	.010886320	pCi/g	NO
		Uranium-235/236	0.519 g	0.0674	0.0199	0.0627	.004585742	pCi/g	NO
		Uranium-238	0.519 g	0.997	0.0945	0.0671	.018554913	pCi/g	NO
246837003	RE15-10-7990	Uranium-233/234	0.506 g	0.779	0.0758	0.089	.011166008	pCi/g	NO
		Uranium-235/236	0.506 g	0.0915	0.0219	0.0567	.004703557	pCi/g	NO
		Uranium-238	0.506 g	0.864	0.0822	0.0607	.019031621	pCi/g	NO
246837004	RE15-10-7987	Uranium-233/234	0.507 g	4.53	0.365	0.129	.011143984	pCi/g	NO
		Uranium-235/236	0.507 g	0.340	0.0526	0.082	.004694280	pCi/g	NO
		Uranium-238	0.507 g	13.3	1.01	0.0878	.018994083	pCi/g	NO
246837005	RE15-10-7988	Uranium-233/234	0.504 g	0.872	0.0838	0.0922	.011210317	pCi/g	NO
		Uranium-235/236	0.504 g	0.0451	0.0146	0.0588	.004722222	pCi/g	NO
		Uranium-238	0.504 g	0.719	0.0721	0.0629	.019107143	pCi/g	NO
246837006	RE15-10-7989	Uranium-233/234	0.503 g	1.95	0.162	0.0936	.011232604	pCi/g	NO
		Uranium-235/236	0.503 g	0.138	0.0277	0.0597	.004731610	pCi/g	NO
		Uranium-238	0.503 g	3.68	0.285	0.0639	.019145129	pCi/g	NO
246841001	RE16-10-1214	Uranium-233/234	0.501 g	0.988	0.0945	0.0974	.011277445	pCi/g	NO
		Uranium-235/236	0.501 g	0.0572	0.017	0.0621	.004750499	pCi/g	NO
		Uranium-238	0.501 g	1.08	0.101	0.0665	.019221557	pCi/g	NO
246841002	RE16-10-1215	Uranium-233/234	0.502 g	0.960	0.0924	0.100	.011254980	pCi/g	NO
		Uranium-235/236	0.502 g	0.0491	0.0159	0.0639	.004741036	pCi/g	NO
		Uranium-238	0.502 g	0.893	0.0872	0.0684	.019183267	pCi/g	NO
246841003	RE16-10-1236	Uranium-233/234	0.524 g	0.841	0.0823	0.096	.010782443	pCi/g	NO
		Uranium-235/236	0.524 g	0.0565	0.0181	0.0612	.004541985	pCi/g	NO
		Uranium-238	0.524 g	0.868	0.0845	0.0656	.018377863	pCi/g	NO
246843002	RE16-10-2771	Uranium-233/234	0.513 g	0.680	0.0722	0.103	.011013645	pCi/g	NO
		Uranium-235/236	0.513 g	0.0354	0.0136	0.0659	.004639376	pCi/g	NO
		Uranium-238	0.513 g	0.766	0.0783	0.0706	.018771930	pCi/g	NO
246843003	RE16-10-2774	Uranium-233/234	0.501 g	0.890	0.089	0.108	.011277445	pCi/g	NO
		Uranium-235/236	0.501 g	0.0797	0.0214	0.0691	.004750499	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
246843003	RE16-10-2774	Uranium-238	0.501 g	0.859	0.0865	0.074	.019221557	pCi/g	NO
246843004	RE16-10-2770	Uranium-233/234	0.507 g	0.704	0.0752	0.110	.011143984	pCi/g	NO
		Uranium-235/236	0.507 g	0.102	0.0245	0.0699	.004694280	pCi/g	NO
		Uranium-238	0.507 g	0.795	0.0822	0.0748	.018994083	pCi/g	NO
246846001	RE16-10-2915	Uranium-233/234	0.510 g	0.472	0.058	0.115	.011078431	pCi/g	NO
		Uranium-235/236	0.510 g	0.00566	0.0127	0.0736	.004666667	pCi/g	YES
		Uranium-238	0.510 g	0.503	0.0602	0.0788	.018882353	pCi/g	NO
246846002	RE16-10-2914	Uranium-233/234	0.502 g	0.619	0.0695	0.116	.011254980	pCi/g	NO
		Uranium-235/236	0.502 g	0.051	0.0174	0.0737	.004741036	pCi/g	NO
		Uranium-238	0.502 g	0.641	0.0713	0.0789	.019183267	pCi/g	NO
246847001	RE16-10-2828	Uranium-233/234	0.504 g	0.612	0.0672	0.104	.011210317	pCi/g	NO
		Uranium-235/236	0.504 g	0.0307	0.0127	0.0665	.004722222	pCi/g	NO
		Uranium-238	0.504 g	0.695	0.073	0.0713	.019107143	pCi/g	NO
246847002	RE16-10-2829	Uranium-233/234	0.511 g	0.418	0.0509	0.0976	.011056751	pCi/g	NO
		Uranium-235/236	0.511 g	0.0143	0.00834	0.0622	.004657534	pCi/g	YES
		Uranium-238	0.511 g	0.453	0.0531	0.0667	.018845401	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953339	CHAMBER : 001	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246837001_UU	DETECTOR S/N : 79451	BKG FILE : B001.CNF;1127
SAMPLE QTY : 0.506 G	AVERAGE %EFFICIENCY : 32.2368	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 16:44:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W001.CNF;382
% YIELD : 48.505		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.1850E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

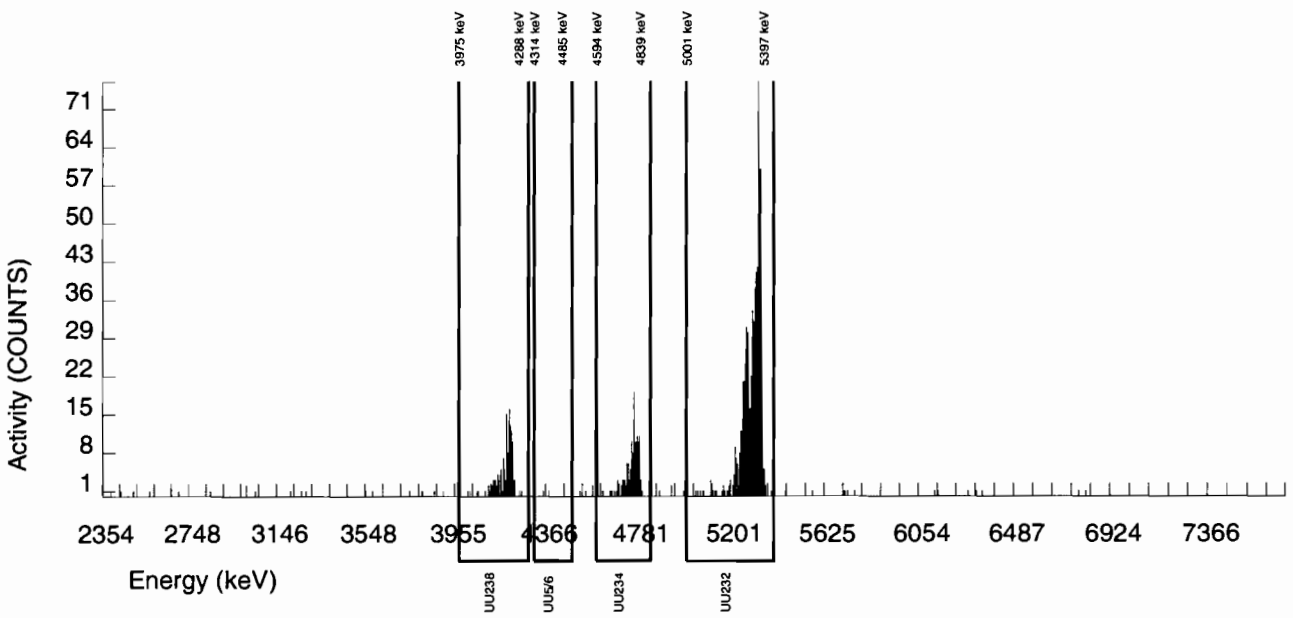
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.305	26.787	710.000	704.000	6.000	2.4495	100.0000	4.01E+00	3.34E-01	3.24E-02	8.03E-02	1.52E-01
U-3/4	4763.020	4760.364	35.620	138.000	136.287	1.000	4.8416	100.0000	7.76E-01	8.83E-02	6.41E-02	1.44E-01	6.70E-02
U-235	4391.000	4373.427	29.343	2.000	2.000	0.000	2.2152	80.90000	1.41E-02	1.00E-02	3.63E-02	9.16E-02	9.95E-03
U-238	4184.730	4187.651	30.276	140.000	138.000	2.000	3.1208	100.0000	7.86E-01	8.95E-02	4.13E-02	9.81E-02	6.78E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953339	CHAMBER : 002	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246837002_UU	DETECTOR S/N : 79452	BKG FILE : B002.CNF;1117
SAMPLE QTY : 0.519 G	AVERAGE %EFFICIENCY : 29.5805	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 16:44:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W002.CNF;328
% YIELD : 75.311		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.3926E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

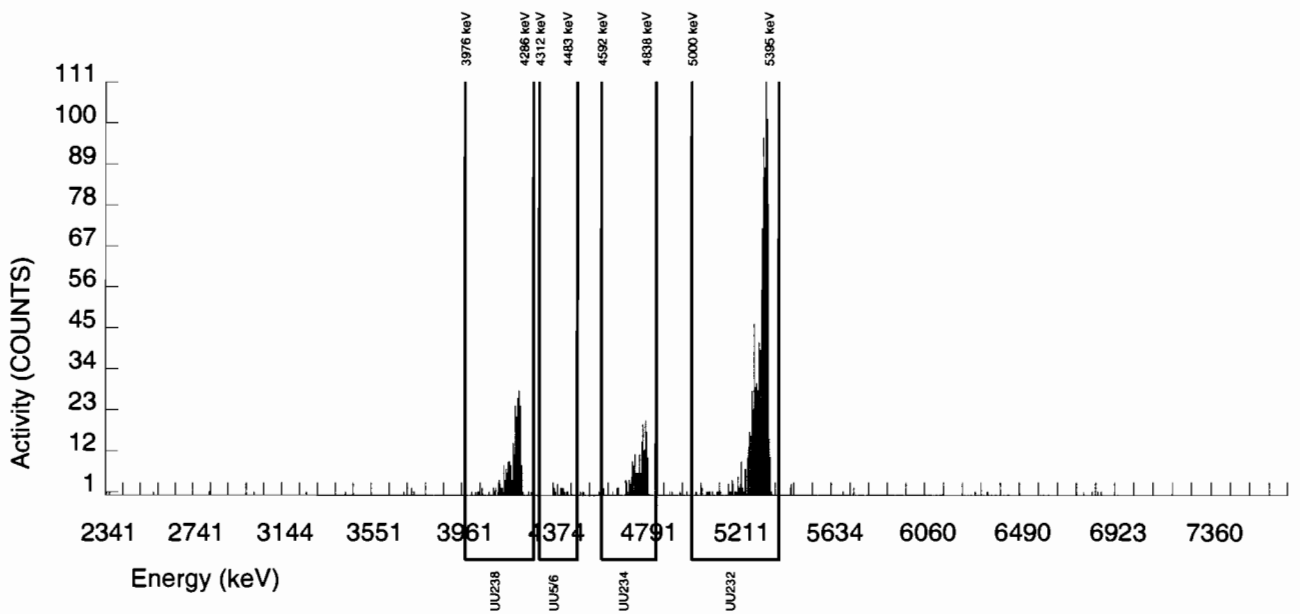
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5315.125	31.360	1010.000	1003.000	7.000	2.6458	100.0000	3.91E+00	3.05E-01	2.40E-02	5.85E-02	1.24E-01
U-3/4	4763.020	4765.947	56.085	186.000	184.985	0.000	4.8416	100.0000	7.21E-01	7.38E-02	4.39E-02	9.83E-02	5.30E-02
U-235	4391.000	4413.586	43.561	15.000	14.000	1.000	2.2152	80.90000	6.74E-02	1.99E-02	2.48E-02	6.27E-02	1.93E-02
U-238	4184.730	4198.835	29.924	256.000	256.000	0.000	3.1208	100.0000	9.97E-01	9.45E-02	2.83E-02	6.71E-02	6.23E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953339	CHAMBER : 003	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246837003_UU	DETECTOR S/N : 79453	BKG FILE : B003.CNF;1112
SAMPLE QTY : 0.506 G	AVERAGE %EFFICIENCY : 31.0941	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 16:44:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W003.CNF;341
% YIELD : 81.217		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6587E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

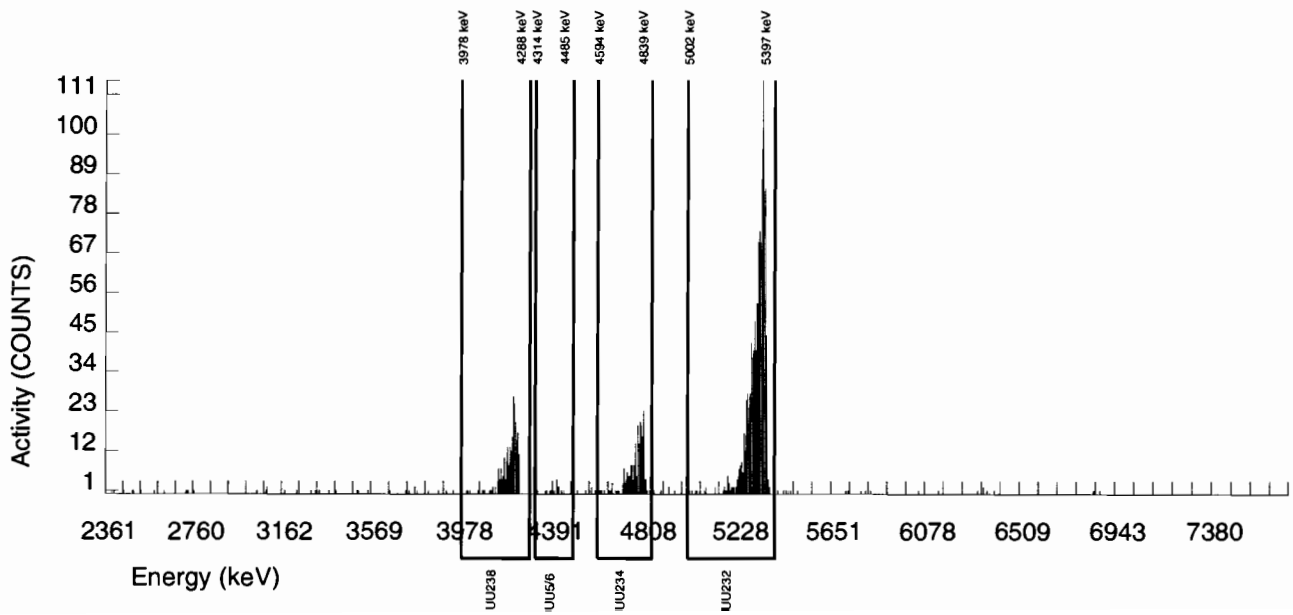
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5322.151	36.773	1139.000	1137.000	2.000	1.4142	100.0000	4.01E+00	3.06E-01	1.16E-02	3.27E-02	1.19E-01
U-3/4	4763.020	4771.043	40.749	222.000	220.849	0.000	4.8416	100.0000	7.79E-01	7.58E-02	3.97E-02	8.90E-02	5.24E-02
U-235	4391.000	4408.235	7.296	22.000	21.000	1.000	2.2152	80.90000	9.15E-02	2.19E-02	2.25E-02	5.67E-02	2.09E-02
U-238	4184.730	4201.701	30.033	246.000	245.000	1.000	3.1208	100.0000	8.64E-01	8.22E-02	2.56E-02	6.07E-02	5.54E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953339	CHAMBER : 152	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246837004_UU	DETECTOR S/N : 76222	BKG FILE : B152.CNF;398
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 24.3204	BKG DATE : 28-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 2-MAR-2010 13:58:01	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W152.CNF;107
% YIELD : 71.696		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.2298E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

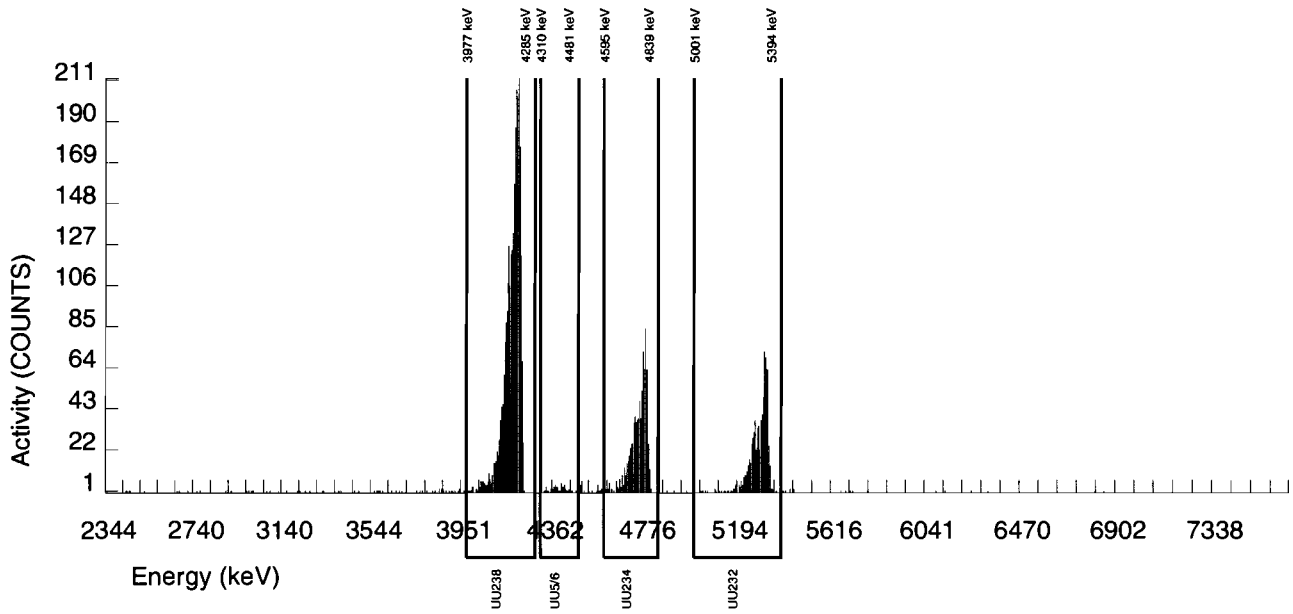
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.542	56.932	789.000	785.000	4.000	2.0000	100.0000	4.00E+00	3.26E-01	2.37E-02	6.12E-02	1.44E-01
U-3/4	4763.020	4756.595	39.201	891.000	889.205	1.000	4.8416	100.0000	4.53E+00	3.65E-01	5.74E-02	1.29E-01	1.52E-01
U-235	4391.000	4400.435	105.832	54.000	54.000	0.000	2.2152	80.90000	3.40E-01	5.26E-02	3.25E-02	8.20E-02	4.63E-02
U-238	4184.730	4186.921	58.402	2612.000	2611.000	1.000	3.1208	100.0000	1.33E+01	1.01E+00	3.70E-02	8.78E-02	2.60E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953339	CHAMBER : 005	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246837005_UU	DETECTOR S/N : 79454	BKG FILE : B005.CNF;1107
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 31.9230	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 16:44:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W005.CNF;337
% YIELD : 76.673		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.4540E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

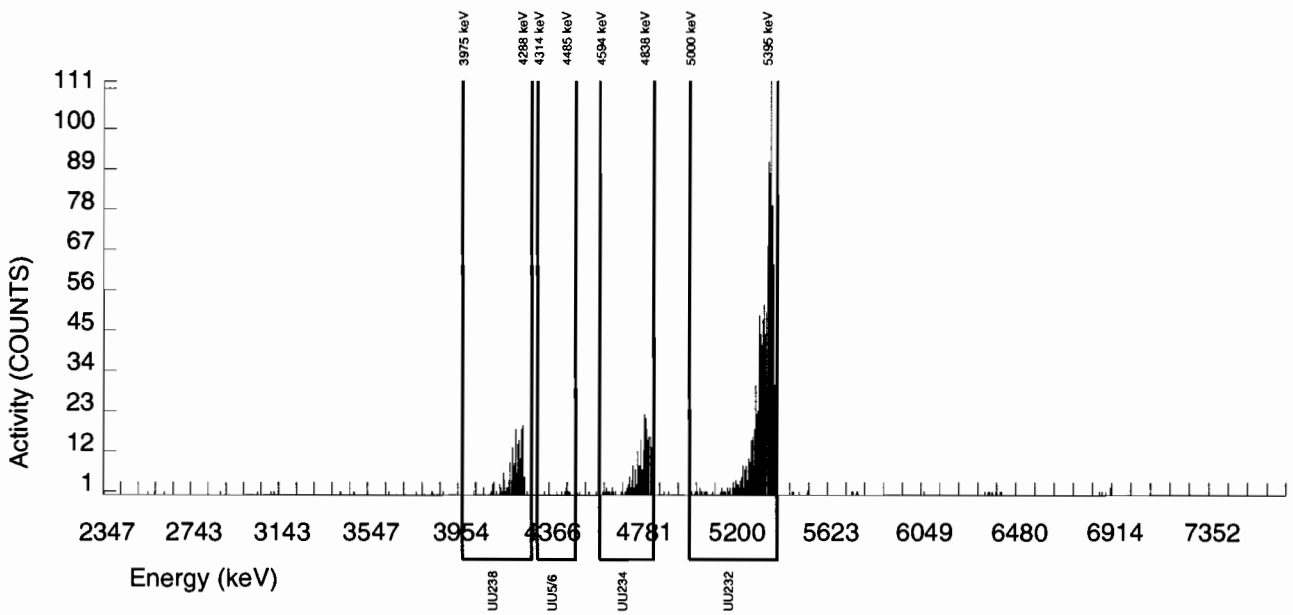
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5339.406	28.891	1107.000	1102.000	5.000	2.2361	100.0000	4.03E+00	3.09E-01	1.90E-02	4.79E-02	1.22E-01
U-3/4	4763.020	4785.780	60.381	242.000	238.884	2.000	4.8416	100.0000	8.72E-01	8.38E-02	4.11E-02	9.22E-02	5.69E-02
U-235	4391.000	4418.940	78.816	10.000	10.000	0.000	2.2152	80.90000	4.51E-02	1.46E-02	2.33E-02	5.88E-02	1.43E-02
U-238	4184.730	4218.408	53.071	197.000	197.000	0.000	3.1208	100.0000	7.19E-01	7.21E-02	2.65E-02	6.29E-02	5.13E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953339	CHAMBER : 006	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246837006_UU	DETECTOR S/N : 79455	BKG FILE : B006.CNF;1120
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 31.1643	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 16:44:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W006.CNF;361
% YIELD : 77.470		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.4899E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

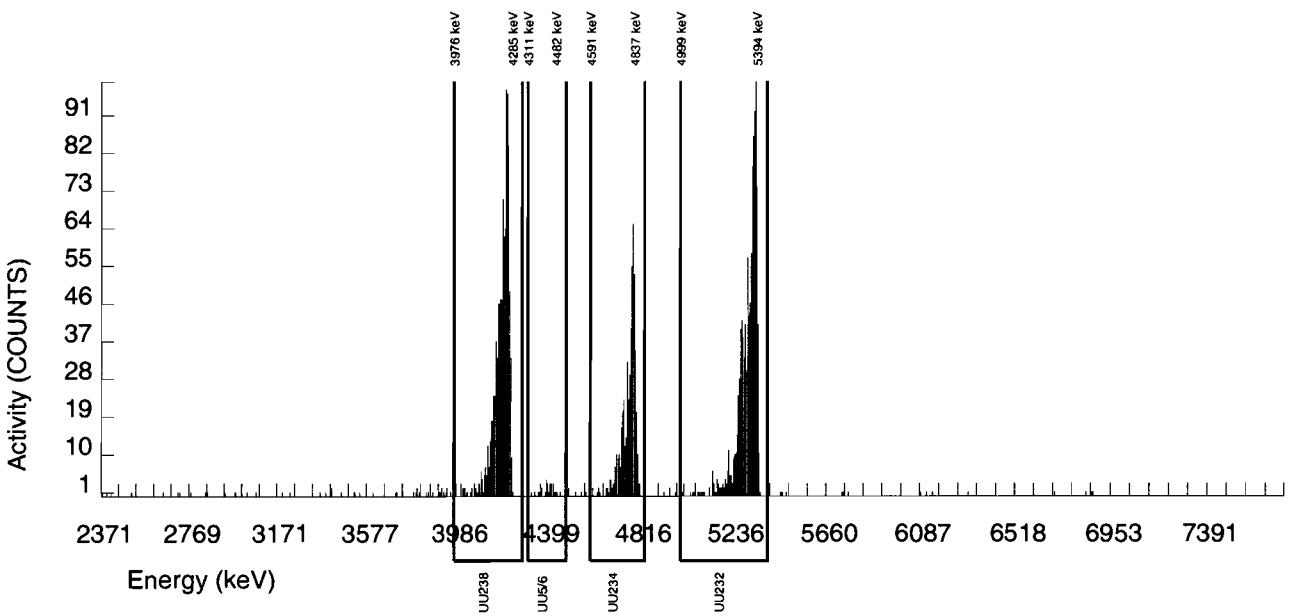
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.180	44.441	1088.000	1087.000	1.000	1.0000	100.0000	4.03E+00	3.10E-01	8.63E-03	2.73E-02	1.22E-01
U-3/4	4763.020	4767.052	24.353	530.000	525.900	3.000	4.8416	100.0000	1.95E+00	1.62E-01	4.18E-02	9.36E-02	8.55E-02
U-235	4391.000	4399.751	59.421	31.000	30.000	1.000	2.2152	80.90000	1.38E-01	2.77E-02	2.36E-02	5.97E-02	2.59E-02
U-238	4184.730	4196.169	33.820	992.000	991.000	1.000	3.1208	100.0000	3.68E+00	2.85E-01	2.69E-02	6.39E-02	1.17E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953339	CHAMBER : 157	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202043678_UU	DETECTOR S/N : 75555	BKG FILE : B157.CNF;401
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 24.5619	BKG DATE : 21-FEB-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 27-FEB-2010 20:05:37	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W157.CNF;111
% YIELD : 95.221		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5031E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2879E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

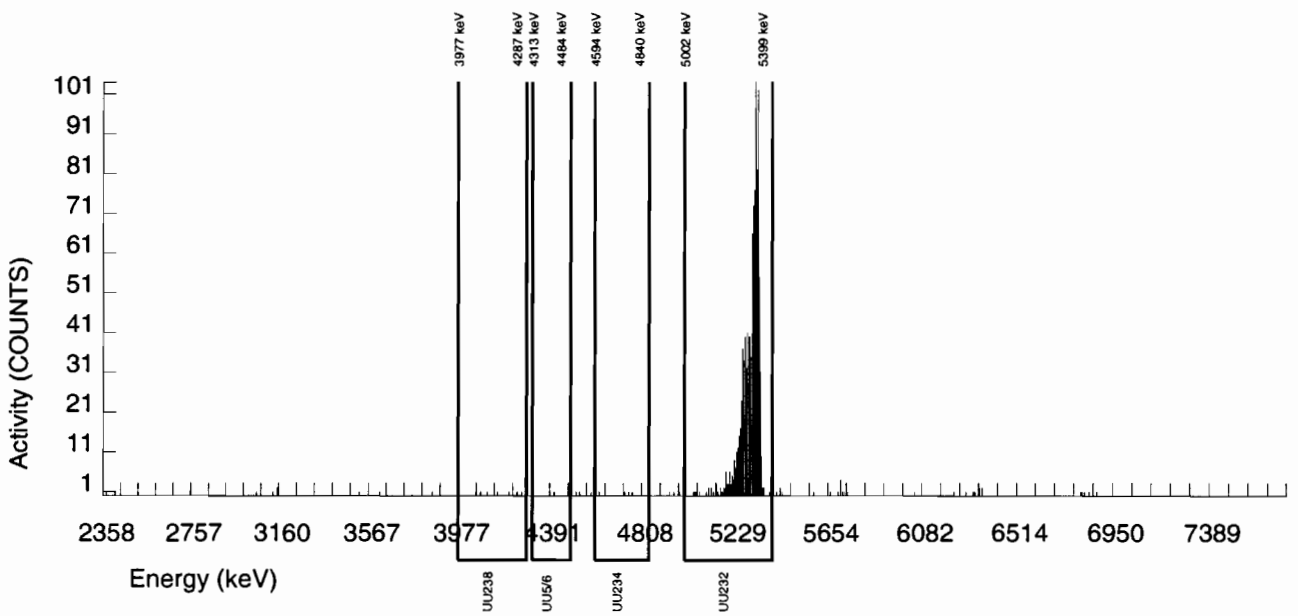
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.007	32.650	1054.000	1053.000	1.000	1.0000	100.0000	2.03E+00	1.56E-01	4.48E-03	1.42E-02	6.26E-02
U-3/4	4763.020	4720.373	148.993	4.000	2.934	0.000	4.8416	100.0000	5.65E-03	3.32E-03	2.17E-02	4.86E-02	3.30E-03
U-235	4391.000	4416.623	4.966	1.000	1.000	0.000	2.2152	80.90000	2.38E-03	2.39E-03	1.23E-02	3.10E-02	2.38E-03
U-238	4184.730	4183.291	183.757	6.000	5.000	1.000	3.1208	100.0000	9.63E-03	5.14E-03	1.40E-02	3.32E-02	5.10E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953339	CHAMBER : 158	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202043679_UU	DETECTOR S/N : 33451	BKG FILE : B158.CNF;402
SAMPLE QTY : 0.506 G	AVERAGE %EFFICIENCY : 24.5923	BKG DATE : 21-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 27-FEB-2010 20:05:41	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W158.CNF;114
% YIELD : 86.433		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.8936E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

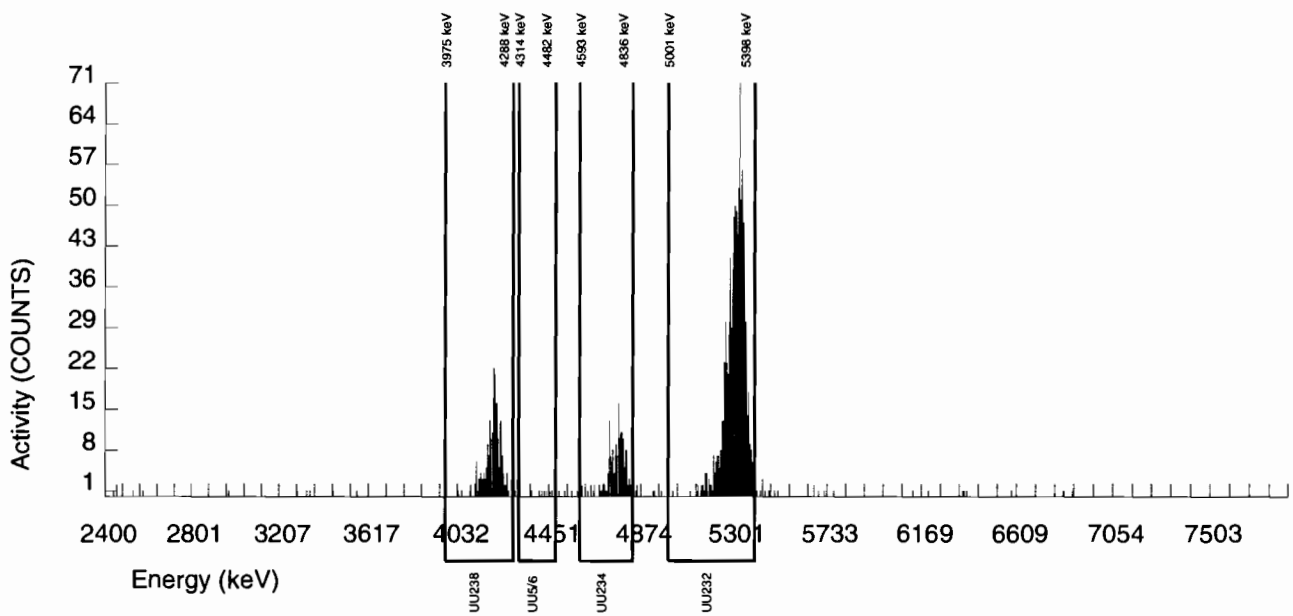
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5312.899	65.547	962.000	957.000	5.000	2.2361	100.0000	4.01E+00	3.15E-01	2.18E-02	5.49E-02	1.30E-01
U-3/4	4763.020	4766.126	64.607	170.000	169.031	0.000	4.8416	100.0000	7.08E-01	7.44E-02	4.72E-02	1.06E-01	5.45E-02
U-235	4391.000	4413.740	144.748	9.000	9.000	0.000	2.2152	80.90000	4.66E-02	1.59E-02	2.67E-02	6.74E-02	1.55E-02
U-238	4184.730	4201.050	52.374	228.000	226.000	2.000	3.1208	100.0000	9.47E-01	9.29E-02	3.04E-02	7.22E-02	6.35E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953339	CHAMBER : 159	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202043680_UU	DETECTOR S/N : 76225	BKG FILE : B159.CNF;375
SAMPLE QTY : 0.106 G	AVERAGE %EFFICIENCY : 25.3070	BKG DATE : 21-FEB-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 27-FEB-2010 20:05:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W159.CNF;106
% YIELD : 85.220		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5031E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.8375E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

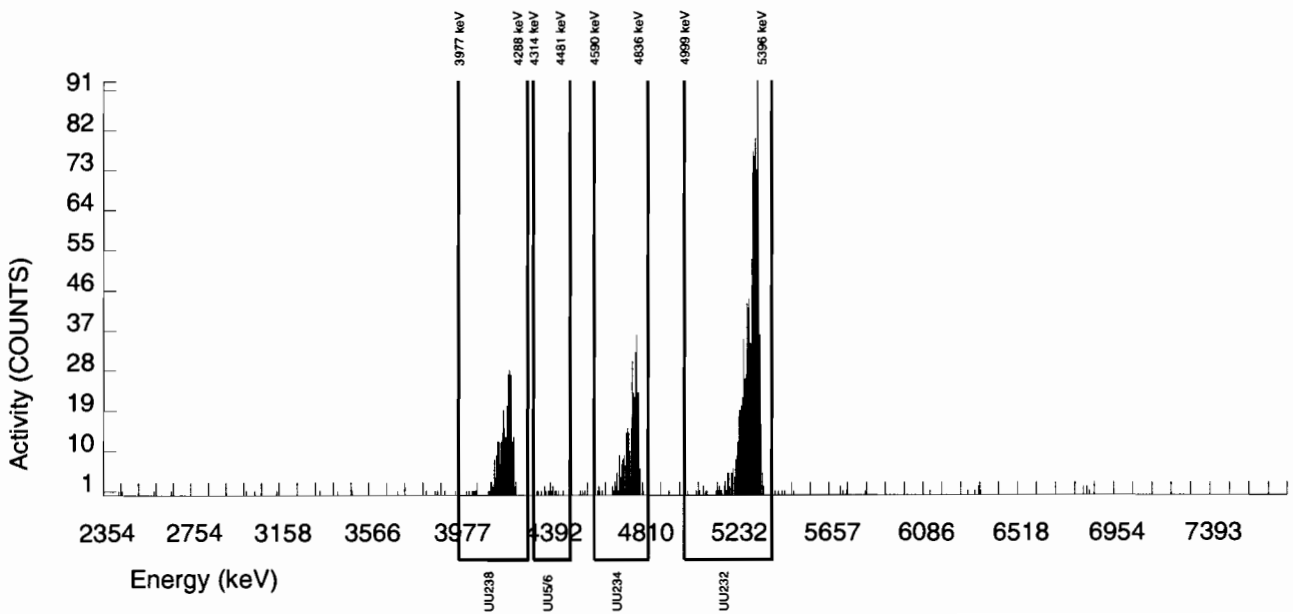
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.933	32.826	973.000	971.000	2.000	1.4142	100.0000	1.91E+01	1.60E+00	6.48E-02	1.83E-01	6.15E-01
U-3/4	4763.020	4762.684	34.703	326.000	324.017	1.000	4.8416	100.0000	6.38E+00	6.09E-01	2.22E-01	4.97E-01	3.56E-01
U-235	4391.000	4392.002	39.783	16.000	16.000	0.000	2.2152	80.90000	3.90E-01	1.02E-01	1.26E-01	3.17E-01	9.74E-02
U-238	4184.730	4190.329	44.160	300.000	300.000	0.000	3.1208	100.0000	5.91E+00	5.71E-01	1.43E-01	3.40E-01	3.41E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Radiochemistry Batch Checklist, Rev10

Batch# 952641 **Product:** YS **Date:** 2/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	V		
Instrument source check is within limits. Instrument bkg check is within limits.	V		
Method RDL/ LLD has been met.	V		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	V		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	V		
Sample was run within hold time.	V		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	V		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	V		
Aux data is correct.			NA
Client Special requirements page has been checked.	V		
Raw Data and/ or spectrum are included and properly statused.	V		
QC data entered into QC database and batch is in REVW	V		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	V		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	V		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 2/25/10

Secondary Review Performed By: [illegible] 2/26/10

LANL
3/4/10

Gamma Spec Que Sheet

1.G.-2/22/10

02/12/2010

Batch #:952641 **Analyst:** MXR1 **First Client DueDate**03/04/2010 **Internal Due Date:** 02/22/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** n/a **Expiration Date:** n/a **Vol:** n/a **Nominal Concentration:** n/a Co60 6.381

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0mL **Nominal Concentration:** Cs-137 5.557 Am-241 15.90

Initials: MS **Prep Date:** 2/15/10 **Library:** SOLID **Witness:** n/a

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (I/G/F)	Detector	Sealing Date/Time (if Applicable)
246837001-1	RE15-10-7992	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF	can	144.80	11	2/15/10
246837002-1	RE15-10-7991	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		126.40	15	
246837003-1	RE15-10-7990	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		145.53	17	
246837004-1	RE15-10-7987	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		122.41	22	
246837005-1	RE15-10-7988	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		137.48	25	
246837006-1	RE15-10-7989	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		120.24	2	
246841001-1	RE16-10-1214	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		108.34	14	
246841002-1	RE16-10-1215	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		115.58	23	
246841003-1	RE16-10-1236	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		118.58	16	
246843002-1	RE16-10-2771	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		119.44	10	
246843003-1	RE16-10-22774	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		113.04	18	
246843004-1	RE16-10-2770	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	RF		121.13	21	
246846001-1	RE16-10-2915	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	MS		126.08	15	
246846002-1	RE16-10-2914	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	MS		137.59	22	
246847001-1	RE16-10-2828	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	MS		109.86	25	
246847002-1	RE16-10-2829	SAMPLE		LANL010	SOIL	08-FEB-10 12:00:00	MS		125.02	12	
1202041817-1	MB	MB		QC ACCOUNT	SOIL	2/15/10	MS		145.53	14	
1202041818-1	DUP RE16-10-2828(246847001)	DUP		QC ACCOUNT	SOIL	08-FEB-10 12:00:00	MS		109.86	15	
1202041819-1	LCS	LCS		QC ACCOUNT	SOIL	2/15/10	MS		155.44	23	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [signature] 2/25/10

dailies ✓ ✓no history

KW 2/26/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
952641	246837001	SAMPLE	23-FEB-10					
952641	246837002	SAMPLE	23-FEB-10		Americium-241	-0.02913	0.5228	0.200
					Cerium-139	0.01578	0.06831	0.050
					Cesium-134	0.09621	0.1065	0.100
					Europium-152	0.01547	0.2148	0.200
					Sodium-22	-0.02863	0.09597	0.080
					Thorium-234	2.748	4.036	2.00
952641	246837003	SAMPLE	23-FEB-10		Sodium-22	-0.00253	0.09874	0.080
952641	246837004	SAMPLE	23-FEB-10		Americium-241	0.1087	0.2491	0.200
952641	246837005	SAMPLE	23-FEB-10					
952641	246837006	SAMPLE	23-FEB-10		Americium-241	-0.07191	0.3153	0.200
					Cerium-139	-0.01343	0.05524	0.050
					Cesium-134	0.08405	0.1019	0.100
					Sodium-22	-0.03531	0.08411	0.080
952641	246841001	SAMPLE	23-FEB-10		Americium-241	-0.2376	0.2261	0.200
					Cerium-139	0.00281	0.05109	0.050
					Sodium-22	-0.01684	0.08123	0.080
					Thorium-234	1.805	2.137	2.00
952641	246841002	SAMPLE	23-FEB-10		Americium-241	-0.338	0.3359	0.200
					Cerium-139	0.0066	0.05299	0.050
					Cesium-134	0.08871	0.1103	0.100
					Sodium-22	-0.02512	0.0863	0.080
					Thorium-234	1.242	2.959	2.00
952641	246841003	SAMPLE	23-FEB-10		Americium-241	0.09195	0.2277	0.200
					Sodium-22	0.02533	0.08154	0.080
952641	246843002	SAMPLE	23-FEB-10		Americium-241	-0.03856	0.3747	0.200
					Sodium-22	0.00048	0.08579	0.080
					Thorium-234	1.276	2.982	2.00
952641	246843003	SAMPLE	23-FEB-10		Americium-241	0.05534	0.2928	0.200
					Thorium-234	-0.0233	2.451	2.00
952641	246843004	SAMPLE	23-FEB-10		Cesium-134	0.08689	0.1146	0.100
					Sodium-22	-0.00773	0.08295	0.080
952641	246846001	SAMPLE	23-FEB-10		Americium-241	-0.1899	0.4936	0.200
					Cerium-139	-0.03172	0.06007	0.050
					Cesium-134	0.09551	0.1047	0.100
					Europium-152	0.00613	0.202	0.200
					Sodium-22	-0.04462	0.0911	0.080
					Thorium-234	0.4581	3.957	2.00
952641	246846002	SAMPLE	23-FEB-10		Americium-241	0.06473	0.2002	0.200
952641	246847001	SAMPLE	23-FEB-10					
952641	246847002	SAMPLE	23-FEB-10		Americium-241	-0.07741	0.2406	0.200
					Sodium-22	0.02083	0.08732	0.080
					Thorium-234	1.045	2.382	2.00
952641	1202041817	MB	23-FEB-10					

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
952641	1202041818	DUP	23-FEB-10		Americium-241	-0.3751	0.5214	0.200
					Cerium-139	0.01559	0.06685	0.050
					Cesium-134	0.06341	0.1115	0.100
					Europium-152	-0.1683	0.2024	0.200
					Sodium-22	-0.04046	0.09475	0.080
					Thorium-234	0.943	4.199	2.00
					Tin-113	0.03093	0.1025	0.100
					Uranium-235	0.2876	0.5124	0.500
952641	1202041819	LCS	23-FEB-10		Cerium-139	0.02467	0.08681	0.050
					Cesium-134	0.112	0.177	0.100
					Europium-152	-0.06652	0.332	0.200
					Mercury-203	-0.0599	0.1143	0.100
					Ruthenium-106	0.144	1.126	0.800
					Thorium-234	-1.388	4.224	2.00
					Tin-113	-0.05247	0.1592	0.100
					Uranium-235	0.1138	0.5948	0.500

GEL QUALS

Batch ID: 952641

Report run on: February 25, 2010 11:51 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246837001-1 23-FEB-2010 12:05	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.573			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.01			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1523		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.857			
246837002-1 23-FEB-2010 12:05	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.114			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.992			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.07			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1268			
246837003-1 23-FEB-2010 12:06	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.34			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.346			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1978		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.07366		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.166			
246837004-1 23-FEB-2010 12:06	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.959			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.176			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.484			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1478			
246837005-1 23-FEB-2010 12:07	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.688			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.896			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1218		.1	.1

GEL QUALS

Batch ID: 952641

Report run on: February 25, 2010 11:51 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246837005-1 23-FEB-2010 12:07	Radium-224	UI	UI	UI	Data rejected due to interference.		4.064			
246837006-1 23-FEB-2010 12:13	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.538			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.525			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.228			
246841001-1 23-FEB-2010 12:54	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.367			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.357			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.102		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.433			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1205			
246841002-1 23-FEB-2010 12:54	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.632			
	Cadmium-109	UI	UI	UI	Data rejected due to low abundance.		2.117			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.372			
246841003-1 23-FEB-2010 13:11	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.949			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.317			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1009		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.19			
246843002-1 23-FEB-2010 13:33	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.504			
	Cadmium-109	UI	UI	UI	Data rejected due to high peak-width.		3.069			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.362			

GEL QUALS

Batch ID: 952641

Report run on: February 25, 2010 11:51 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246843003-1 23-FEB-2010 13:33	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.699			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.422			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.121		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.178			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.0672			
246843004-1 23-FEB-2010 13:34	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.593			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.532			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.357			
246846001-1 23-FEB-2010 14:22	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.89			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.208			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.413			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1162			
246846002-1 23-FEB-2010 14:22	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.032			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.152			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.08203		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.972			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1031			
246847001-1 23-FEB-2010 14:22	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.167			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.343			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1411		.1	.1

GEL QUALS

Batch ID: 952641

Report run on: February 25, 2010 11:51 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246847001-1 23-FEB-2010 14:22	Radium-224	UI	UI	UI	Data rejected due to interference.		4.71			
246847002-1 23-FEB-2010 15:22	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.504			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.656			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.243			
1202041818-1 DUP 23-FEB-2010 16:54	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.429			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.256			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.776			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.146			

Gamma Review Report based on Result > MDA for Batch:952641

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246837001	08-FEB-10 12:00	23-FEB-10 12:05	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	NL	1.935	0.1755	pCi/g	0.1844	N	911.6	3	1.667	IDENTIFIED	6.721	☐	
Americium-243	NL	0.361	0.02955	pCi/g	0.06708	N	74.78	1	0.9064	IDENTIFIED	7.112	☐	
Annihilation Rad.		0.1349	0.0354	pCi/g	0.0422	N	510.7	1	1.982	IDENTIFIED	25.7	☐	
Bismuth-211	INT	3.573	0.3031	pCi/g	0.2812	Y	351.9	4	1.116	IDENTIFIED	5.356	☑ UI	
Bismuth-212	✓	1.392	0.2608	pCi/g	0.3802	N	728.1	1	1.868	IDENTIFIED	17.92	☐	
Bismuth-214	✓	1.113	0.09111	pCi/g	0.09987	0.200	609.4	4	1.352	IDENTIFIED	5.92	☐	
Cadmium-109	INT	3.01	0.393	pCi/g	1.08	Y	87.15	3	0.8539	IDENTIFIED	12.19	☑ UI	
Cerium-143		355.2	74.24	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1523	0.03025	pCi/g	0.08375	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Europium-155	HE	0.1592	0.04139	pCi/g	0.1587	N	0	9	0	FAIL_ABUND	0	☐	
Gross Gamma		10.32	1.304	pCi/g	3.166	N		0				☐	
Iodine-133	HE	3191	2477	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.77	0.1342	pCi/g	0.07907	0.100	238.7	4	1.005	IDENTIFIED	2.909	☐	
Lead-214	✓	1.243	0.1103	pCi/g	0.09802	0.100	351.9	4	1.116	IDENTIFIED	5.356	☐	
Lutetium-177	HE	2.862	0.6337	pCi/g	1.711	N	0	9	0	FAIL_ABUND	0	☐	
Neptunium-237	NL	0.8688	0.1446	pCi/g	0.3153	N	87.15	3	0.8539	IDENTIFIED	12.19	☐	
Niobium-97	HE	12100	39720	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Polonium-212	NL	1.77	0.1342	pCi/g	0.07907	N	238.7	4	1.005	IDENTIFIED	2.909	☐	
Polonium-214	NL	1.243	0.1103	pCi/g	0.09802	N	351.9	4	1.116	IDENTIFIED	5.356	☐	
Polonium-216	NL	1.77	0.1342	pCi/g	0.07907	N	238.7	4	1.005	IDENTIFIED	2.909	☐	
Polonium-218	NL	1.243	0.1103	pCi/g	0.09802	N	351.9	4	1.116	IDENTIFIED	5.356	☐	
Potassium-40	✓	35.91	1.783	pCi/g	0.4119	1.00	1461	1	1.834	IDENTIFIED	2.441	☐	
Radium-224	INT	4.857	0.697	pCi/g	0.8999	Y	241.6	1	1.782	IDENTIFIED	12.68	☑ UI	
Radium-226	✓	1.113	0.09111	pCi/g	0.09987	Y	609.4	4	1.352	IDENTIFIED	5.92	☐	
Radium-228	✓	1.935	0.1755	pCi/g	0.1844	0.500	911.6	3	1.667	IDENTIFIED	6.721	☐	
Technetium-99m		4.97E+15	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5406	0.04888	pCi/g	0.05003	0.080	583.3	1	1.374	IDENTIFIED	7.252	☐	
Thorium-228	NL	1.797	0.1362	pCi/g	0.08026	N	238.7	4	1.005	IDENTIFIED	2.909	☐	
Thorium-230	NL	1.113	0.09111	pCi/g	0.09987	N	609.4	4	1.352	IDENTIFIED	5.92	☐	
Thorium-232	NL	1.935	0.1755	pCi/g	0.1844	N	911.6	3	1.667	IDENTIFIED	6.721	☐	
Tin-126	NL	0.2959	0.03863	pCi/g	0.1065	N	87.15	3	0.8539	IDENTIFIED	12.19	☐	
Titanium-44	LA	0.3679	0.02409	pCi/g	0.05633	N	0	9	0	FAIL_ABUND	0	☐	
Uranium-234	NL	1.113	0.09111	pCi/g	0.09987	N	609.4	4	1.352	IDENTIFIED	5.92	☐	
Zirconium-97	HE	1.21E+06	7.32E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246837002	08-FEB-10 12:00	23-FEB-10 12:05	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	NL	1.822	0.1823	pCi/g	0.269	N	910.9	3	1.434	IDENTIFIED	8.088	☐	
Americium-243	NL	0.3109	0.05774	pCi/g	0.1355	N	75.16	1	1.376	IDENTIFIED	17.66	☐	
Annihilation Rad.	HE	0.1255	0.04183	pCi/g	0.05781	N	511.1	1	2.474	IDENTIFIED	33.04	☐	

Bismuth-211	INT	4.114	0.3574	pCi/g	0.4163	Y	351.9	4	1.402	IDENTIFIED	7.126	☑ UI		
Bismuth-212	HE	1.238	0.3327	pCi/g	0.8153	N	0	11	0	FAIL_ABUND	0	☐		
Bismuth-214	V	1.087	0.1189	pCi/g	0.1486	0.200	609.3	4	1.617	IDENTIFIED	9.751	☐		
Cadmium-109	INT	3.992	0.8962	pCi/g	1.782	Y	88.42	2	2.947	IDENTIFIED	21.59	☑ UI		
Cerium-143	—	865.1	145.4	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Gross Gamma	—	9.629	1.437	pCi/g	2.703	N		0				☐		
Iodine-135	HE	2.64E+15	2.89E+15	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Krypton-85	HE	24.77	5.224	pCi/g	17.66	N	0	11	0	NOT_IDENTI	0	☐		
Lead-212	V	1.782	0.1255	pCi/g	0.1197	0.100	238.7	4	1.249	IDENTIFIED	3.765	☐		
Lead-214	V	1.431	0.1298	pCi/g	0.1451	0.100	351.9	4	1.402	IDENTIFIED	7.126	☐		
Lutetium-177	HE	3.028	0.8129	pCi/g	2.621	N	0	11	0	FAIL_ABUND	0	☐		
Neptunium-237	NU	1.214	0.2755	pCi/g	0.6143	N	0	11	0	NOT_IDENTI	0	☐		
Niobium-95m	HE	0.3168	0.09733	pCi/g	0.3113	N	0	11	0	NOT_IDENTI	0	☐		
Polonium-212	NU	1.782	0.1255	pCi/g	0.1197	N	238.7	4	1.249	IDENTIFIED	3.765	☐		
Polonium-214	NU	1.431	0.1298	pCi/g	0.1451	N	351.9	4	1.402	IDENTIFIED	7.126	☐		
Polonium-216	NU	1.782	0.1255	pCi/g	0.1197	N	238.7	4	1.249	IDENTIFIED	3.765	☐		
Polonium-218	NU	1.431	0.1298	pCi/g	0.1451	N	351.9	4	1.402	IDENTIFIED	7.126	☐		
Potassium-40	V	37.77	2.184	pCi/g	0.6655	1.00	1460	1	2.006	IDENTIFIED	3.052	☐		
Radium-224	INT	5.07	0.7864	pCi/g	1.362	Y	241.5	1	1.974	IDENTIFIED	14.5	☑ UI		
Radium-226	V	1.087	0.1189	pCi/g	0.1486	Y	609.3	4	1.617	IDENTIFIED	9.751	☐		
Radium-228	V	1.822	0.1823	pCi/g	0.269	0.500	910.9	3	1.434	IDENTIFIED	8.088	☐		
Strontium-85	LA	0.1268	0.02675	pCi/g	0.09046	Y	0	11	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Thallium-200	HE	41.71	288	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Thallium-208	V	0.51	0.05451	pCi/g	0.07035	0.080	583.1	1	1.602	IDENTIFIED	9.657	☐		
Thorium-228	NU	1.808	0.1274	pCi/g	0.1215	N	238.7	4	1.249	IDENTIFIED	3.765	☐		
Thorium-230	NU	1.087	0.1189	pCi/g	0.1486	N	609.3	4	1.617	IDENTIFIED	9.751	☐		
Thorium-232	NU	1.822	0.1823	pCi/g	0.269	N	910.9	3	1.434	IDENTIFIED	8.088	☐		
Tin-126	~~INT~~ NU	0.3924	0.0881	pCi/g	0.1583	N	88.42	2	2.947	IDENTIFIED	21.59	☐		
Titanium-44	use 2/24/10	0.3333	0.03937	pCi/g	0.1167	N	0	11	0	FAIL_ABUND	0	☐		
Total Uranium	—	7.9981	3.92E-06	ug/g	6.0086	N		0				☐		
Uranium-234	NU	1.087	0.1189	pCi/g	0.1486	N	609.3	4	1.617	IDENTIFIED	9.751	☐		
Zirconium-97	—	4.89E+06	1.24E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246837003	08-FEB-10 12:00	23-FEB-10 12:06	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NU	1.481	0.1851	pCi/g	0.2334	N	910.5	3	1.387	IDENTIFIED	11.14	☐	
Americium-243	NU	0.3051	0.02843	pCi/g	0.05979	N	74.92	1	0.9484	IDENTIFIED	7.939	☐	
Annihilation Rad.	—	0.1621	0.0397	pCi/g	0.05032	N	510.6	1	2.09	IDENTIFIED	24.08	☐	
Bismuth-211	INT	3.34	0.2889	pCi/g	0.3376	Y	351.8	4	1.156	IDENTIFIED	7.285	☑ UI	
Bismuth-212	HE	0.9353	0.2364	pCi/g	0.741	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	V	1.057	0.0992	pCi/g	0.1286	0.200	609	4	1.231	IDENTIFIED	7.885	☐	
Cadmium-109	INT	2.346	0.4451	pCi/g	1.071	Y	87.19	3	0.9678	IDENTIFIED	18.33	☑ UI	
Cerium-143	—	499.6	95.55	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1978	0.05085	pCi/g	0.1227	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	9.124	1.365	pCi/g	3.179	N		0				☐	

Iodine-123	HE	4.10E+06	2.39E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐
Iodine-135	—	6.08E+15	2.63E+15	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐
Lead-212	✓	1.58	0.09742	pCi/g	0.09358	0.100	238.6	4	1.035	IDENTIFIED	3.55		☐
Lead-214	✓	1.162	0.105	pCi/g	0.1177	0.100	351.8	4	1.156	IDENTIFIED	7.285		☐
Mercury-203	INT	0.07366	0.03	pCi/g	0.05944	0.100	277.9	1	2.352	IDENTIFIED	40.45		☑ UI
Neptunium-237	NL	0.6773	0.1463	pCi/g	0.2748	N	87.19	3	0.9678	IDENTIFIED	18.33		☐
Polonium-212	NL	1.58	0.09742	pCi/g	0.09358	N	238.6	4	1.035	IDENTIFIED	3.55		☐
Polonium-214	NL	1.162	0.105	pCi/g	0.1177	N	351.8	4	1.156	IDENTIFIED	7.285		☐
Polonium-216	NL	1.58	0.09742	pCi/g	0.09358	N	238.6	4	1.035	IDENTIFIED	3.55		☐
Polonium-218	NL	1.162	0.105	pCi/g	0.1177	N	351.8	4	1.156	IDENTIFIED	7.285		☐
Potassium-40	✓	33	1.814	pCi/g	0.4158	1.00	1460	1	1.916	IDENTIFIED	3.245		☐
Radium-224	INT	4.166	0.6183	pCi/g	1.066	Y	241.5	1	1.64	IDENTIFIED	14.13		☑ UI
Radium-226	✓	1.057	0.0992	pCi/g	0.1286	Y	609	4	1.231	IDENTIFIED	7.885		☐
Radium-228	✓	1.481	0.1851	pCi/g	0.2334	0.500	910.5	3	1.387	IDENTIFIED	11.14		☐
Technetium-99m	—	1.03E+16	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐
Thallium-200	HE	43.46	214.9	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐
Thallium-208	✓	0.5372	0.05272	pCi/g	0.06943	0.080	583	1	1.435	IDENTIFIED	8.599		☐
Thorium-228	NL	1.604	0.09889	pCi/g	0.09498	N	238.6	4	1.035	IDENTIFIED	3.55		☐
Thorium-230	NL	1.057	0.0992	pCi/g	0.1285	N	609	4	1.231	IDENTIFIED	7.885		☐
Thorium-232	NL	1.481	0.1851	pCi/g	0.2334	N	910.5	3	1.387	IDENTIFIED	11.14		☐
Thorium-234	✓	1.334	0.414	pCi/g	1.011	2.00	63.51	2	1.012	IDENTIFIED	29.6		☐
Tin-126	NL	0.2307	0.04376	pCi/g	0.1051	N	87.19	3	0.9678	IDENTIFIED	18.33		☐
Titanium-44	LA	0.344	0.02367	pCi/g	0.06055	N	0	9	0	FAIL_ABUND	0		☐
Total Uranium		3.9238	1.23E-06	ug/g	1.5063	N		0					☐
Uranium-234	NL	1.057	0.0992	pCi/g	0.1285	N	609	4	1.231	IDENTIFIED	7.885		☐
Uranium-238	HE	1.334	0.414	pCi/g	1.011	N	63.51	2	1.012	IDENTIFIED	29.6		☐
Zirconium-97	—	3.91E+06	9.74E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246837004	08-FEB-10 12:00	23-FEB-10 12:06	15	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	NL	1.459	0.1808	pCi/g	0.1954	N	911.6	3	2.015	IDENTIFIED	10.48	☐	
Americium-243	NL	0.291	0.03413	pCi/g	0.08455	N	74.85	1	1.051	IDENTIFIED	11	☐	
Annihilation Rad.	—	0.1262	0.03485	pCi/g	0.04146	N	510.7	1	2.377	IDENTIFIED	27.16	☐	
Barium-137m	NL	0.4988	0.04095	pCi/g	0.05613	N	661.7	2	1.679	IDENTIFIED	6.294	☐	
Bismuth-211	INT	3.959	0.3185	pCi/g	0.3124	Y	352	4	1.512	IDENTIFIED	5.561	☑ UI	
Bismuth-212	✓	1.439	0.2055	pCi/g	0.576	N	0	14	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.185	0.09845	pCi/g	0.1035	0.200	609.5	4	1.837	IDENTIFIED	5.938	☐	
Cadmium-109	INT	2.176	0.5266	pCi/g	1.678	Y	87.08	3	0.9923	IDENTIFIED	23.73	☑ UI	
Cerium-143	—	864.1	132.6	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3561	0.09057	pCi/g	0.2777	N	0	14	0	NOT_IDENTI	0	☐	
Cesium-137	✓	0.5272	0.04331	pCi/g	0.05933	0.100	661.7	2	1.679	IDENTIFIED	6.294	☐	
Europium-155	HE	0.2368	0.05344	pCi/g	0.1877	N	0	14	0	FAIL_ABUND	0	☐	
Gross Gamma	—	9.736	1.18	pCi/g	2.696	N		0				☐	
Krypton-85	LA	28.86	4.45	pCi/g	14.38	N	0	14	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.701	0.1246	pCi/g	0.09009	0.100	238.7	4	1.287	IDENTIFIED	3.152	☐	

Lead-214	V	1.377	0.1165	pCi/g	0.1112	0.100	352	4	1.512	IDENTIFIED	5.561	☐	
Lutetium-177	HE	2.059	0.5901	pCi/g	1.918	N	0	14	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.6283	0.1653	pCi/g	0.409	N	87.08	3	0.9923	IDENTIFIED	23.73	☐	
Niobium-95	HE	0.1043	0.02174	pCi/g	0.07747	N	0	14	0	NOT_IDENTI	0	☐	
Niobium-97	—	2.19E+05	50250	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Polonium-212	MU	1.701	0.1246	pCi/g	0.09009	N	238.7	4	1.287	IDENTIFIED	3.152	☐	
Polonium-214	MU	1.377	0.1165	pCi/g	0.1112	N	352	4	1.512	IDENTIFIED	5.561	☐	
Polonium-216	MU	1.701	0.1246	pCi/g	0.09009	N	238.7	4	1.287	IDENTIFIED	3.152	☐	
Polonium-218	MU	1.377	0.1165	pCi/g	0.1112	N	352	4	1.512	IDENTIFIED	5.561	☐	
Potassium-40	V	26.68	1.396	pCi/g	0.4483	1.00	1461	1	2.364	IDENTIFIED	2.531	☐	
Protactinium-234m	HE	12.31	3.843	pCi/g	8.899	N	0	14	0	FAIL_ABUND	0	☐	
Radium-224	INT	4.484	0.6435	pCi/g	1.024	Y	241.8	1	1.714	IDENTIFIED	12.91	☑ UI	
Radium-226	V	1.185	0.09845	pCi/g	0.1035	Y	609.5	4	1.837	IDENTIFIED	5.938	☐	
Radium-228	V	1.459	0.1808	pCi/g	0.1954	0.500	911.6	3	2.015	IDENTIFIED	10.48	☐	
Rhenium-188	HE	0.3727	0.1108	pCi/g	0.2768	N	153.8	1	1.205	IDENTIFIED	29.37	☐	
Silver-110m	HE	0.07802	0.0198	pCi/g	0.06364	N	0	14	0	NOT_IDENTI	0	☐	
Strontium-85	LA	0.1478	0.02279	pCi/g	0.07365	Y	0	14	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-200	HE	45.93	199	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Thallium-208	V	0.5372	0.04664	pCi/g	0.05291	0.080	583.2	1	1.772	IDENTIFIED	6.781	☐	
Thorium-228	MU	1.727	0.1264	pCi/g	0.09145	N	238.7	4	1.287	IDENTIFIED	3.152	☐	
Thorium-230	MU	1.185	0.09845	pCi/g	0.1035	N	609.5	4	1.837	IDENTIFIED	5.938	☐	
Thorium-232	MU	1.459	0.1808	pCi/g	0.1954	N	911.6	3	2.015	IDENTIFIED	10.48	☐	
Thorium-234	V	7.596	1.118	pCi/g	2.075	2.00	63.28	2	0.9427	IDENTIFIED	11.88	☐	
Tin-126	HE	0.214	0.05176	pCi/g	0.1491	N	87.08	3	0.9923	IDENTIFIED	23.73	☐	
Titanium-44	LA	0.3499	0.02711	pCi/g	0.07357	N	0	14	0	FAIL_ABUND	0	☐	
Total Uranium	—	22.617	3.33E-06	ug/g	3.0902	N		0				☐	
Uranium-234	MU	1.185	0.09845	pCi/g	0.1035	N	609.5	4	1.837	IDENTIFIED	5.938	☐	
Uranium-238	MU	7.596	1.118	pCi/g	2.075	N	63.28	2	0.9427	IDENTIFIED	11.88	☐	
Zirconium-97	—	6.76E+06	9.02E+05	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246837005	08-FEB-10 12:00	23-FEB-10 12:07	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	MU	1.405	0.1637	pCi/g	0.2167	N	911.2	3	1.65	IDENTIFIED	10.02	☐	
Americium-243	MU	0.3484	0.02556	pCi/g	0.04394	N	74.84	1	0.8768	IDENTIFIED	5.292	☐	
Annihilation Rad.	HE	0.09536	0.03514	pCi/g	0.04552	N	510.6	1	1.893	IDENTIFIED	36.49	☐	
Bismuth-210	HE	0.964	0.3096	pCi/g	0.6248	N	46.51	3	1.047	IDENTIFIED	31.7	☐	
Bismuth-211	INT	3.688	0.2838	pCi/g	0.2915	Y	351.9	4	1.261	IDENTIFIED	5.618	☑ UI	
Bismuth-212	HE	0.8321	0.2444	pCi/g	0.7091	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	V	1.213	0.1072	pCi/g	0.1075	0.200	609.2	4	1.473	IDENTIFIED	6.448	☐	
Cadmium-109	INT	3.896	0.3679	pCi/g	0.6822	Y	87.21	3	0.987	IDENTIFIED	7.778	☑ UI	
Cerium-143	—	344.4	76.64	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1218	0.0274	pCi/g	0.1024	0.100	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Europium-155	HE	0.1362	0.04767	pCi/g	0.1235	N	105.8	1	1.635	IDENTIFIED	34.5	☐	
Gross Gamma	—	9.733	1.212	pCi/g	2.89	N		0				☐	
Iodine-123	HE	2.10E+06	1.98E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

Lead-210	HE	0.964	0.3096	pCi/g	0.6248	N	46.51	3	1.047	IDENTIFIED	31.7	☐
Lead-212	✓	1.631	0.1056	pCi/g	0.07908	0.100	238.6	4	0.9962	IDENTIFIED	3.078	☐
Lead-214	✓	1.283	0.1042	pCi/g	0.1016	0.100	351.9	4	1.261	IDENTIFIED	5.618	☐
Lutetium-177	HE	2.07	0.6767	pCi/g	1.734	N	0	9	0	FAIL_ABUND	0	☐
Neptunium-237	NL	1.125	0.1573	pCi/g	0.1957	N	87.21	3	0.987	IDENTIFIED	7.778	☐
Polonium-210	HE	0.964	0.309	pCi/g	0.6248	N	46.51	3	1.047	IDENTIFIED	31.7	☐
Polonium-212	NL	1.631	0.1056	pCi/g	0.07908	N	238.6	4	0.9962	IDENTIFIED	3.078	☐
Polonium-214	NL	1.283	0.1042	pCi/g	0.1016	N	351.9	4	1.261	IDENTIFIED	5.618	☐
Polonium-216	NL	1.631	0.1056	pCi/g	0.07908	N	238.6	4	0.9962	IDENTIFIED	3.078	☐
Polonium-218	NL	1.283	0.1042	pCi/g	0.1016	N	351.9	4	1.261	IDENTIFIED	5.618	☐
Potassium-40	✓	35.79	1.801	pCi/g	0.4426	1.00	1461	1	2.009	IDENTIFIED	2.68	☐
Radium-224	INT	4.064	0.5362	pCi/g	0.901	Y	241.6	1	1.463	IDENTIFIED	12.1	☑ UI
Radium-226	✓	1.213	0.1072	pCi/g	0.1075	Y	609.2	4	1.473	IDENTIFIED	6.448	☐
Radium-228	✓	1.405	0.1637	pCi/g	0.2167	0.500	911.2	3	1.65	IDENTIFIED	10.02	☐
Technetium-99m	—	4.43E+15	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐
Thallium-200	HE	225.7	190.3	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.5576	0.05364	pCi/g	0.05711	0.080	583.1	1	1.535	IDENTIFIED	7.795	☐
Thorium-228	NL	1.656	0.1072	pCi/g	0.08027	N	238.6	4	0.9962	IDENTIFIED	3.078	☐
Thorium-230	NL	1.213	0.1072	pCi/g	0.1075	N	609.2	4	1.473	IDENTIFIED	6.448	☐
Thorium-232	NL	1.405	0.1637	pCi/g	0.2167	N	911.2	3	1.65	IDENTIFIED	10.02	☐
Thorium-234	✓	1.746	0.3983	pCi/g	0.7374	2.00	63.26	2	0.9728	IDENTIFIED	20.82	☐
Tin-126	NL	0.383	0.03616	pCi/g	0.06693	N	87.21	3	0.987	IDENTIFIED	7.778	☐
Titanium-44	NL	0.3554	0.02286	pCi/g	0.04506	N	0	9	0	FAIL_ABUND	0	☐
Total Uranium		5.2383	1.19E-06	ug/g	1.0996	N		0				☐
Uranium-234	NL	1.213	0.1072	pCi/g	0.1075	N	609.2	4	1.473	IDENTIFIED	6.448	☐
Uranium-238	NL	1.746	0.3983	pCi/g	0.7374	N	63.26	2	0.9728	IDENTIFIED	20.82	☐
Zirconium-97	HE	1.63E+06	8.62E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246837006	08-FEB-10 12:00	23-FEB-10 12:13	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NL	1.361	0.1785	pCi/g	0.2293	N	910.8	3	1.539	IDENTIFIED	11.54	☐	
Americium-243	NL	0.3999	0.06006	pCi/g	0.09855	N	74.52	1	1.586	IDENTIFIED	14.37	☐	
Barium-137m	NL	0.2129	0.03585	pCi/g	0.07805	N	661.3	2	1.361	IDENTIFIED	16.28	☐	
Bismuth-211	INT	3.538	0.3434	pCi/g	0.3695	Y	351.7	4	1.316	IDENTIFIED	7.813	☑ UI	
Bismuth-212	HE	0.8763	0.2553	pCi/g	0.7273	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.174	0.1083	pCi/g	0.1285	0.200	608.9	4	1.376	IDENTIFIED	7.556	☐	
Cadmium-109	INT	2.525	0.6285	pCi/g	1.538	Y	87.03	3	0.9271	IDENTIFIED	24.39	☑ UI	
Cerium-143		612.9	116.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.2251	0.03791	pCi/g	0.08251	0.100	661.3	2	1.361	IDENTIFIED	16.28	☐	
Gold-195	HE	0.4773	0.1237	pCi/g	0.4426	N	0	7	0	FAIL_ABUND	0	☐	
Gross Gamma		8.868	1.272	pCi/g	3.15	N		0				☐	
Iodine-123	HE	1.98E+06	2.66E+06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.485	0.1107	pCi/g	0.09402	0.100	238.4	4	1.129	IDENTIFIED	3.996	☐	
Lead-214	✓	1.231	0.1237	pCi/g	0.1288	0.100	351.7	4	1.316	IDENTIFIED	7.813	☐	
Neptunium-237	HE	0.7289	0.1964	pCi/g	0.4641	N	87.03	3	0.9271	IDENTIFIED	24.39	☐	

Polonium-212	MU	1.485	0.1107	pCi/g	0.09402	N	238.4	4	1.129	IDENTIFIED	3.996	☐
Polonium-214	MU	1.231	0.1237	pCi/g	0.1288	N	351.7	4	1.316	IDENTIFIED	7.813	☐
Polonium-216	MU	1.485	0.1107	pCi/g	0.09402	N	238.4	4	1.129	IDENTIFIED	3.996	☐
Polonium-218	MU	1.231	0.1237	pCi/g	0.1288	N	351.7	4	1.316	IDENTIFIED	7.813	☐
Potassium-40	V	27.49	1.618	pCi/g	0.6764	1.00	1460	1	2.324	IDENTIFIED	3.472	☐
Radium-224	INT	5.228	0.8249	pCi/g	1.07	Y	241.3	1	1.872	IDENTIFIED	14.63	☑ UI
Radium-226	V	1.174	0.1083	pCi/g	0.1285	Y	608.9	4	1.376	IDENTIFIED	7.556	☐
Radium-228	V	1.361	0.1785	pCi/g	0.2293	0.500	910.8	3	1.539	IDENTIFIED	11.54	☐
Sodium-24	HE	4.92E+05	3.36E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐
Thallium-200	HE	4.787	227.9	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐
Thallium-208	V	0.3804	0.04586	pCi/g	0.07265	0.080	582.8	1	1.148	IDENTIFIED	10.96	☐
Thorium-228	MU	1.507	0.1123	pCi/g	0.09543	N	238.4	4	1.129	IDENTIFIED	3.996	☐
Thorium-230	MU	1.174	0.1083	pCi/g	0.1285	N	608.9	4	1.376	IDENTIFIED	7.556	☐
Thorium-232	MU	1.361	0.1785	pCi/g	0.2293	N	910.8	3	1.539	IDENTIFIED	11.54	☐
Thorium-234	V	6.943	1.567	pCi/g	2.476	2.00	62.85	2	1.011	IDENTIFIED	20.77	☐
Tin-126	HE	0.2482	0.06179	pCi/g	0.158	N	87.03	3	0.9271	IDENTIFIED	24.39	☐
Titanium-44	LA	0.3665	0.03214	pCi/g	0.07523	N	0	7	0	FAIL_ABUND	0	☐
Total Uranium		20.803	4.66E-06	ug/g	3.6866	N		0				☐
Uranium-234	MU	1.174	0.1083	pCi/g	0.1285	N	608.9	4	1.376	IDENTIFIED	7.556	☐
Uranium-238	MU	6.943	1.567	pCi/g	2.476	N	62.85	2	1.011	IDENTIFIED	20.77	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246841001	08-FEB-10 12:00	23-FEB-10 12:54	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.405	0.1973	pCi/g	0.2562	N	911.9	3	1.71	IDENTIFIED	12.76	☐	
Americium-243	MU	0.3536	0.04262	pCi/g	0.08963	N	74.87	1	1.536	IDENTIFIED	11.45	☐	
Annihilation Rad.	HE	0.1238	0.04541	pCi/g	0.0478	N	511.1	1	2.996	IDENTIFIED	36.57	☐	
Bismuth-211	INT	3.367	0.2472	pCi/g	0.3266	Y	351.8	4	1.322	IDENTIFIED	6.625	☑ UI	
Bismuth-212	HE	1.102	0.3357	pCi/g	0.7126	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	V	0.8936	0.08528	pCi/g	0.1185	0.200	609.4	4	1.493	IDENTIFIED	8.684	☐	
Cadmium-109	INT	2.357	0.4899	pCi/g	1.446	Y	87.11	3	1.493	IDENTIFIED	20.33	☑ UI	
Cerium-143		812.3	126.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.102	0.02769	pCi/g	0.1011	0.100	0	10	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		9.148	1.435	pCi/g	3.456	N		0				☐	
Krypton-85	HE	23.51	4.256	pCi/g	16	N	0	10	0	NOT_IDENTI	0	☐	
Lead-212	V	1.42	0.07607	pCi/g	0.09632	0.100	238.5	4	1.37	IDENTIFIED	3.93	☐	
Lead-214	V	1.171	0.09126	pCi/g	0.1221	0.100	351.8	4	1.322	IDENTIFIED	6.625	☐	
Lutetium-177	HE	2.247	0.7231	pCi/g	2.111	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.6805	0.1579	pCi/g	0.4343	N	87.11	3	1.493	IDENTIFIED	20.33	☐	
Niobium-95m	LA	0.5184	0.08553	pCi/g	0.2823	N	0	10	0	NOT_IDENTI	0	☐	
Polonium-212	MU	1.42	0.07607	pCi/g	0.09632	N	238.5	4	1.37	IDENTIFIED	3.93	☐	
Polonium-214	MU	1.171	0.09126	pCi/g	0.1221	N	351.8	4	1.322	IDENTIFIED	6.625	☐	
Polonium-216	MU	1.42	0.07607	pCi/g	0.09632	N	238.5	4	1.37	IDENTIFIED	3.93	☐	
Polonium-218	MU	1.171	0.09126	pCi/g	0.1221	N	351.8	4	1.322	IDENTIFIED	6.625	☐	
Potassium-40	V	38.86	1.769	pCi/g	0.5881	1.00	1461	1	2.177	IDENTIFIED	2.746	☐	
Radium-224	INT	4.433	0.6449	pCi/g	1.095	Y	241.5	1	1.908	IDENTIFIED	14.26	☑ UI	

Radium-226	V	0.8936	0.08528	pCi/g	0.1185	Y	609.4	4	1.493	IDENTIFIED	8.684	☐	
Radium-228	V	1.405	0.1973	pCi/g	0.2562	0.500	911.9	3	1.71	IDENTIFIED	12.76	☐	
Sodium-24	HE	4.23E+05	3.56E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1205	0.0218	pCi/g	0.08195	Y	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	V	0.4654	0.04249	pCi/g	0.06681	0.080	583.2	1	1.53	IDENTIFIED	8.466	☐	
Thorium-228	NU	1.441	0.07722	pCi/g	0.09777	N	238.5	4	1.37	IDENTIFIED	3.93	☐	
Thorium-230	NU	0.8936	0.08528	pCi/g	0.1185	N	609.4	4	1.493	IDENTIFIED	8.684	☐	
Thorium-232	NU	1.405	0.1973	pCi/g	0.2562	N	911.9	3	1.71	IDENTIFIED	12.76	☐	
Tin-126	HE	0.2317	0.04816	pCi/g	0.1481	N	87.11	3	1.493	IDENTIFIED	20.33	☐	
Titanium-44	LA	0.3174	0.02816	pCi/g	0.08088	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium		5.3704	1.88E-06	ug/g	3.1815	N		0				☐	
Uranium-234	NU	0.8936	0.08528	pCi/g	0.1185	N	609.4	4	1.493	IDENTIFIED	8.684	☐	
Zirconium-97		4.92E+06	1.08E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246841002	08-FEB-10 12:00	23-FEB-10 12:54	15	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NU	1.4	0.174	pCi/g	0.2504	N	909.8	3	2.206	IDENTIFIED	11	☐	
Americium-243	NU	0.3399	0.04756	pCi/g	0.1059	N	74.62	1	1.326	IDENTIFIED	13.27	☐	
Annihilation Rad.		0.1539	0.0403	pCi/g	0.05497	N	510.8	1	2.436	IDENTIFIED	26.04	☐	
Bismuth-211	INT	2.632	0.2288	pCi/g	0.3836	Y	351.4	4	1.356	IDENTIFIED	8.061	☑ UI	
Bismuth-212	HE	1.308	0.321	pCi/g	0.7044	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	V	1.074	0.09572	pCi/g	0.1154	0.200	608.5	4	1.635	IDENTIFIED	8.08	☐	
Cadmium-109	LA	2.117	0.572	pCi/g	1.821	Y	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cerium-143	—	1099	164.3	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.4079	0.1082	pCi/g	0.3012	N	269.7	1	1.217	IDENTIFIED	26.25	☐	
Gross Gamma	—	7.814	1.084	pCi/g	1.957	N		0				☐	
Iodine-123	HE	1.58E+06	2.88E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-133	HE	2254	3440	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212	V	1.149	0.06888	pCi/g	0.1056	0.100	238.3	4	1.139	IDENTIFIED	4.795	☐	
Lead-214	V	0.9155	0.08311	pCi/g	0.1202	0.100	351.4	4	1.356	IDENTIFIED	8.061	☐	
Lutetium-177	HE	3.224	0.7114	pCi/g	2.152	N	0	10	0	FAIL_ABUND	0	☐	
Niobium-95m	HE	0.4278	0.09366	pCi/g	0.2978	N	0	10	0	NOT_IDENTI	0	☐	
Niobium-97	HE	21040	52220	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-212	NU	1.149	0.06888	pCi/g	0.1056	N	238.3	4	1.139	IDENTIFIED	4.795	☐	
Polonium-214	NU	0.9155	0.08311	pCi/g	0.1202	N	351.4	4	1.356	IDENTIFIED	8.061	☐	
Polonium-216	NU	1.149	0.06888	pCi/g	0.1056	N	238.3	4	1.139	IDENTIFIED	4.795	☐	
Polonium-218	NU	0.9155	0.08311	pCi/g	0.1202	N	351.4	4	1.356	IDENTIFIED	8.061	☐	
Potassium-40	V	33.63	1.681	pCi/g	0.5077	1.00	1459	1	2.416	IDENTIFIED	3.312	☐	
Radium-224	INT	3.372	0.7409	pCi/g	1.202	Y	241.4	1	1.952	IDENTIFIED	21.79	☑ UI	
Radium-226	V	1.074	0.09572	pCi/g	0.1154	Y	608.5	4	1.635	IDENTIFIED	8.08	☐	
Radium-228	V	1.4	0.174	pCi/g	0.2504	0.500	909.8	3	2.206	IDENTIFIED	11	☐	
Thallium-208	V	0.3979	0.05693	pCi/g	0.06932	0.080	582.4	1	1.622	IDENTIFIED	13.94	☐	
Thorium-228	NU	1.167	0.06992	pCi/g	0.1072	N	238.3	4	1.139	IDENTIFIED	4.795	☐	
Thorium-230	NU	1.074	0.09572	pCi/g	0.1154	N	608.5	4	1.635	IDENTIFIED	8.08	☐	
Thorium-232	NU	1.4	0.174	pCi/g	0.2504	N	909.8	3	2.206	IDENTIFIED	11	☐	

Titanium-44	LA	0.3651	0.03313	pCi/g	0.09377	N	0	10	0	FAIL_ABUND	0	☐
Uranium-234	MU	1.074	0.09572	pCi/g	0.1154	N	608.5	4	1.635	IDENTIFIED	8.08	☐
Zirconium-97		6.53E+06	1.22E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246841003	08-FEB-10 12:00	23-FEB-10 13:11	15	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	MU	1.532	0.1708	pCi/g	0.2085	N	911.5	3	1.878	IDENTIFIED	9.43	☐	
Americium-243	MU	0.3156	0.03281	pCi/g	0.08105	N	74.87	1	0.8846	IDENTIFIED	9.533	☐	
Annihilation Rad.	HE	0.05887	0.03233	pCi/g	0.0483	N	510.9	1	1.572	IDENTIFIED	54.72	☐	
Bismuth-211	INT	2.949	0.2692	pCi/g	0.2876	Y	351.9	4	1.106	IDENTIFIED	7.321	☑ UI	
Bismuth-212	HE	1.003	0.2838	pCi/g	0.6358	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9081	0.08445	pCi/g	0.1084	0.200	609.3	4	1.195	IDENTIFIED	7.652	☐	
Cadmium-109	INT	3.317	0.4439	pCi/g	1.005	Y	87.21	3	1.137	IDENTIFIED	12.5	☑ UI	
Cerium-143	—	413.1	84.68	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1009	0.03378	pCi/g	0.08825	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		9.109	1.382	pCi/g	2.594	N		0				☐	
Lead-212	✓	1.407	0.09831	pCi/g	0.08484	0.100	238.6	4	0.9483	IDENTIFIED	3.713	☐	
Lead-214	✓	1.026	0.09739	pCi/g	0.1003	0.100	351.9	4	1.106	IDENTIFIED	7.321	☐	
Neptunium-237	MU	0.9575	0.1618	pCi/g	0.2724	N	87.21	3	1.137	IDENTIFIED	12.5	☐	
Niobium-97	HE	29520	41390	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Polonium-212	MU	1.407	0.09831	pCi/g	0.08484	N	238.6	4	0.9483	IDENTIFIED	3.713	☐	
Polonium-214	MU	1.026	0.09739	pCi/g	0.1003	N	351.9	4	1.106	IDENTIFIED	7.321	☐	
Polonium-216	MU	1.407	0.09831	pCi/g	0.08484	N	238.6	4	0.9483	IDENTIFIED	3.713	☐	
Polonium-218	MU	1.026	0.09739	pCi/g	0.1003	N	351.9	4	1.106	IDENTIFIED	7.321	☐	
Potassium-40	✓	38.17	1.948	pCi/g	0.5891	1.00	1461	1	1.88	IDENTIFIED	2.596	☐	
Radium-224	INT	4.19	0.5433	pCi/g	0.9656	Y	241.6	1	1.883	IDENTIFIED	11.74	☑ UI	
Radium-226	✓	0.9081	0.08445	pCi/g	0.1084	Y	609.3	4	1.195	IDENTIFIED	7.652	☐	
Radium-228	✓	1.532	0.1708	pCi/g	0.2085	0.500	911.5	3	1.878	IDENTIFIED	9.43	☐	
Technetium-99m		8.55E+13	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-200	HE	354.1	205.6	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4783	0.04405	pCi/g	0.05795	0.080	583.3	1	1.238	IDENTIFIED	7.764	☐	
Thorium-228	MU	1.428	0.0998	pCi/g	0.08612	N	238.6	4	0.9483	IDENTIFIED	3.713	☐	
Thorium-230	MU	0.9081	0.08445	pCi/g	0.1084	N	609.3	4	1.195	IDENTIFIED	7.652	☐	
Thorium-232	MU	1.532	0.1708	pCi/g	0.2085	N	911.5	3	1.878	IDENTIFIED	9.43	☐	
Thorium-234	✓	2.02	0.7183	pCi/g	1.77	2.00	63.38	2	0.7869	IDENTIFIED	34.48	☐	
Tin-126	MU	0.3261	0.04363	pCi/g	0.09927	N	87.21	3	1.137	IDENTIFIED	12.5	☐	
Titanium-44	LA	0.3117	0.02471	pCi/g	0.06646	N	0	8	0	FAIL_ABUND	0	☐	
Total Uranium		6.0815	2.14E-06	ug/g	2.6352	N		0				☐	
Uranium-234	MU	0.9081	0.08445	pCi/g	0.1084	N	609.3	4	1.195	IDENTIFIED	7.652	☐	
Uranium-238	HE	2.02	0.7183	pCi/g	1.77	N	63.38	2	0.7869	IDENTIFIED	34.48	☐	
Zirconium-97	HE	2.24E+05	9.00E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246843002	08-FEB-10 12:00	23-FEB-10 13:33	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	ML	1.286	0.1973	pCi/g	0.2143	N	910.5	3	1.768	IDENTIFIED	14.04	☐	
Americium-243	ML	0.2299	0.04308	pCi/g	0.1013	N	74.52	1	0.9819	IDENTIFIED	17.92	☐	
Annihilation Rad.	—	0.1216	0.03624	pCi/g	0.04254	N	510.6	1	1.992	IDENTIFIED	29.62	☐	
Bismuth-211	INT	2.504	0.2121	pCi/g	0.3243	Y	351.4	4	1.177	IDENTIFIED	7.646	☑ UI	
Bismuth-212	HE	0.8695	0.2052	pCi/g	0.6467	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.6625	0.07151	pCi/g	0.09209	0.200	608.7	4	1.373	IDENTIFIED	10.1	☐	
Cadmium-109	↑PW	3.069	0.8932	pCi/g	1.417	Y	88.62	2	3.628	IDENTIFIED	28.56	☑ UI	Data rejected due to high peak-width.
Cerium-143	—	856.5	142.7	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Gross Gamma	—	8.164	1.248	pCi/g	2.423	N		0				☐	
Iodine-133	HE	2262	2765	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.05E+14	2.60E+15	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.384	0.07573	pCi/g	0.08452	0.100	238.2	4	1.097	IDENTIFIED	3.947	☐	
Lead-214	✓	0.8711	0.07721	pCi/g	0.1228	0.100	351.4	4	1.177	IDENTIFIED	7.646	☐	
Lutetium-177	HE	2.485	0.8405	pCi/g	1.99	N	0	9	0	FAIL_ABUND	0	☐	
Polonium-212	ML	1.384	0.07573	pCi/g	0.08452	N	238.2	4	1.097	IDENTIFIED	3.947	☐	
Polonium-214	ML	0.8711	0.07721	pCi/g	0.1228	N	351.4	4	1.177	IDENTIFIED	7.646	☐	
Polonium-216	ML	1.384	0.07573	pCi/g	0.08452	N	238.2	4	1.097	IDENTIFIED	3.947	☐	
Polonium-218	ML	0.8711	0.07721	pCi/g	0.1228	N	351.4	4	1.177	IDENTIFIED	7.646	☐	
Potassium-40	✓	35.13	1.725	pCi/g	0.3614	1.00	1459	1	1.912	IDENTIFIED	2.964	☐	
Radium-224	INT	3.362	0.5086	pCi/g	0.9616	Y	241.1	1	1.774	IDENTIFIED	14.81	☑ UI	
Radium-226	✓	0.6625	0.07151	pCi/g	0.09209	Y	608.7	4	1.373	IDENTIFIED	10.1	☐	
Radium-228	✓	1.286	0.1973	pCi/g	0.2143	0.500	910.5	3	1.768	IDENTIFIED	14.04	☐	
Sodium-24	HE	4.49E+05	3.57E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-200	HE	56.44	212.2	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4463	0.0379	pCi/g	0.05969	0.080	582.5	1	1.497	IDENTIFIED	7.797	☐	
Thorium-228	ML	1.405	0.07688	pCi/g	0.08579	N	238.2	4	1.097	IDENTIFIED	3.947	☐	
Thorium-230	ML	0.6625	0.0715	pCi/g	0.09208	N	608.7	4	1.373	IDENTIFIED	10.1	☐	
Thorium-232	ML	1.286	0.1973	pCi/g	0.2143	N	910.5	3	1.768	IDENTIFIED	14.04	☐	
Tin-126	HE	0.3017	0.0878	pCi/g	0.1403	N	88.62	2	3.628	IDENTIFIED	28.56	☐	
Titanium-44	LA	0.2773	0.02264	pCi/g	0.07486	N	0	9	0	FAIL_ABUND	0	☐	
Uranium-234	ML	0.6625	0.0715	pCi/g	0.09208	N	608.7	4	1.373	IDENTIFIED	10.1	☐	
Zirconium-97	—	4.30E+06	1.05E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246843003	08-FEB-10 12:00	23-FEB-10 13:33	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	ML	1.475	0.1556	pCi/g	0.168	N	910.9	3	1.792	IDENTIFIED	8.208	☐	
Americium-243	ML	0.2499	0.0361	pCi/g	0.09119	N	75.13	1	0.9919	IDENTIFIED	13.83	☐	
Annihilation Rad.	—	0.1441	0.0294	pCi/g	0.036	N	510.7	1	1.585	IDENTIFIED	20.13	☐	
Antimony-126	HE	0.2203	0.06317	pCi/g	0.2119	N	0	12	0	FAIL_ABUND	0	☐	
Bismuth-211	INT	2.699	0.202	pCi/g	0.2591	Y	351.9	4	1.273	IDENTIFIED	6.76	☑ UI	
Bismuth-212	LA	0.982	0.2117	pCi/g	0.5364	N	0	12	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.7937	0.0704	pCi/g	0.09678	0.200	609	4	1.644	IDENTIFIED	7.664	☐	
Cadmium-109	INT	2.422	0.4582	pCi/g	1.342	Y	87.34	3	1.302	IDENTIFIED	18.35	☑ UI	
Cerium-143	—	536.6	89.76	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.121	0.02944	pCi/g	0.06967	0.100	0	12	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.

Cesium-135	HE	0.2672	0.06886	pCi/g	0.2251	N	0	12	0	NOT_IDENTI	0	☐	
Gross Gamma		7.34	1.036	pCi/g	2.191	N		0				☐	
Krypton-85	HE	13.11	3.718	pCi/g	11.95	N	0	12	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.521	0.07395	pCi/g	0.07506	0.100	238.7	4	1.258	IDENTIFIED	3.301	☐	
Lead-214	✓	0.9388	0.0744	pCi/g	0.09031	0.100	351.9	4	1.273	IDENTIFIED	6.76	☐	
Lutetium-177	HE	2.664	0.56	pCi/g	1.623	N	0	12	0	FAIL_ABUND	0	☐	
Neptunium-237	NL	0.6992	0.1507	pCi/g	0.3899	N	87.34	3	1.302	IDENTIFIED	18.35	☐	
Polonium-212	NL	1.521	0.07395	pCi/g	0.07506	N	238.7	4	1.258	IDENTIFIED	3.301	☐	
Polonium-214	NL	0.9388	0.0744	pCi/g	0.09031	N	351.9	4	1.273	IDENTIFIED	6.76	☐	
Polonium-216	NL	1.521	0.07395	pCi/g	0.07506	N	238.7	4	1.258	IDENTIFIED	3.301	☐	
Polonium-218	NL	0.9388	0.0744	pCi/g	0.09031	N	351.9	4	1.273	IDENTIFIED	6.76	☐	
Potassium-40	✓	22.97	1.119	pCi/g	0.4013	1.00	1460	1	2.211	IDENTIFIED	3.053	☐	
Radium-224	INT	3.178	0.4638	pCi/g	0.853	Y	241.7	1	1.607	IDENTIFIED	14.33	☑ UI	
Radium-226	✓	0.7937	0.0704	pCi/g	0.09678	Y	609	4	1.644	IDENTIFIED	7.664	☐	
Radium-228	✓	1.475	0.1556	pCi/g	0.168	0.500	910.9	3	1.792	IDENTIFIED	8.208	☐	
Sodium-24	HE	73090	2.93E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.0672	0.01905	pCi/g	0.06125	Y	0	12	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-200	HE	5.483	174.9	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4366	0.03649	pCi/g	0.04485	0.080	583	1	1.633	IDENTIFIED	7.383	☐	
Thorium-228	NL	1.544	0.07507	pCi/g	0.07619	N	238.7	4	1.258	IDENTIFIED	3.301	☐	
Thorium-230	NL	0.7937	0.0704	pCi/g	0.09677	N	609	4	1.644	IDENTIFIED	7.664	☐	
Thorium-232	NL	1.475	0.1556	pCi/g	0.168	N	910.9	3	1.792	IDENTIFIED	8.208	☐	
Tin-126	NL	0.2381	0.04504	pCi/g	0.1378	N	87.34	3	1.302	IDENTIFIED	18.35	☐	
Titanium-44	LA	0.2806	0.0294	pCi/g	0.07849	N	0	12	0	FAIL_ABUND	0	☐	
Uranium-234	NL	0.7937	0.0704	pCi/g	0.09677	N	609	4	1.644	IDENTIFIED	7.664	☐	
Zirconium-97		4.22E+06	8.50E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246843004	08-FEB-10 12:00	23-FEB-10 13:34	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NL	1.459	0.1802	pCi/g	0.2889	N	910.8	3	1.416	IDENTIFIED	10.97	☐	
Americium-243	NL	0.3184	0.02428	pCi/g	0.04425	N	74.83	1	0.7638	IDENTIFIED	6.336	☐	
Annihilation Rad.	—	0.1587	0.03802	pCi/g	0.0487	N	510.6	1	1.585	IDENTIFIED	23.48	☐	
Bismuth-210	HE	1.107	0.2912	pCi/g	0.5482	N	46.73	3	0.6461	IDENTIFIED	25.86	☐	
Bismuth-211	INT	2.593	0.2528	pCi/g	0.2765	Y	351.8	4	0.9599	IDENTIFIED	8.644	☑ UI	
Bismuth-212	HE	0.9447	0.2399	pCi/g	0.7822	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.8835	0.09918	pCi/g	0.1204	0.200	608.9	4	1.12	IDENTIFIED	9.546	☐	
Cadmium-109	INT	2.532	0.3509	pCi/g	0.6289	Y	87.3	3	1.14	IDENTIFIED	13.05	☑ UI	
Cerium-143	—	333.7	74.32	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.2652	0.09265	pCi/g	0.1963	N	269.7	1	0.9341	IDENTIFIED	34.56	☐	
Gross Gamma	—	7.37	1.087	pCi/g	2.808	N		0				☐	
Iodine-133	HE	927.7	3306	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-210	HE	1.107	0.2912	pCi/g	0.5482	N	46.73	3	0.6461	IDENTIFIED	25.86	☐	
Lead-212	✓	1.464	0.09019	pCi/g	0.07521	0.100	238.5	4	0.8994	IDENTIFIED	3.641	☐	
Lead-214	✓	0.902	0.09103	pCi/g	0.09644	0.100	351.8	4	0.9599	IDENTIFIED	8.644	☐	
Lutetium-177	HE	2.368	0.5348	pCi/g	1.754	N	0	7	0	FAIL_ABUND	0	☐	

Neptunium-237	ML	0.7308	0.1263	pCi/g	0.1805	N	87.3	3	1.14	IDENTIFIED	13.05	☐	
Polonium-210	HE	1.107	0.2904	pCi/g	0.5482	N	46.73	3	0.6461	IDENTIFIED	25.86	☐	
Polonium-212	ML	1.464	0.09019	pCi/g	0.07521	N	238.5	4	0.8994	IDENTIFIED	3.641	☐	
Polonium-214	ML	0.902	0.09103	pCi/g	0.09644	N	351.8	4	0.9599	IDENTIFIED	8.644	☐	
Polonium-216	ML	1.464	0.09019	pCi/g	0.07521	N	238.5	4	0.8994	IDENTIFIED	3.641	☐	
Polonium-218	ML	0.902	0.09103	pCi/g	0.09644	N	351.8	4	0.9599	IDENTIFIED	8.644	☐	
Potassium-40	✓	23.88	1.442	pCi/g	0.339	1.00	1460	1	1.992	IDENTIFIED	4.27	☐	
Radium-224	INT	2.357	0.4659	pCi/g	0.8582	Y	240.7	1	1.168	IDENTIFIED	19.26	☑ UI	
Radium-226	✓	0.8835	0.09918	pCi/g	0.1204	Y	608.9	4	1.12	IDENTIFIED	9.546	☐	
Radium-228	✓	1.459	0.1802	pCi/g	0.2889	0.500	910.8	3	1.416	IDENTIFIED	10.97	☐	
Technetium-99m		5.77E+15	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5236	0.05822	pCi/g	0.07571	0.080	582.9	1	1.278	IDENTIFIED	9.694	☐	
Thorium-228	ML	1.486	0.09156	pCi/g	0.07635	N	238.5	4	0.8994	IDENTIFIED	3.641	☐	
Thorium-230	ML	0.8834	0.09918	pCi/g	0.1204	N	608.9	4	1.12	IDENTIFIED	9.546	☐	
Thorium-232	ML	1.459	0.1802	pCi/g	0.2889	N	910.8	3	1.416	IDENTIFIED	10.97	☐	
Thorium-234	✓	1.273	0.3942	pCi/g	0.6917	2.00	63.34	2	1.039	IDENTIFIED	29.68	☐	
Tin-126	ML	0.2489	0.03449	pCi/g	0.06171	N	87.3	3	1.14	IDENTIFIED	13.05	☐	
Titanium-44	LA	0.3198	0.01947	pCi/g	0.03627	N	0	7	0	FAIL_ABUND	0	☐	
Total Uranium		3.8085	1.17E-06	ug/g	1.0313	N		0				☐	
Uranium-234	ML	0.8834	0.09918	pCi/g	0.1204	N	608.9	4	1.12	IDENTIFIED	9.546	☐	
Uranium-238	HE	1.273	0.3942	pCi/g	0.6917	N	63.34	2	1.039	IDENTIFIED	29.68	☐	
Zirconium-97		2.57E+06	9.81E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246846001	08-FEB-10 12:00	23-FEB-10 14:22	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	ML	1.523	0.207	pCi/g	0.2633	N	911.4	3	1.699	IDENTIFIED	12.25	☐	
Americium-243	HE	0.2238	0.06161	pCi/g	0.1293	N	74.96	1	1.435	IDENTIFIED	26.92	☐	
Annihilation Rad.	HE	0.08334	0.03581	pCi/g	0.06178	N	511	1	1.592	IDENTIFIED	42.75	☐	
Bismuth-211	INT	2.89	0.2944	pCi/g	0.4498	Y	351.8	4	1.515	IDENTIFIED	8.89	☑ UI	
Bismuth-214	✓	0.7957	0.08378	pCi/g	0.1357	0.200	609.3	4	1.533	IDENTIFIED	9.289	☐	
Cadmium-109	INT	2.208	0.761	pCi/g	1.659	Y	87.39	3	1.048	IDENTIFIED	33.91	☑ UI	
Cerium-143		604.4	123.4	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Gross Gamma		8.655	1.446	pCi/g	2.884	N		0				☐	
Iodine-133	HE	2079	3383	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Krypton-85	HE	22.67	5.346	pCi/g	17.77	N	0	7	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.402	0.1056	pCi/g	0.1191	0.100	238.8	4	1.296	IDENTIFIED	4.618	☐	
Lead-214	✓	1.005	0.1057	pCi/g	0.1568	0.100	351.8	4	1.515	IDENTIFIED	8.89	☐	
Neptunium-237	HE	0.6372	0.2293	pCi/g	0.5004	N	87.39	3	1.048	IDENTIFIED	33.91	☐	
Niobium-95m	HE	0.3013	0.09185	pCi/g	0.2951	N	0	7	0	NOT_IDENTI	0	☐	
Polonium-212	ML	1.402	0.1056	pCi/g	0.1191	N	238.8	4	1.296	IDENTIFIED	4.618	☐	
Polonium-214	ML	1.005	0.1057	pCi/g	0.1568	N	351.8	4	1.515	IDENTIFIED	8.89	☐	
Polonium-216	ML	1.402	0.1056	pCi/g	0.1191	N	238.8	4	1.296	IDENTIFIED	4.618	☐	
Polonium-218	ML	1.005	0.1057	pCi/g	0.1568	N	351.8	4	1.515	IDENTIFIED	8.89	☐	
Potassium-40	✓	38.2	2.164	pCi/g	0.5192	1.00	1460	1	2.239	IDENTIFIED	2.82	☐	
Radium-224	INT	4.413	0.9878	pCi/g	1.354	Y	241.5	1	2.468	IDENTIFIED	21.7	☑ UI	

Radium-226	✓	0.7957	0.08378	pCi/g	0.1357	Y	609.3	4	1.533	IDENTIFIED	9.289	☐	
Radium-228	✓	1.523	0.207	pCi/g	0.2633	0.500	911.4	3	1.699	IDENTIFIED	12.25	☐	
Strontium-85	LA	0.1162	0.0274	pCi/g	0.09107	Y	0	7	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208	✓	0.4823	0.05107	pCi/g	0.06642	0.080	583.1	1	1.497	IDENTIFIED	9.547	☐	
Thorium-228	NM	1.423	0.1072	pCi/g	0.1209	N	238.8	4	1.296	IDENTIFIED	4.618	☐	
Thorium-230	NM	0.7957	0.08377	pCi/g	0.1357	N	609.3	4	1.533	IDENTIFIED	9.289	☐	
Thorium-232	NM	1.523	0.207	pCi/g	0.2633	N	911.4	3	1.699	IDENTIFIED	12.25	☐	
Tin-126	HE	0.217	0.0748	pCi/g	0.1643	N	87.39	3	1.048	IDENTIFIED	33.91	☐	
Titanium-44	LA	0.2961	0.04265	pCi/g	0.1081	N	0	7	0	FAIL_ABUND	0	☐	
Uranium-234	NM	0.7957	0.08377	pCi/g	0.1357	N	609.3	4	1.533	IDENTIFIED	9.289	☐	
Zirconium-97		3.08E+06	1.30E+06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246846002	08-FEB-10 12:00	23-FEB-10 14:22	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	NM	1.367	0.1583	pCi/g	0.182	N	911.1	3	2.298	IDENTIFIED	9.5	☐	
Americium-243	NM	0.3151	0.03302	pCi/g	0.07271	N	74.79	1	1.224	IDENTIFIED	9.653	☐	
Annihilation Rad.		0.1296	0.03057	pCi/g	0.03799	N	510.7	1	1.895	IDENTIFIED	23.04	☐	
Bismuth-211	INT	3.032	0.2658	pCi/g	0.2725	Y	352.1	4	1.429	IDENTIFIED	6.564	☑	UI
Bismuth-212	HE	0.8024	0.2747	pCi/g	0.522	N	0	12	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.8447	0.08621	pCi/g	0.0964	0.200	609.5	4	1.677	IDENTIFIED	8.387	☐	
Cadmium-109	INT	2.152	0.4325	pCi/g	1.007	Y	86.99	3	1.088	IDENTIFIED	19.54	☑	UI
Cerium-143	—	622.9	103	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.08203	0.02791	pCi/g	0.07473	0.100	0	12	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Gross Gamma	—	9.208	1.245	pCi/g	1.974	N		0				☐	
Iodine-133	HE	2163	2337	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Krypton-85	HE	20.12	3.902	pCi/g	12.54	N	0	12	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.416	0.1036	pCi/g	0.07829	0.100	238.7	4	1.251	IDENTIFIED	3.152	☐	
Lead-214	✓	1.055	0.09648	pCi/g	0.09495	0.100	352.1	4	1.429	IDENTIFIED	6.564	☐	
Lutetium-177	HE	2.089	0.81	pCi/g	1.785	N	0	12	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.6212	0.1403	pCi/g	0.3437	N	86.99	3	1.088	IDENTIFIED	19.54	☐	
Niobium-95	HE	0.06634	0.02039	pCi/g	0.06438	N	0	12	0	NOT_IDENTI	0	☐	
Niobium-97	HE	22890	40300	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Polonium-212	NM	1.416	0.1036	pCi/g	0.07829	N	238.7	4	1.251	IDENTIFIED	3.152	☐	
Polonium-214	NM	1.055	0.09648	pCi/g	0.09495	N	352.1	4	1.429	IDENTIFIED	6.564	☐	
Polonium-216	NM	1.416	0.1036	pCi/g	0.07829	N	238.7	4	1.251	IDENTIFIED	3.152	☐	
Polonium-218	NM	1.055	0.09648	pCi/g	0.09495	N	352.1	4	1.429	IDENTIFIED	6.564	☐	
Potassium-40	✓	39.32	1.966	pCi/g	0.4344	1.00	1461	1	2.621	IDENTIFIED	2.005	☐	
Radium-224	INT	3.972	0.5566	pCi/g	0.8899	Y	241.6	1	1.713	IDENTIFIED	12.53	☑	UI
Radium-226	✓	0.8447	0.08621	pCi/g	0.0964	Y	609.5	4	1.677	IDENTIFIED	8.387	☐	
Radium-228	✓	1.367	0.1583	pCi/g	0.182	0.500	911.1	3	2.298	IDENTIFIED	9.5	☐	
Strontium-85	LA	0.1031	0.02	pCi/g	0.06427	Y	0	12	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-200	HE	103.3	179.3	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4227	0.03802	pCi/g	0.05059	0.080	583.3	1	1.436	IDENTIFIED	7.175	☐	
Thorium-228	NM	1.437	0.1052	pCi/g	0.07948	N	238.7	4	1.251	IDENTIFIED	3.152	☐	
Thorium-230	NM	0.8447	0.08621	pCi/g	0.0964	N	609.5	4	1.677	IDENTIFIED	8.387	☐	

Thorium-232	NL	1.367	0.1583	pCi/g	0.182	N	911.1	3	2.298	IDENTIFIED	9.5	☐
Tin-126	NL	0.2115	0.04251	pCi/g	0.1173	N	86.99	3	1.088	IDENTIFIED	19.54	☐
Titanium-44	LA	0.3093	0.02445	pCi/g	0.0631	N	0	12	0	FAIL_ABUND	0	☐
Total Uranium		5.0809	1.63E-06	ug/g	2.9174	N		0				☐
Uranium-234	NL	0.8447	0.08621	pCi/g	0.0964	N	609.5	4	1.677	IDENTIFIED	8.387	☐
Zirconium-97		5.32E+06	9.31E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246847001	08-FEB-10 12:00	23-FEB-10 14:22	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	NL	1.7	0.1773	pCi/g	0.2424	N	911.2	3	1.311	IDENTIFIED	8.563	☐	
Americium-243	NL	0.369	0.02869	pCi/g	0.04385	N	74.77	1	0.9581	IDENTIFIED	5.887	☐	
Annihilation Rad.		0.1589	0.04069	pCi/g	0.05127	N	510.8	1	2.094	IDENTIFIED	25.08	☐	
Bismuth-211	INT	3.167	0.2861	pCi/g	0.3178	Y	351.9	4	1.121	IDENTIFIED	7.347	☑ UI	
Bismuth-212	HE	1.225	0.3025	pCi/g	0.7786	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	V	1.017	0.1016	pCi/g	0.1178	0.200	609.2	4	1.488	IDENTIFIED	7.962	☐	
Cadmium-109	INT	3.343	0.3524	pCi/g	0.6892	Y	87.18	3	0.8916	IDENTIFIED	9.081	☑ VI	
Cerium-143		396.4	84.83	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1411	0.04365	pCi/g	0.1022	0.100	0	10	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		9.649	1.373	pCi/g	2.799	N		0				☐	
Iodine-123	HE	1.34E+06	2.36E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-133	HE	67.62	3535	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.56E+15	3.35E+15	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212	V	1.667	0.1105	pCi/g	0.07992	0.100	238.6	4	0.9946	IDENTIFIED	3.4	☐	
Lead-214	V	1.101	0.1036	pCi/g	0.1108	0.100	351.9	4	1.121	IDENTIFIED	7.347	☐	
Lutetium-177	HE	2.702	0.7903	pCi/g	1.823	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	NR	0.965	0.1423	pCi/g	0.2214	N	87.18	3	0.8916	IDENTIFIED	9.081	☐	
Polonium-212	NL	1.667	0.1105	pCi/g	0.07992	N	238.6	4	0.9946	IDENTIFIED	3.4	☐	
Polonium-214	NL	1.101	0.1036	pCi/g	0.1108	N	351.9	4	1.121	IDENTIFIED	7.347	☐	
Polonium-216	NL	1.667	0.1105	pCi/g	0.07992	N	238.6	4	0.9946	IDENTIFIED	3.4	☐	
Polonium-218	NL	1.101	0.1036	pCi/g	0.1108	N	351.9	4	1.121	IDENTIFIED	7.347	☐	
Potassium-40	V	37.04	1.914	pCi/g	0.6291	1.00	1461	1	2.15	IDENTIFIED	2.924	☐	
Radium-224	INT	4.71	0.7297	pCi/g	0.9106	Y	241.4	1	1.699	IDENTIFIED	14.57	☑ VI	
Radium-226	V	1.017	0.1016	pCi/g	0.1178	Y	609.2	4	1.488	IDENTIFIED	7.962	☐	
Radium-228	V	1.7	0.1773	pCi/g	0.2424	0.500	911.2	3	1.311	IDENTIFIED	8.563	☐	
Technetium-99m		2.34E+16	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	V	0.5395	0.05263	pCi/g	0.07184	0.080	583	1	1.321	IDENTIFIED	7.961	☐	
Thorium-228	NL	1.692	0.1122	pCi/g	0.08113	N	238.6	4	0.9946	IDENTIFIED	3.4	☐	
Thorium-230	NL	1.017	0.1016	pCi/g	0.1178	N	609.2	4	1.488	IDENTIFIED	7.962	☐	
Thorium-232	NL	1.7	0.1773	pCi/g	0.2424	N	911.2	3	1.311	IDENTIFIED	8.563	☐	
Tin-126	NL	0.3286	0.03464	pCi/g	0.06761	N	87.18	3	0.8916	IDENTIFIED	9.081	☐	
Titanium-44	LA	0.3636	0.02394	pCi/g	0.0455	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium		2.468	8.44E-07	ug/g	1.4462	N		0				☐	
Uranium-234	NR	1.017	0.1016	pCi/g	0.1178	N	609.2	4	1.488	IDENTIFIED	7.962	☐	
Zirconium-97		2.76E+06	1.07E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246847002	08-FEB-10 12:00	23-FEB-10 15:22	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	ML	1.276	0.1997	pCi/g	0.215	N	911	3	1.529	IDENTIFIED	14.66	☐	
Americium-243	ML	0.3521	0.04016	pCi/g	0.08773	N	74.74	1	1.222	IDENTIFIED	10.89	☐	
Annihilation Rad.	HE	0.06414	0.03423	pCi/g	0.04591	N	510.3	1	1.363	IDENTIFIED	53.28	☐	
Barium-133	HE	0.08141	0.02283	pCi/g	0.0764	N	0	9	0	NOT_IDENTI	0	☐	
Bismuth-211	INT	2.504	0.2089	pCi/g	0.3331	Y	351.8	4	1.088	IDENTIFIED	7.726	☑ UI	
Bismuth-212	HE	0.9838	0.2382	pCi/g	0.6687	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9565	0.09117	pCi/g	0.1038	0.200	608.9	4	1.141	IDENTIFIED	8.598	☐	
Cadmium-109	INT	3.656	0.534	pCi/g	1.148	Y	87.12	3	1.302	IDENTIFIED	14.11	☑ UI	
Cerium-143		514	97.62	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Gross Gamma		8.744	1.208	pCi/g	2.039	N		0				☐	
Lead-212	✓	1.377	0.07125	pCi/g	0.08576	0.100	238.4	4	1.091	IDENTIFIED	3.764	☐	
Lead-214	✓	0.8711	0.07613	pCi/g	0.1237	0.100	351.8	4	1.088	IDENTIFIED	7.726	☐	
Lutetium-177	HE	2.818	0.7033	pCi/g	1.928	N	0	9	0	FAIL_ABUND	0	☐	
Neptunium-237	ML	1.055	0.1887	pCi/g	0.3368	N	87.12	3	1.302	IDENTIFIED	14.11	☐	
Niobium-97	HE	25520	46680	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Polonium-212	ML	1.377	0.07125	pCi/g	0.08576	N	238.4	4	1.091	IDENTIFIED	3.764	☐	
Polonium-214	ML	0.8711	0.07613	pCi/g	0.1237	N	351.8	4	1.088	IDENTIFIED	7.726	☐	
Polonium-216	ML	1.377	0.07125	pCi/g	0.08576	N	238.4	4	1.091	IDENTIFIED	3.764	☐	
Polonium-218	ML	0.8711	0.07613	pCi/g	0.1237	N	351.8	4	1.088	IDENTIFIED	7.726	☐	
Potassium-40	✓	38.16	1.724	pCi/g	0.6771	1.00	1460	1	2.095	IDENTIFIED	2.774	☐	
Radium-224	INT	4.243	0.6569	pCi/g	0.9761	Y	241.4	1	1.922	IDENTIFIED	15.23	☑ UI	
Radium-226	✓	0.9565	0.09117	pCi/g	0.1038	Y	608.9	4	1.141	IDENTIFIED	8.598	☐	
Radium-228	✓	1.276	0.1997	pCi/g	0.215	0.500	911	3	1.529	IDENTIFIED	14.66	☐	
Sodium-24	HE	8.00E+05	4.18E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-200	HE	412.2	209.8	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4369	0.04335	pCi/g	0.05615	0.080	582.9	1	1.219	IDENTIFIED	9.257	☐	
Thorium-228	ML	1.398	0.07233	pCi/g	0.08707	N	238.4	4	1.091	IDENTIFIED	3.764	☐	
Thorium-230	ML	0.9564	0.09117	pCi/g	0.1038	N	608.9	4	1.141	IDENTIFIED	8.598	☐	
Thorium-232	ML	1.276	0.1997	pCi/g	0.215	N	911	3	1.529	IDENTIFIED	14.66	☐	
Tin-126	ML	0.3593	0.05248	pCi/g	0.1134	N	87.12	3	1.302	IDENTIFIED	14.11	☐	
Titanium-44	LA	0.2954	0.0256	pCi/g	0.07038	N	0	9	0	FAIL_ABUND	0	☐	
Uranium-234	ML	0.9564	0.09117	pCi/g	0.1038	N	608.9	4	1.141	IDENTIFIED	8.598	☐	
Zirconium-97		5.48E+06	9.99E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202041817		23-FEB-10 15:22	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-123	HE	414.7	344.4	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.44E+08	8.86E+07	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Sodium-24	HE	42.34	149.4	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202041818	08-FEB-10 12:00	23-FEB-10 16:54	15.2	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.376	0.1833	pCi/g	0.2972	N	911	3	1.595	IDENTIFIED	11.95	☐	
Americium-243	MU	0.3504	0.06175	pCi/g	0.1462	N	74.94	1	1.381	IDENTIFIED	16.66	☐	
Annihilation Rad.		0.1559	0.0461	pCi/g	0.06024	N	511.2	1	1.883	IDENTIFIED	29.25	☐	
Bismuth-211	INT	3.429	0.3304	pCi/g	0.4634	Y	352	4	1.263	IDENTIFIED	8.255	☑ UI	
Bismuth-212	HE	0.9972	0.3333	pCi/g	0.8201	N	0	13	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.099	0.1112	pCi/g	0.1463	0.200	609.5	4	1.542	IDENTIFIED	8.821	☐	
Cadmium-109	INT	2.256	0.7017	pCi/g	2.064	Y	87.31	3	1.211	IDENTIFIED	30.49	☑ UI	
Cerium-143		870.8	159	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Gross Gamma		8.736	1.353	pCi/g	2.377	N		0				☐	
Iodine-123	HE	4.44E+06	4.56E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-133	HE	1575	4460	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-135	HE	3.73E+15	5.03E+15	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Krypton-85	HE	28.45	5.609	pCi/g	19.12	N	0	13	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.612	0.121	pCi/g	0.1267	0.100	238.7	4	1.318	IDENTIFIED	4.573	☐	
Lead-214	✓	1.193	0.1191	pCi/g	0.1615	0.100	352	4	1.263	IDENTIFIED	8.255	☐	
Lutetium-177	HE	2.792	1.057	pCi/g	2.774	N	0	13	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.651	0.2134	pCi/g	0.5575	N	87.31	3	1.211	IDENTIFIED	30.49	☐	
Niobium-97	HE	272.9	64460	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Polonium-212	MU	1.612	0.121	pCi/g	0.1267	N	238.7	4	1.318	IDENTIFIED	4.573	☐	
Polonium-214	MU	1.193	0.1191	pCi/g	0.1615	N	352	4	1.263	IDENTIFIED	8.255	☐	
Polonium-216	MU	1.612	0.121	pCi/g	0.1267	N	238.7	4	1.318	IDENTIFIED	4.573	☐	
Polonium-218	MU	1.193	0.1191	pCi/g	0.1615	N	352	4	1.263	IDENTIFIED	8.255	☐	
Potassium-40	✓	37.51	2.213	pCi/g	0.7469	1.00	1460	1	1.944	IDENTIFIED	3.268	☐	
Radium-224	INT	4.776	1.126	pCi/g	1.441	Y	241.7	1	2.468	IDENTIFIED	22.92	☑ UI	
Radium-226	✓	1.099	0.1112	pCi/g	0.1463	Y	609.5	4	1.542	IDENTIFIED	8.821	☐	
Radium-228	✓	1.376	0.1833	pCi/g	0.2972	0.500	911	3	1.595	IDENTIFIED	11.95	☐	
Sodium-24	HE	2.27E+05	4.94E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.146	0.02878	pCi/g	0.0981	Y	0	13	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-200	HE	243.1	305.7	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5181	0.05285	pCi/g	0.08386	0.080	583.2	1	1.649	IDENTIFIED	9.116	☐	
Thorium-228	MU	1.636	0.1229	pCi/g	0.1286	N	238.7	4	1.318	IDENTIFIED	4.573	☐	
Thorium-230	MU	1.099	0.1112	pCi/g	0.1463	N	609.5	4	1.542	IDENTIFIED	8.821	☐	
Thorium-232	MU	1.376	0.1833	pCi/g	0.2972	N	911	3	1.595	IDENTIFIED	11.95	☐	
Tin-126	HE	0.2217	0.06896	pCi/g	0.207	N	87.31	3	1.211	IDENTIFIED	30.49	☐	
Titanium-44	LA	0.3306	0.04376	pCi/g	0.1173	N	0	13	0	FAIL_ABUND	0	☐	
Uranium-234	MU	1.099	0.1112	pCi/g	0.1463	N	609.5	4	1.542	IDENTIFIED	8.821	☐	
Zirconium-97		5.11E+06	1.56E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202041819		23-FEB-10 15:23	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	HE	1.225	0.2407	pCi/g	0.7512	N	0	16	0	FAIL_ABUND	0	☐	
Americium-241	✓	14.05	0.7425	pCi/g	0.6637	0.200	59.42	1	1.055	IDENTIFIED	2.505	☐	
Americium-243	HE	0.3467	0.1109	pCi/g	0.1758	N	76.16	1	2.516	IDENTIFIED	31.67	☐	
Barium-137m		5.046	0.1837	pCi/g	0.1322	N	660.8	2	1.795	IDENTIFIED	2.59	☐	
Bismuth-211		2.171	0.4976	pCi/g	0.716	Y	351.4	4	1.83	IDENTIFIED	22.69	☐	

Bismuth-214		**0.415**	0.1223	pCi/g	**0.3333**	**0.200**	0	16	0	FAIL_ABUND	0	☐
Cadmium-109		**29.85**	2.072	pCi/g	**2.593**	**Y**	87.91	3	1.102	IDENTIFIED	4.938	☐
Cerium-143	HE	**31.11**	9.326	pCi/g	**15.67**	**N**	294.7	1	1.173	IDENTIFIED	28.15	☐
Cesium-137	✓	**5.334**	0.1947	pCi/g	**0.1398**	**0.100**	660.8	2	1.795	IDENTIFIED	2.59	☐
Cobalt-57		**0.2272**	0.03536	pCi/g	**0.07414**	**N**	121.8	1	1.075	IDENTIFIED	15.28	☐
Cobalt-60	✓	**5.819**	0.2769	pCi/g	**0.1083**	**0.100**	1331	1	2.154	IDENTIFIED	3.037	☐
Gross Gamma		**25.09**	2.686	pCi/g	**3.869**	**N**		0				☐
Iodine-123	HE	**223.3**	1276	pCi/g	**0**	**N**	0	16	0	SHORT_HLIF	0	☐
Iodine-133	HE	**34.05**	35.52	pCi/g	**0**	**N**	0	16	0	SHORT_HLIF	0	☐
Iodine-135	HE	**3.06E+08**	3.07E+08	pCi/g	**0**	**N**	0	16	0	SHORT_HLIF	0	☐
Lead-212		**1.136**	0.08385	pCi/g	**0.1705**	**0.100**	238.3	4	1.313	IDENTIFIED	6.445	☐
Lead-214		**0.7552**	0.1742	pCi/g	**0.2496**	**0.100**	351.4	4	1.83	IDENTIFIED	22.69	☐
Neptunium-237		**8.699**	1.082	pCi/g	**0.7857**	**N**	87.91	3	1.102	IDENTIFIED	4.938	☐
Niobium-95m	HE	**0.5286**	0.1288	pCi/g	**0.4242**	**N**	0	16	0	NOT_IDENTI	0	☐
Niobium-97		**8174**	434.1	pCi/g	**0**	**N**	0	16	0	SHORT_HLIF	0	☐
Polonium-212		**1.136**	0.08385	pCi/g	**0.1705**	**N**	238.3	4	1.313	IDENTIFIED	6.445	☐
Polonium-214		**0.7552**	0.1742	pCi/g	**0.2496**	**N**	351.4	4	1.83	IDENTIFIED	22.69	☐
Polonium-216		**1.136**	0.08385	pCi/g	**0.1705**	**N**	238.3	4	1.313	IDENTIFIED	6.445	☐
Polonium-218		**0.7552**	0.1742	pCi/g	**0.2496**	**N**	351.4	4	1.83	IDENTIFIED	22.69	☐
Potassium-40		**0.8922**	0.2696	pCi/g	**0.646**	**1.00**	1460	1	2.221	IDENTIFIED	29.98	☐
Radium-224		**3.725**	1.071	pCi/g	**1.94**	**Y**	241.3	1	2.147	IDENTIFIED	28.61	☐
Radium-226		**0.415**	0.1223	pCi/g	**0.3333**	**Y**	0	16	0	FAIL_ABUND	0	☐
Radium-228		**1.225**	0.2407	pCi/g	**0.7512**	**0.500**	0	16	0	FAIL_ABUND	0	☐
Silver-110m		**1.37**	0.08346	pCi/g	**0.3118**	**N**	0	16	0	NOT_IDENTI	0	☐
Sodium-24	HE	**0.05557**	375.9	pCi/g	**0**	**N**	0	16	0	SHORT_HLIF	0	☐
Thallium-208		**0.3544**	0.07682	pCi/g	**0.194**	**0.080**	0	16	0	FAIL_ABUND	0	☐
Thorium-228		**1.146**	0.08457	pCi/g	**0.172**	**N**	238.3	4	1.313	IDENTIFIED	6.445	☐
Thorium-230	HE	**0.415**	0.1223	pCi/g	**0.3333**	**N**	0	16	0	FAIL_ABUND	0	☐
Thorium-232	HE	**1.225**	0.2407	pCi/g	**0.7512**	**N**	0	16	0	FAIL_ABUND	0	☐
Tin-126		**2.962**	0.2056	pCi/g	**0.2589**	**N**	87.91	3	1.102	IDENTIFIED	4.938	☐
Titanium-44	HE	**0.1574**	0.03779	pCi/g	**0.1293**	**N**	0	16	0	NOT_IDENTI	0	☐
Uranium-234	HE	**0.415**	0.1223	pCi/g	**0.3333**	**N**	0	16	0	FAIL_ABUND	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertanty	Units	DL	RDL
952641	246847001	SAMPLE	23-FEB-10	Potassium-40	37.04	1.914	pCi/g	0.3148	1.00
				Radium-224	4.71	0.7297	pCi/g	0.4556	Y
				Radium-226	1.017	0.1016	pCi/g	0.05895	Y
				Radium-228	1.7	0.1773	pCi/g	0.1213	0.500
				Technetium-99m	2.34E+16	0	pCi/g	0	N
				Thallium-208	0.5395	0.05263	pCi/g	0.03594	0.080
				Thorium-234	0.8435	0.2835	pCi/g	0.4856	2.00
				Zirconium-97	2.76E+06	1.07E+06	pCi/g	0	N
952641	246847002	SAMPLE	23-FEB-10	Bismuth-211	2.504	0.2089	pCi/g	0.1666	Y
				Bismuth-214	0.9565	0.09117	pCi/g	0.05191	0.200
				Cadmium-109	3.656	0.534	pCi/g	0.5743	Y
				Cerium-143	514	97.62	pCi/g	0	N
				Cesium-134	0.08417	0.02632	pCi/g	0.04836	0.100
				Gross Gamma	8.744	1.208	pCi/g	0.9839	N
				Krypton-85	7.233	4.222	pCi/g	6.485	N
				Lead-212	1.377	0.07125	pCi/g	0.04291	0.100
				Lead-214	0.8711	0.07613	pCi/g	0.06187	0.100
				Niobium-97	25520	46680	pCi/g	0	N
				Potassium-40	38.16	1.724	pCi/g	0.3387	1.00
				Radium-224	4.243	0.6569	pCi/g	0.4883	Y
				Radium-226	0.9565	0.09117	pCi/g	0.05191	Y
				Radium-228	1.276	0.1997	pCi/g	0.1075	0.500
				Sodium-24	8.00E+05	4.18E+05	pCi/g	0	N
				Strontium-85	0.03709	0.02165	pCi/g	0.03326	Y
				Thallium-200	412.2	209.8	pCi/g	0	N
				Thallium-208	0.4369	0.04335	pCi/g	0.02809	0.080
				Zirconium-97	5.48E+06	9.99E+05	pCi/g	0	N
952641	1202041817	MB	23-FEB-10	Iodine-123	414.7	344.4	pCi/g	0	N
				Iodine-135	1.44E+08	8.86E+07	pCi/g	0	N
				Radium-228	0.06041	0.03416	pCi/g	0.05905	0.500
				Sodium-24	42.34	149.4	pCi/g	0	N
				Uranium-235	0.1036	0.04881	pCi/g	0.08625	0.500
				Yttrium-88	0.02213	0.00952	pCi/g	0.02	0.100
952641	1202041818	DUP	23-FEB-10	Bismuth-211	3.429	0.3304	pCi/g	0.2319	Y
				Bismuth-214	1.099	0.1112	pCi/g	0.07319	0.200
				Cadmium-109	2.256	0.7017	pCi/g	1.033	Y
				Cerium-143	870.8	159	pCi/g	0	N

BE 2/25/10

BE 2/25/10

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:05:48.38

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837001.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:05:24
Sample ID         : G246837001           Sample quantity  : 1.44800E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.02  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 952641               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	74.78	532	403	0.91	148.46	143	15	7.39E-02	7.1	8.43E-01
2	4	77.08*	833	393	0.90	153.06	143	15	1.16E-01	5.1	
3	2	84.05	67	392	0.88	167.01	162	16	9.36E-03	45.8	2.52E+00
4	2	87.15	287	430	0.85	173.23	162	16	3.98E-02	12.2	
5	6	89.99	124	219	0.84	178.89	177	13	1.73E-02	17.5	2.43E+00
6	6	92.86*	316	541	1.34	184.65	177	13	4.38E-02	14.6	
7	0	185.95*	203	484	1.24	370.96	367	11	2.83E-02	22.8	
8	0	209.51	146	277	1.17	418.13	414	8	2.03E-02	21.3	
9	6	238.65*	1587	198	1.00	476.44	472	16	2.20E-01	2.9	2.39E+00
10	6	241.64*	382	266	1.78	482.43	472	16	5.31E-02	12.7	
11	0	270.88	132	323	1.24	540.95	534	13	1.84E-02	29.6	
12	0	277.76	41	187	1.08	554.72	550	7	5.73E-03	57.6	
13	0	295.25*	454	168	1.10	589.71	586	8	6.31E-02	6.9	
14	0	300.21	81	168	0.96	599.64	596	8	1.13E-02	29.7	
15	0	327.84	97	134	1.14	654.95	652	8	1.34E-02	23.1	
16	0	338.16	357	166	0.95	675.61	671	10	4.95E-02	8.6	
17	0	351.87*	700	182	1.12	703.03	697	11	9.72E-02	5.4	
18	0	463.32	124	130	0.99	926.08	920	12	1.72E-02	20.6	
19	0	510.74*	154	216	1.98	1020.97	1013	18	2.13E-02	25.7	
20	0	583.33*	467	145	1.37	1166.25	1160	14	6.49E-02	7.3	
21	0	609.36*	511	108	1.35	1218.33	1214	10	7.10E-02	5.9	
22	0	728.08*	141	100	1.87	1455.89	1450	16	1.95E-02	17.9	
23	0	769.09	33	108	1.17	1537.95	1533	11	4.62E-03	62.8	
24	0	786.21	64	60	2.09	1572.21	1567	10	8.96E-03	25.7	
25	0	795.27	92	51	1.15	1590.34	1583	13	1.28E-02	19.2	
26	0	860.89	77	47	1.23	1721.64	1717	9	1.08E-02	19.6	
27	0	911.56*	379	57	1.67	1823.03	1817	13	5.26E-02	6.7	
28	4	964.80	74	62	2.31	1929.56	1921	23	1.02E-02	25.8	6.13E-01
29	4	969.27*	213	36	1.80	1938.50	1921	23	2.96E-02	9.1	
30	0	1120.76*	137	62	1.10	2241.60	2236	13	1.91E-02	14.7	
31	0	1409.42	23	20	1.30	2819.10	2814	10	3.13E-03	44.2	
32	0	1461.33*	1811	22	1.83	2922.95	2914	18	2.51E-01	2.4	
33	0	1631.54	33	4	3.07	3263.43	3256	14	4.65E-03	21.0	
34	0	1639.48	12	4	1.33	3279.32	3275	7	1.71E-03	38.2	
35	0	1765.13*	98	8	2.31	3530.65	3523	15	1.36E-02	12.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 14:05:51

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 8-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 12:05:24
Sample ID : G246837001 Sample quantity : 144.80 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA11 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.02 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.591E+01	3.566E+00	4.098E-01	3.543E-02	87.637
CD-109	+	88.03	*	3.010E+00	7.860E-01	1.010E+00	9.574E-02	2.981
SN-126		64.28		2.491E-01	3.583E-01	5.854E-01	8.491E-02	0.425
	+	86.94		1.230E+00	5.922E-01	4.158E-01	1.726E-01	2.958
	+	87.57	*	2.959E-01	7.727E-02	9.957E-02	9.392E-03	2.972
HG-203		70.83		7.080E-01	8.100E-01	1.219E+00	1.596E-01	0.581
		72.87		8.428E-02	4.898E-01	7.157E-01	9.140E-02	0.118
	+	82.60		9.335E-01	8.645E-01	1.355E+00	1.882E-01	0.689
	+	279.20	*	3.705E-02	4.307E-02	5.551E-02	8.671E-03	0.667
TL-208	+	277.35		3.367E-01	3.925E-01	5.130E-01	9.095E-02	0.656
	+	510.84		6.243E-01	3.319E-01	1.897E-01	2.571E-02	3.292
	+	583.14	*	5.406E-01	9.776E-02	4.873E-02	5.262E-03	11.095
	+	860.37		8.363E-01	3.392E-01	3.519E-01	3.666E-02	2.376
BI-211		72.87		4.245E-01	2.466E+00	3.604E+00	2.863E-01	0.118
	+	351.07	*	3.573E+00	6.062E-01	2.708E-01	3.573E-02	13.196
BI-212	+	727.18	*	1.392E+00	5.217E-01	3.722E-01	4.067E-02	3.740
	+	785.46		4.077E+00	2.131E+00	2.732E+00	2.676E-01	1.493
		1620.62		1.072E+00	1.040E+00	1.979E+00	1.662E-01	0.542
PB-212	+	74.81		2.227E+00	4.197E-01	3.846E-01	4.758E-02	5.789
	+	77.11		1.994E+00	2.611E-01	2.205E-01	1.832E-02	9.043
	+	87.30		1.368E+00	3.827E-01	4.614E-01	6.332E-02	2.966
	+	238.63	*	1.770E+00	2.685E-01	7.550E-02	1.057E-02	23.443
	+	300.09		1.404E+00	8.633E-01	9.928E-01	1.591E-01	1.414
PO-212	+	74.81		2.227E+00	4.197E-01	3.846E-01	4.758E-02	5.789
	+	77.11		1.994E+00	2.611E-01	2.205E-01	1.832E-02	9.043
	+	87.30		1.368E+00	3.827E-01	4.614E-01	6.332E-02	2.966
		115.19		1.619E+00	2.706E+00	4.706E+00	3.987E-01	0.344
	+	238.63	*	1.770E+00	2.685E-01	7.550E-02	1.057E-02	23.443
	+	300.09		1.404E+00	8.633E-01	9.928E-01	1.591E-01	1.414
BI-214	+	609.31	*	1.113E+00	1.822E-01	9.737E-02	1.101E-02	11.433
	+	1120.29		1.541E+00	4.837E-01	4.133E-01	4.463E-02	3.730
	+	1764.49		1.500E+00	3.881E-01	2.232E-01	1.839E-02	6.722
PB-214	+	74.81		3.837E+00	6.894E-01	6.628E-01	7.277E-02	5.789
	+	77.11		3.418E+00	5.178E-01	3.779E-01	4.261E-02	9.043

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		2.344E+00	6.383E-01	7.904E-01	9.609E-02	2.966
	+	241.98		2.562E+00	7.490E-01	4.549E-01	6.627E-02	5.631
	+	295.21		1.374E+00	2.930E-01	1.825E-01	2.976E-02	7.526
	+	351.92	*	1.243E+00	2.206E-01	9.440E-02	1.336E-02	13.167
PO-214	+	74.81		3.837E+00	6.894E-01	6.628E-01	7.277E-02	5.789
	+	77.11		3.418E+00	5.178E-01	3.779E-01	4.261E-02	9.043
	+	87.30		2.344E+00	6.383E-01	7.904E-01	9.609E-02	2.966
	+	241.98		2.562E+00	7.490E-01	4.549E-01	6.627E-02	5.631
	+	295.21		1.374E+00	2.930E-01	1.825E-01	2.976E-02	7.526
	+	351.92	*	1.243E+00	2.206E-01	9.440E-02	1.336E-02	13.167
PO-216	+	74.81		2.227E+00	4.197E-01	3.846E-01	4.758E-02	5.789
	+	77.11		1.994E+00	2.611E-01	2.205E-01	1.832E-02	9.043
	+	87.30		1.368E+00	3.827E-01	4.614E-01	6.332E-02	2.966
	+	238.63	*	1.770E+00	2.685E-01	7.550E-02	1.057E-02	23.443
	+	300.09		1.404E+00	8.633E-01	9.928E-01	1.591E-01	1.414
PO-218	+	74.81		3.837E+00	6.894E-01	6.628E-01	7.277E-02	5.789
	+	77.11		3.418E+00	5.178E-01	3.779E-01	4.261E-02	9.043
	+	87.30		2.344E+00	6.383E-01	7.904E-01	9.609E-02	2.966
	+	241.98		2.562E+00	7.490E-01	4.549E-01	6.627E-02	5.631
	+	295.21		1.374E+00	2.930E-01	1.825E-01	2.976E-02	7.526
	+	351.92	*	1.243E+00	2.206E-01	9.440E-02	1.336E-02	13.167
RA-224	+	240.98	*	4.857E+00	1.394E+00	8.596E-01	1.151E-01	5.651
RA-226	+	609.31	*	1.113E+00	1.822E-01	9.737E-02	1.101E-02	11.433
	+	1120.29		1.541E+00	4.837E-01	4.133E-01	4.463E-02	3.730
	+	1764.49		1.500E+00	3.881E-01	2.232E-01	1.839E-02	6.722
AC-228	+	338.32		2.007E+00	9.209E-01	3.077E-01	1.309E-01	6.524
	+	911.07	*	1.935E+00	3.509E-01	1.814E-01	2.209E-02	10.667
	+	969.11		1.918E+00	5.743E-01	3.151E-01	7.468E-02	6.088
RA-228	+	338.32		2.007E+00	9.209E-01	3.077E-01	1.309E-01	6.524
	+	911.07	*	1.935E+00	3.509E-01	1.814E-01	2.209E-02	10.667
	+	969.11		1.918E+00	5.743E-01	3.151E-01	7.468E-02	6.088
TH-228	+	74.81		2.260E+00	3.709E-01	3.904E-01	3.194E-02	5.789
	+	77.11		2.024E+00	2.650E-01	2.238E-01	1.860E-02	9.043
	+	87.30		1.389E+00	3.627E-01	4.683E-01	4.403E-02	2.966
	+	238.63	*	1.797E+00	2.725E-01	7.664E-02	1.073E-02	23.443
	+	300.09		1.425E+00	1.208E+00	1.008E+00	6.099E-01	1.414
TH-230	+	609.31	*	1.113E+00	1.822E-01	9.737E-02	1.101E-02	11.433
	+	1120.29		1.541E+00	4.837E-01	4.133E-01	4.463E-02	3.730
	+	1764.49		1.500E+00	3.880E-01	2.232E-01	1.839E-02	6.722
TH-232	+	338.32		2.007E+00	4.381E-01	3.077E-01	4.149E-02	6.524
	+	911.07	*	1.935E+00	3.509E-01	1.814E-01	2.209E-02	10.667
	+	969.11		1.918E+00	5.743E-01	3.151E-01	7.468E-02	6.088
U-234	+	609.31	*	1.113E+00	1.822E-01	9.737E-02	1.101E-02	11.433
	+	1120.29		1.541E+00	4.837E-01	4.133E-01	4.463E-02	3.730
	+	1764.49		1.500E+00	3.880E-01	2.232E-01	1.839E-02	6.722
NP-237	+	86.50	*	8.688E-01	2.892E-01	2.947E-01	6.671E-02	2.948
		95.87		-8.882E-02	7.939E-01	1.124E+00	2.783E-01	-0.079
AM-243	+	74.67	*	3.610E-01	5.910E-02	6.251E-02	5.058E-03	5.775
	+	86.72		3.258E+01	8.509E+00	1.103E+01	1.029E+00	2.953

Sample ID : G246837001 Acquisition date : 23-FEB-2010 12:05:24

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		-1.880E+00	2.935E+00	4.865E+00	4.115E-01	-0.386
		142.18		-1.272E+01	1.368E+01	2.211E+01	1.972E+00	-0.575
ANH-511	+	511.00	*	1.349E-01	7.081E-02	4.098E-02	4.382E-03	3.291

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.820E-01	2.597E-01	4.530E-01	5.127E-02	0.402
NA-22		1274.54	*	1.086E-02	4.173E-02	6.952E-02	5.709E-03	0.156
NA-24		1368.53	*	-4.932E-01	4.173E-02	Half-Life too short		
AL-26		1129.67		-7.696E-01	1.561E+00	2.452E+00	2.071E-01	-0.314
		1808.65	*	-3.855E-03	2.697E-02	4.329E-02	3.533E-03	-0.089
TI-44		67.85		3.595E-03	3.294E-02	5.231E-02	3.964E-03	0.069
	+	78.38	*	3.679E-01	4.818E-02	5.254E-02	4.429E-03	7.002
SC-46		889.25	*	-5.115E-03	3.391E-02	5.615E-02	5.530E-03	-0.091
	+	1120.51		2.636E-01	8.087E-02	1.226E-01	1.045E-02	2.151
V-48		944.10		4.296E-01	7.467E-01	1.308E+00	1.266E-01	0.328
		983.50	*	-2.254E-02	6.180E-02	9.935E-02	9.424E-03	-0.227
		1312.09		9.162E-03	7.885E-02	1.294E-01	1.067E-02	0.071
CR-51		320.08	*	2.401E-01	3.067E-01	5.122E-01	7.434E-02	0.469
MN-52		744.21		1.351E-01	1.923E-01	3.294E-01	3.200E-02	0.410
		848.13		-2.811E+00	5.992E+00	9.703E+00	9.561E-01	-0.290
		935.52		1.093E-01	2.294E-01	3.973E-01	3.858E-02	0.275
		1246.25		7.699E-02	6.570E+00	1.072E+01	8.748E-01	0.007
		1333.61		-2.967E+00	4.724E+00	7.077E+00	5.849E-01	-0.419
		1434.06	*	-1.384E-01	1.973E-01	2.817E-01	2.360E-02	-0.491
MN-54		834.83	*	2.116E-03	3.111E-02	5.275E-02	5.194E-03	0.040
CO-56		846.75	*	1.530E-02	3.446E-02	6.002E-02	5.913E-03	0.255
		977.42		4.034E-01	2.690E+00	4.534E+00	4.315E-01	0.089
		1037.82		-7.003E-03	2.823E-01	4.665E-01	4.477E-02	-0.015
		1175.09		1.048E+00	2.082E+00	3.552E+00	2.855E-01	0.295
		1238.25		9.545E-02	9.354E-02	1.624E-01	1.367E-02	0.588
		1360.21		-2.319E-01	8.069E-01	1.250E+00	1.038E-01	-0.186
		1771.40		-1.296E-01	2.203E-01	2.571E-01	2.116E-02	-0.504
CO-57		122.06	*	-1.610E-02	1.875E-02	3.066E-02	2.593E-03	-0.525
		136.48		2.666E-02	1.650E-01	2.802E-01	2.632E-02	0.095
CO-58		810.76	*	-2.308E-02	3.353E-02	4.968E-02	4.892E-03	-0.465
FE-59		142.65		-7.673E-01	2.146E+00	3.502E+00	3.127E-01	-0.219
		192.34		-1.473E-02	7.694E-01	1.273E+00	1.909E-01	-0.012
		1099.22	*	-4.062E-02	9.092E-02	1.442E-01	1.355E-02	-0.282
		1291.56		-1.469E-02	1.073E-01	1.717E-01	1.620E-02	-0.086
CO-60		1173.22		1.304E-02	4.286E-02	7.196E-02	5.782E-03	0.181
		1332.49	*	1.504E-03	3.423E-02	5.573E-02	4.605E-03	0.027
ZN-65		1115.52	*	1.921E-02	9.248E-02	1.352E-01	1.160E-02	0.142
GE-68		1077.35	*	6.032E-01	1.180E+00	2.030E+00	1.803E-01	0.297
AS-73		53.44	*	1.975E-04	5.364E-01	8.578E-01	6.441E-02	0.000
AS-74		595.88	*	-1.895E-02	7.752E-02	1.247E-01	1.268E-02	-0.152
		634.78		-4.326E-02	3.012E-01	4.857E-01	4.751E-02	-0.089

Sample ID : G246837001 Acquisition date : 23-FEB-2010 12:05:24

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		66.05		1.925E+00	3.369E+00	5.448E+00	5.177E-01	0.353
		96.73		-2.046E-01	6.653E-01	9.191E-01	1.270E-01	-0.223
		121.11		-8.703E-03	1.019E-01	1.726E-01	1.915E-02	-0.050
		136.00		-4.066E-03	3.109E-02	5.224E-02	4.600E-03	-0.078
		198.60		-5.586E-01	1.490E+00	2.382E+00	2.849E-01	-0.234
		264.65	*	-2.139E-02	4.120E-02	5.701E-02	8.380E-03	-0.375
		279.53		-1.481E-03	1.032E-01	1.484E-01	2.324E-02	-0.010
		303.91		5.211E-01	1.826E+00	2.671E+00	4.441E-01	0.195
		400.65		-2.168E-02	2.122E-01	3.564E-01	4.560E-02	-0.061
BR-77	+	87.88		6.293E+02	1.643E+02	2.588E+02	2.451E+01	2.432
		200.40		-1.391E+01	1.296E+02	2.129E+02	2.408E+01	-0.065
	+	239.00		2.750E+02	3.985E+01	3.453E+01	4.588E+00	7.964
		249.79		-3.501E+01	5.497E+01	8.605E+01	1.193E+01	-0.407
		281.68		-6.225E+00	7.723E+01	1.180E+02	1.820E+01	-0.053
		297.23		8.342E+01	6.510E+01	8.198E+01	1.230E+01	1.018
		303.76		1.611E+01	1.537E+02	2.216E+02	3.280E+01	0.073
		439.47		6.464E+01	1.159E+02	2.011E+02	2.169E+01	0.321
		484.57		3.627E+01	1.743E+02	2.949E+02	3.175E+01	0.123
		520.65	*	-3.287E+00	8.491E+00	1.367E+01	1.456E+00	-0.241
		574.64		1.487E+00	1.548E+02	2.550E+02	2.637E+01	0.006
		578.91		1.143E+01	7.038E+01	1.035E+02	1.067E+01	0.110
		585.48		9.246E+02	2.303E+02	3.914E+02	4.014E+01	2.362
		755.35		4.806E+01	1.512E+02	2.496E+02	2.431E+01	0.193
		817.79		9.762E+01	1.102E+02	1.906E+02	1.874E+01	0.512
SR-82		698.33		1.177E+00	3.119E+01	5.066E+01	4.859E+00	0.023
		776.49	*	-5.437E-01	3.510E-01	4.741E-01	4.637E-02	-1.147
		1395.20		7.282E+00	7.148E+00	1.347E+01	1.124E+00	0.541
RB-83		520.41	*	-2.697E-02	5.888E-02	9.427E-02	1.005E-02	-0.286
		529.64		5.788E-02	9.414E-02	1.621E-01	1.721E-02	0.357
		552.65		5.906E-02	1.692E-01	2.862E-01	3.003E-02	0.206
RB-84		881.50	*	-4.173E-02	6.101E-02	9.624E-02	9.482E-03	-0.434
KR-85		513.99	*	5.442E+00	6.850E+00	1.066E+01	1.139E+00	0.510
SR-85		513.99	*	2.787E-02	3.508E-02	5.461E-02	5.834E-03	0.510
RB-86		1076.63	*	1.437E-01	7.517E-01	1.261E+00	1.121E-01	0.114
Y-88		898.02		7.507E-03	3.612E-02	6.159E-02	6.086E-03	0.122
		1836.01	*	-2.522E-02	3.147E-02	4.384E-02	3.559E-03	-0.575
ZR-88		392.90	*	-1.587E-02	2.342E-02	3.779E-02	4.031E-03	-0.420
Y-91		1204.90	*	-5.949E+00	1.827E+01	2.905E+01	2.352E+00	-0.205
NB-94		702.63	*	2.777E-02	3.091E-02	5.325E-02	5.114E-03	0.521
		871.10		-2.928E-03	3.212E-02	5.360E-02	5.282E-03	-0.055
NB-95		765.79	*	7.385E-03	4.414E-02	6.305E-02	6.155E-03	0.117
NB-95M		235.69	*	1.239E-01	1.124E-01	1.734E-01	2.421E-02	0.715
ZR-95		724.18		2.637E-02	7.869E-02	1.159E-01	1.198E-02	0.228
		756.15	*	3.424E-02	6.523E-02	1.094E-01	1.151E-02	0.313
NB-97		657.90	*	1.210E-02	6.523E-02	Half-Life too short		
		1024.50		2.298E+00	6.523E-02	Half-Life too short		
ZR-97		254.15		5.161E+00	6.523E-02	Half-Life too short		
		355.39		-3.868E-01	6.523E-02	Half-Life too short		
		507.63	*	1.211E+00	6.523E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		602.52		9.483E-01	6.523E-02	Half-Life too short		
		1021.30		1.523E+00	6.523E-02	Half-Life too short		
		1147.95		-1.809E-01	6.523E-02	Half-Life too short		
		1362.66		5.721E-01	6.523E-02	Half-Life too short		
		1750.46		1.372E-01	6.523E-02	Half-Life too short		
MO-99		140.51		4.544E+00	1.976E+01	3.354E+01	9.313E+00	0.136
		181.06		-8.531E+00	1.332E+01	2.025E+01	3.884E+00	-0.421
		366.43		5.857E+01	6.671E+01	1.119E+02	1.356E+01	0.524
		739.58	*	-7.364E+00	1.005E+01	1.499E+01	2.373E+00	-0.491
		778.00		1.807E+00	2.852E+01	4.603E+01	4.504E+00	0.039
TC-99M		140.51	*	4.971E+09	2.852E+01	Half-Life too short		
RH-101		127.23		-2.153E-02	2.605E-02	4.271E-02	3.648E-03	-0.504
		198.01	*	-5.486E-03	2.743E-02	4.427E-02	4.955E-03	-0.124
		325.23		1.129E-01	1.907E-01	2.847E-01	3.995E-02	0.397
RH-102		418.52		1.152E-01	2.262E-01	3.930E-01	4.225E-02	0.293
		475.06	*	-1.880E-02	2.295E-02	3.582E-02	3.862E-03	-0.525
		631.29		1.898E-02	4.738E-02	7.981E-02	7.837E-03	0.238
		697.49		4.006E-02	7.184E-02	1.211E-01	1.161E-02	0.331
		766.84		1.148E-01	1.158E-01	1.784E-01	1.742E-02	0.643
		1046.59		7.344E-02	1.094E-01	1.907E-01	1.736E-02	0.385
		1112.84		1.712E-02	2.181E-01	3.519E-01	3.025E-02	0.049
RU-103		497.08	*	9.578E-03	3.452E-02	5.849E-02	9.091E-03	0.164
	+	610.33		1.200E+01	2.531E+00	2.662E+00	4.648E-01	4.506
RH-106	+	511.85		6.734E-01	3.536E-01	3.870E-01	4.137E-02	1.740
		621.84	*	-1.343E-01	2.721E-01	4.257E-01	6.058E-02	-0.315
		1050.47		-3.065E-01	2.167E+00	3.542E+00	3.215E-01	-0.087
RU-106	+	511.85		6.734E-01	3.536E-01	3.870E-01	4.137E-02	1.740
		621.84	*	-1.343E-01	2.717E-01	4.257E-01	4.223E-02	-0.315
		1050.47		-3.065E-01	2.167E+00	3.542E+00	3.215E-01	-0.087
AG-108M		433.93	*	-4.512E-03	2.672E-02	4.441E-02	4.910E-03	-0.102
		614.37		-1.663E-02	3.903E-02	5.339E-02	5.494E-03	-0.311
		722.95		-5.338E-03	3.775E-02	5.227E-02	5.209E-03	-0.102
AG-110M		657.75	*	-1.159E-04	3.276E-02	5.331E-02	5.195E-03	-0.002
		677.61		8.236E-02	2.704E-01	4.499E-01	4.383E-02	0.183
		706.67		-7.425E-02	1.939E-01	3.040E-01	2.988E-02	-0.244
		763.93		1.073E-01	1.560E-01	2.367E-01	2.361E-02	0.454
		884.67		-1.783E-02	4.396E-02	7.121E-02	7.189E-03	-0.250
		937.48		-1.965E-02	9.417E-02	1.544E-01	1.540E-02	-0.127
		1384.27		3.693E-02	1.471E-01	2.447E-01	2.100E-02	0.151
IN-111		171.28		2.071E-01	7.472E-01	1.260E+00	1.254E-01	0.164
		245.39	*	-2.051E-01	9.019E-01	1.289E+00	1.757E-01	-0.159
IN-113M		391.69	*	-1.112E-02	3.445E-02	5.711E-02	6.212E-03	-0.195
SN-113		391.69	*	-1.112E-02	3.445E-02	5.711E-02	6.212E-03	-0.195
IN-114M		190.27	*	-2.896E-02	1.652E-01	2.426E-01	2.625E-02	-0.119
CD-115		260.90		7.755E+01	1.046E+02	1.757E+02	2.542E+01	0.441
		492.35		6.070E+00	3.006E+01	5.073E+01	5.453E+00	0.120
		527.90	*	-6.671E+00	9.240E+00	1.446E+01	1.537E+00	-0.461
SN-117M		156.02		-1.428E+00	1.840E+00	2.980E+00	2.790E-01	-0.479
		158.56	*	-1.790E-02	4.417E-02	7.269E-02	6.869E-03	-0.246

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-122		563.90	*	1.197E+00	1.740E+00	3.000E+00	3.125E-01	0.399
		692.80		-6.818E+00	3.775E+01	6.028E+01	5.770E+00	-0.113
I-123		159.00	*	-2.725E+00	3.775E+01	Half-Life too short		
		528.96		4.205E+01	3.775E+01	Half-Life too short		
TE-123M		159.00	*	-1.552E-02	2.276E-02	3.695E-02	3.515E-03	-0.420
I-124		602.71	*	9.242E-02	5.628E-01	9.337E-01	9.436E-02	0.099
		722.78		-5.962E-01	3.867E+00	5.344E+00	5.164E-01	-0.112
		1325.50		-1.692E+01	2.850E+01	4.253E+01	3.512E+00	-0.398
		1376.25		3.424E+01	2.761E+01	5.044E+01	4.198E+00	0.679
		1509.49		1.332E+01	1.393E+01	2.534E+01	2.132E+00	0.526
		1691.02		3.664E-01	2.773E+00	4.717E+00	3.933E-01	0.078
SB-124		602.71		5.466E-03	3.329E-02	5.522E-02	5.582E-03	0.099
		645.85		-2.161E-01	4.612E-01	7.231E-01	7.318E-02	-0.299
		709.31		4.268E-01	2.476E+00	4.061E+00	3.909E-01	0.105
		713.82		-2.273E-01	1.450E+00	2.312E+00	2.956E-01	-0.098
		722.78		-5.111E-02	3.315E-01	4.582E-01	4.504E-02	-0.112
	+	968.20		1.972E+01	4.071E+00	6.850E+00	6.550E-01	2.880
		1045.16		4.394E-01	2.450E+00	4.112E+00	3.748E-01	0.107
		1325.50		-1.549E+00	2.610E+00	3.894E+00	3.216E-01	-0.398
		1368.21		-9.628E-01	1.406E+00	2.024E+00	2.688E-01	-0.476
		1436.60		2.319E+00	3.068E+00	5.471E+00	4.585E-01	0.424
		1691.02	*	7.409E-03	5.608E-02	9.539E-02	8.290E-03	0.078
SB-125		427.89	*	3.159E-03	7.702E-02	1.299E-01	1.417E-02	0.024
	+	463.38		9.830E-01	4.201E-01	5.027E-01	5.699E-02	1.956
		600.56		-7.787E-02	1.585E-01	2.501E-01	2.669E-02	-0.311
		635.90		-6.083E-02	2.331E-01	3.721E-01	3.866E-02	-0.163
TE-125M		109.28	*	-4.042E-01	6.821E+00	1.162E+01	1.193E+00	-0.035
I-126		388.63		1.547E-01	1.676E-01	2.973E-01	3.225E-02	0.520
		666.33	*	3.663E-02	1.666E-01	2.753E-01	2.610E-02	0.133
		753.82		1.163E+00	1.362E+00	2.336E+00	2.275E-01	0.498
SB-126		223.80		4.289E-01	3.408E+00	5.620E+00	7.019E-01	0.076
	+	278.60		2.212E+00	2.571E+00	3.591E+00	5.547E-01	0.616
	+	296.50		1.359E+01	2.771E+00	3.153E+00	4.737E-01	4.309
		414.70		-3.906E-02	6.132E-02	9.904E-02	1.064E-02	-0.394
		415.30		-6.956E-01	4.910E+00	8.203E+00	8.811E-01	-0.085
		555.20		-1.366E+00	3.270E+00	5.213E+00	5.460E-01	-0.262
		573.80		-1.356E-01	8.230E-01	1.336E+00	1.383E-01	-0.101
		593.00		-4.795E-02	7.420E-01	1.211E+00	1.235E-01	-0.040
		656.30		4.226E+00	3.029E+00	5.401E+00	5.147E-01	0.782
		666.33		1.530E-02	6.959E-02	1.150E-01	1.090E-02	0.133
		675.00		-1.020E+00	1.828E+00	2.831E+00	2.693E-01	-0.360
		695.00		2.975E-03	7.184E-02	1.168E-01	1.119E-02	0.025
		697.00		1.484E-01	2.451E-01	4.146E-01	3.975E-02	0.358
		720.50	*	-3.948E-02	1.194E-01	1.869E-01	1.805E-02	-0.211
		856.80		1.133E-01	4.176E-01	6.330E-01	6.238E-02	0.179
		989.30		7.821E-01	1.144E+00	2.008E+00	1.898E-01	0.390
		1034.80		-2.995E+00	8.275E+00	1.327E+01	1.218E+00	-0.226
		1213.00		-8.631E-01	4.804E+00	7.740E+00	6.276E-01	-0.112
SB-127		61.10		-5.572E+01	3.888E+01	5.738E+01	5.772E+00	-0.971

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.40		2.551E+00	3.834E+00	6.184E+00	2.687E+00	0.413
		290.80		-1.758E+00	1.848E+01	2.630E+01	4.401E+00	-0.067
		411.60		9.114E-01	1.037E+01	1.758E+01	2.980E+00	0.052
		444.90		-3.629E-01	7.888E+00	1.319E+01	1.859E+00	-0.028
		473.00		-3.137E-01	1.253E+00	2.052E+00	2.950E-01	-0.153
		543.00		-2.874E+00	1.353E+01	2.198E+01	3.429E+00	-0.131
		603.60		2.469E+00	1.033E+01	1.600E+01	2.167E+00	0.154
		685.20	*	1.123E+00	1.206E+00	2.088E+00	2.520E-01	0.538
		698.50		1.025E+00	1.369E+01	2.230E+01	3.645E+00	0.046
		722.20		-1.142E+00	2.639E+01	3.702E+01	4.424E+00	-0.031
		783.80		3.919E+00	3.807E+00	5.889E+00	7.790E-01	0.666
XE-127		57.60		2.165E+00	4.016E+00	6.546E+00	4.712E-01	0.331
		145.22		4.009E-01	5.617E-01	9.532E-01	8.586E-02	0.421
		172.10		-7.800E-03	9.386E-02	1.558E-01	1.556E-02	-0.050
		202.84	*	3.684E-03	3.800E-02	6.296E-02	7.195E-03	0.059
		374.96		-2.281E-01	1.707E-01	2.385E-01	2.777E-02	-0.957
I-131		80.18		-1.107E+00	4.098E+00	5.071E+00	4.393E-01	-0.218
		284.30		-4.491E-01	1.246E+00	1.963E+00	3.064E-01	-0.229
		364.48	*	-2.778E-02	9.487E-02	1.468E-01	1.842E-02	-0.189
		636.97		-1.748E-01	1.296E+00	2.092E+00	2.130E-01	-0.084
		722.89		-9.185E-01	6.295E+00	8.710E+00	8.458E-01	-0.105
TE-132		49.72		-9.592E-01	1.094E+01	1.748E+01	1.800E+00	-0.055
		111.76		8.428E+00	2.115E+01	3.659E+01	3.928E+00	0.230
		116.30		1.850E+01	2.034E+01	3.565E+01	3.815E+00	0.519
		228.16	*	1.773E-01	5.488E-01	9.114E-01	1.665E-01	0.195
BA-133		53.15		9.935E-01	2.285E+00	3.725E+00	2.808E-01	0.267
		79.62		1.847E-01	1.119E+00	1.427E+00	2.167E-01	0.129
		81.00		-3.494E-02	8.823E-02	1.079E-01	1.718E-02	-0.324
	+	276.40		3.328E-01	3.887E-01	5.668E-01	1.089E-01	0.587
		302.84		2.310E-02	1.272E-01	1.845E-01	3.312E-02	0.125
		356.01	*	2.927E-02	3.879E-02	5.821E-02	9.388E-03	0.503
		383.85		-2.693E-01	2.363E-01	3.660E-01	5.285E-02	-0.736
I-133	+	510.53		1.253E+00	2.363E-01	Half-Life too short		
		529.87	*	3.191E-03	2.363E-01	Half-Life too short		
		706.58		-1.387E-01	2.363E-01	Half-Life too short		
		856.28		-5.290E-02	2.363E-01	Half-Life too short		
		875.33		1.445E-01	2.363E-01	Half-Life too short		
		1236.41		2.961E-01	2.363E-01	Half-Life too short		
		1298.22		-8.907E-02	2.363E-01	Half-Life too short		
CS-134		475.35		-1.346E+00	1.500E+00	2.325E+00	2.506E-01	-0.579
		563.23		2.535E-01	3.151E-01	5.469E-01	5.737E-02	0.464
		569.32		-7.511E-02	1.743E-01	2.761E-01	2.893E-02	-0.272
		604.70		6.570E-03	3.255E-02	4.771E-02	4.822E-03	0.138
	+	795.84	*	1.523E-01	6.051E-02	8.215E-02	8.104E-03	1.855
		801.93		1.934E-01	3.465E-01	5.633E-01	5.554E-02	0.343
		1038.57		1.319E-01	3.596E+00	5.974E+00	5.471E-01	0.022
		1167.94		-1.187E-01	2.300E+00	3.753E+00	3.035E-01	-0.032
		1365.15		4.524E-01	9.138E-01	1.586E+00	1.382E-01	0.285
CS-135		268.24	*	1.144E-01	1.479E-01	2.238E-01	3.511E-02	0.511

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-135		288.45		-9.913E+09	1.479E-01	Half-Life too short		
		417.63		6.288E+09	1.479E-01	Half-Life too short		
		546.56		-2.116E+09	1.479E-01	Half-Life too short		
		836.80		1.630E+09	1.479E-01	Half-Life too short		
		1038.76		-2.992E+08	1.479E-01	Half-Life too short		
		1124.00		2.429E+10	1.479E-01	Half-Life too short		
		1131.51		9.608E+08	1.479E-01	Half-Life too short		
		1260.41	*	-2.160E+08	1.479E-01	Half-Life too short		
		1457.56		1.362E+11	1.479E-01	Half-Life too short		
		1678.03		2.185E+09	1.479E-01	Half-Life too short		
		1706.46		1.008E+10	1.479E-01	Half-Life too short		
		1791.20		1.200E+09	1.479E-01	Half-Life too short		
CS-136		66.91		1.997E-01	5.421E-01	8.692E-01	1.291E-01	0.230
	+	86.29		3.838E+00	1.067E+00	1.568E+00	2.085E-01	2.448
		153.22		7.822E-01	5.415E-01	9.478E-01	9.684E-02	0.825
		163.89		-3.333E-01	8.774E-01	1.425E+00	1.508E-01	-0.234
		176.55		1.277E-01	2.786E-01	4.726E-01	5.013E-02	0.270
		273.65		-2.851E-02	5.199E-01	5.859E-01	9.083E-02	-0.049
		340.57		1.072E-01	1.156E-01	1.750E-01	2.371E-02	0.613
		818.51		3.558E-02	6.425E-02	1.080E-01	1.063E-02	0.330
		1048.07	*	2.385E-02	1.049E-01	1.768E-01	1.669E-02	0.135
		1235.34		-3.290E-01	6.185E-01	9.690E-01	1.115E-01	-0.340
BA-137M		661.65	*	-1.765E-02	3.309E-02	5.154E-02	4.877E-03	-0.342
CS-137		661.65	*	-1.866E-02	3.498E-02	5.449E-02	5.164E-03	-0.342
CE-139		165.85	*	1.635E-03	2.361E-02	3.955E-02	3.843E-03	0.041
BA-140		162.64		1.530E-01	6.092E-01	1.017E+00	1.022E-01	0.150
		304.84		-6.791E-02	1.061E+00	1.612E+00	4.913E-01	-0.042
		423.70		-1.131E+00	1.539E+00	2.386E+00	7.887E-01	-0.474
		537.32	*	1.282E-02	2.231E-01	3.705E-01	1.249E-01	0.035
LA-140	+	328.77		6.672E-01	3.219E-01	4.673E-01	6.633E-02	1.428
		432.53		1.140E-01	1.690E+00	2.853E+00	3.171E-01	0.040
		487.03		5.100E-02	1.133E-01	1.945E-01	2.177E-02	0.262
		751.79		-4.882E-01	1.634E+00	2.564E+00	2.707E-01	-0.190
		815.85		-5.500E-02	2.823E-01	4.424E-01	4.739E-02	-0.124
		867.82		9.865E-01	1.202E+00	2.146E+00	2.201E-01	0.460
		919.63		-1.161E+00	2.388E+00	3.816E+00	4.426E-01	-0.304
		925.24		3.807E-01	9.943E-01	1.715E+00	1.755E-01	0.222
		1596.49	*	-6.300E-02	7.221E-02	1.043E-01	8.767E-03	-0.604
CE-141		145.44	*	2.607E-02	4.993E-02	8.560E-02	7.845E-03	0.305
CE-143		57.37		2.394E-04	4.993E-02	Half-Life too short		
		231.56		-1.130E-03	4.993E-02	Half-Life too short		
		293.26	*	3.552E-04	4.993E-02	Half-Life too short		
	+	350.59		2.676E-02	4.993E-02	Half-Life too short		
		490.36		-1.090E-03	4.993E-02	Half-Life too short		
		664.57		1.029E-03	4.993E-02	Half-Life too short		
		721.93		-2.639E-04	4.993E-02	Half-Life too short		
CE-144		80.11		-4.771E-01	1.905E+00	2.361E+00	2.031E-01	-0.202
		133.54	*	-1.402E-01	1.642E-01	2.660E-01	4.151E-02	-0.527
PM-144		476.78		2.479E-02	5.278E-02	9.094E-02	1.040E-02	0.273

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		618.01		1.404E-02	2.795E-02	4.742E-02	4.821E-03	0.296
		696.49	*	9.607E-03	3.187E-02	5.280E-02	5.062E-03	0.182
		778.57		-4.740E-01	2.024E+00	3.177E+00	3.109E-01	-0.149
PR-144		696.49	*	6.509E-01	2.159E+00	3.577E+00	3.429E-01	0.182
		1489.15		-1.602E+00	9.006E+00	1.469E+01	1.236E+00	-0.109
PM-146		453.90	*	1.327E-02	3.656E-02	6.193E-02	7.765E-03	0.214
		633.02		3.471E-01	1.215E+00	2.018E+00	7.600E-01	0.172
		735.90		8.314E-02	1.408E-01	2.104E-01	6.091E-02	0.395
		747.13		-6.148E-02	7.779E-02	1.148E-01	1.693E-02	-0.535
ND-147	+	91.11		4.291E-01	1.561E-01	3.506E-01	3.475E-02	1.224
		319.41		-8.145E-03	2.738E+00	4.377E+00	6.241E-01	-0.002
		439.89		2.472E+00	4.888E+00	8.455E+00	9.122E-01	0.292
		531.02	*	3.184E-01	5.000E-01	8.595E-01	1.391E-01	0.370
PM-149		285.90	*	4.770E+01	7.286E+01	1.211E+02	2.427E+01	0.394
EU-152		121.78		-4.088E-02	5.523E-02	9.079E-02	8.881E-03	-0.450
		244.69		-1.703E-01	2.809E-01	3.884E-01	5.278E-02	-0.438
		344.27	*	-5.371E-02	8.186E-02	1.237E-01	1.677E-02	-0.434
		443.98		-2.964E-01	7.977E-01	1.305E+00	1.408E-01	-0.227
		778.89		2.943E-02	2.313E-01	3.755E-01	3.674E-02	0.078
		867.32		5.060E-01	7.511E-01	1.299E+00	1.280E-01	0.389
	+	964.01		7.611E-01	3.995E-01	5.404E-01	5.178E-02	1.408
		1085.78		-4.515E-02	3.598E-01	5.867E-01	5.173E-02	-0.077
		1112.02		2.455E-01	2.990E-01	5.240E-01	4.507E-02	0.468
	+	1407.95		2.243E-01	1.992E-01	3.192E-01	2.668E-02	0.703
GD-153		69.67		-8.177E-03	1.286E+00	1.870E+00	1.440E-01	-0.004
	+	83.37		1.257E+01	1.157E+01	1.777E+01	1.590E+00	0.708
		97.43	*	-3.132E-02	7.054E-02	9.671E-02	8.591E-03	-0.324
		103.18		-6.769E-02	7.949E-02	1.316E-01	1.142E-02	-0.514
EU-154		123.07		-1.856E-02	3.874E-02	6.442E-02	7.246E-03	-0.288
		247.94		2.118E-01	2.976E-01	5.000E-01	7.855E-02	0.424
		591.81		-3.181E-01	5.128E-01	7.960E-01	1.026E-01	-0.400
		723.30		1.707E-02	1.503E-01	2.152E-01	2.256E-02	0.079
		756.87		3.196E-01	6.966E-01	1.163E+00	1.489E-01	0.275
		873.19		4.408E-02	2.868E-01	4.875E-01	6.407E-02	0.090
		996.32		-2.354E-01	3.094E-01	4.714E-01	8.564E-02	-0.499
		1004.76		-1.662E-01	2.043E-01	3.143E-01	3.836E-02	-0.529
		1274.45	*	3.322E-02	1.169E-01	1.950E-01	2.145E-02	0.170
EU-155		48.70		-4.512E-01	1.426E+00	2.254E+00	1.823E-01	-0.200
		60.01		-3.273E+00	3.314E+00	5.030E+00	3.589E-01	-0.651
	+	86.54		3.563E-01	9.316E-02	1.521E-01	1.428E-02	2.343
		105.31	*	1.592E-01	8.277E-02	1.490E-01	1.300E-02	1.069
TB-160	+	86.79		9.508E-01	2.483E-01	4.075E-01	3.806E-02	2.333
		197.04		1.180E-01	4.579E-01	7.539E-01	8.402E-02	0.156
		215.65		1.902E-01	6.214E-01	1.035E+00	1.249E-01	0.184
		298.57		5.190E-02	1.369E-01	1.604E-01	2.400E-02	0.324
		879.36	*	-3.543E-02	1.192E-01	1.949E-01	1.920E-02	-0.182
		962.29		5.512E-01	5.178E-01	8.341E-01	8.000E-02	0.661
	+	966.15		5.220E-01	2.740E-01	4.103E-01	3.928E-02	1.272
		1177.93		1.107E-02	3.306E-01	5.431E-01	4.368E-02	0.020

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		1271.85		5.521E-01	6.995E-01	1.182E+00	9.695E-02	0.467
HO-166M		80.57		-1.005E-01	2.441E-01	2.988E-01	2.584E-02	-0.336
		184.41		4.555E-02	3.248E-02	5.237E-02	5.522E-03	0.870
		280.46		1.099E-01	7.630E-02	1.194E-01	1.844E-02	0.921
		410.95		1.519E-01	2.166E-01	3.783E-01	4.059E-02	0.401
		711.68	*	7.065E-03	5.357E-02	8.758E-02	8.435E-03	0.081
		752.31		-7.406E-04	2.655E-01	4.272E-01	4.158E-02	-0.002
		810.29		-2.114E-02	5.025E-02	7.682E-02	7.549E-03	-0.275
TM-171		51.35		4.477E-01	1.881E+01	3.017E+01	2.333E+00	0.015
		52.39		5.422E+00	9.851E+00	1.615E+01	1.230E+00	0.336
		59.40		6.788E+00	1.734E+01	2.805E+01	1.996E+00	0.242
		66.72	*	6.755E+00	1.977E+01	3.170E+01	2.379E+00	0.213
LU-176	+	88.36		7.017E-01	1.833E-01	2.656E-01	2.511E-02	2.642
		201.83		1.930E-02	2.277E-02	3.885E-02	4.421E-03	0.497
		306.84	*	-1.328E-02	2.083E-02	3.189E-02	4.687E-03	-0.417
		401.10		3.794E+00	5.566E+00	9.752E+00	1.043E+00	0.389
LU-177		112.95		-6.106E-01	1.191E+00	1.989E+00	1.689E-01	-0.307
	+	208.36	*	2.862E+00	1.267E+00	1.629E+00	1.907E-01	1.757
LU-177M		52.97		4.640E-01	1.033E+00	1.685E+00	1.273E-01	0.275
		54.07		-4.037E-02	5.531E-01	8.812E-01	6.566E-02	-0.046
		61.30		-2.497E+00	1.074E+00	1.518E+00	1.093E-01	-1.645
		121.62		-1.688E-01	2.845E-01	4.713E-01	3.982E-02	-0.358
		147.16		1.052E-01	5.058E-01	8.574E-01	7.775E-02	0.123
		171.86		-4.813E-02	3.781E-01	6.265E-01	6.250E-02	-0.077
		218.09		-3.682E-02	7.077E-01	1.159E+00	1.414E-01	-0.032
		268.79		9.753E-01	7.163E-01	1.214E+00	1.810E-01	0.803
		319.02		1.931E-03	2.150E-01	3.440E-01	4.910E-02	0.006
		367.43		1.367E-02	7.500E-01	1.188E+00	1.433E-01	0.012
		413.65	*	-1.756E-01	1.504E-01	2.337E-01	2.509E-02	-0.752
HF-181		56.28		-5.102E-01	6.284E-01	9.644E-01	7.019E-02	-0.529
		57.53		1.651E-01	3.372E-01	5.487E-01	3.951E-02	0.301
		65.20		-1.568E+00	7.210E-01	1.030E+00	7.637E-02	-1.522
		133.02		-4.478E-03	5.216E-02	8.792E-02	7.622E-03	-0.051
		136.25		1.552E-01	3.577E-01	6.138E-01	5.371E-02	0.253
		345.85		5.922E-03	1.650E-01	2.501E-01	3.287E-02	0.024
		482.03	*	-4.066E-02	3.445E-02	5.191E-02	5.591E-03	-0.783
W-181		56.28		-1.997E-01	2.463E-01	3.780E-01	2.751E-02	-0.528
		57.53		6.454E-02	1.323E-01	2.152E-01	1.550E-02	0.300
		65.20	*	-6.102E-01	2.805E-01	4.009E-01	2.972E-02	-1.522
TA-182		67.75		7.202E-03	7.850E-02	1.246E-01	9.431E-03	0.058
		100.10		6.779E-02	1.301E-01	2.270E-01	1.992E-02	0.299
		152.43		1.185E-01	2.701E-01	4.606E-01	4.256E-02	0.257
		222.10		-1.228E-01	2.872E-01	4.607E-01	5.714E-02	-0.266
		1001.68		2.514E+00	1.894E+00	3.448E+00	3.236E-01	0.729
	+	1121.28		7.282E-01	2.234E-01	3.364E-01	2.866E-02	2.165
		1189.05		9.659E-02	3.072E-01	5.150E-01	4.153E-02	0.188
		1221.42	*	-1.039E-01	1.945E-01	3.037E-01	2.467E-02	-0.342
		1230.97		-6.518E-02	4.862E-01	7.852E-01	6.391E-02	-0.083
RE-183		57.98		9.258E-02	1.319E-01	2.162E-01	1.552E-02	0.428

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		59.32		3.032E-02	7.132E-02	1.156E-01	8.224E-03	0.262
		67.20		-1.814E-02	1.432E-01	2.254E-01	1.698E-02	-0.080
		162.32	*	7.816E-02	8.944E-02	1.525E-01	1.462E-02	0.512
	+	208.81		2.600E+00	1.151E+00	1.527E+00	1.791E-01	1.703
		291.72		-1.577E-02	8.352E-01	1.196E+00	1.813E-01	-0.013
RE-184		57.98		3.414E-01	4.862E-01	7.973E-01	5.723E-02	0.428
		59.32		1.117E-01	2.628E-01	4.258E-01	3.030E-02	0.262
		67.20		-6.686E-02	5.279E-01	8.308E-01	6.260E-02	-0.080
		161.27		2.296E-02	2.836E-01	4.760E-01	4.544E-02	0.048
		216.55		2.066E-01	2.210E-01	3.763E-01	4.560E-02	0.549
		252.85	*	9.901E-03	2.048E-01	3.339E-01	4.685E-02	0.030
		318.01		-1.051E-01	3.820E-01	5.998E-01	8.581E-02	-0.175
		792.07		-7.608E-02	9.922E-01	1.271E+00	1.247E-01	-0.060
		903.28		4.151E-01	8.794E-01	1.528E+00	1.502E-01	0.272
		920.93		-5.183E-02	3.906E-01	6.459E-01	6.308E-02	-0.080
OS-185		59.72		-1.065E-01	1.959E-01	3.041E-01	2.166E-02	-0.350
		61.14		-1.603E-01	1.122E-01	1.666E-01	1.198E-02	-0.962
		69.30		-1.274E-01	2.142E-01	3.300E-01	2.533E-02	-0.386
		592.07		-9.886E-01	2.058E+00	3.239E+00	3.304E-01	-0.305
		646.12	*	-9.512E-03	3.849E-02	6.149E-02	5.935E-03	-0.155
		717.42		4.147E-01	7.589E-01	1.283E+00	1.238E-01	0.323
		874.81		5.042E-01	5.523E-01	9.878E-01	9.734E-02	0.510
		880.27		-7.882E-01	6.864E-01	1.030E+00	1.015E-01	-0.765
RE-188		155.03	*	-1.362E-02	1.434E-01	2.395E-01	2.234E-02	-0.057
		477.96		2.395E+00	2.506E+00	4.432E+00	4.776E-01	0.540
		633.10		6.547E-01	2.436E+00	4.062E+00	3.981E-01	0.161
W-188		63.58		1.964E+01	3.823E+01	6.227E+01	4.558E+00	0.315
		227.08		-2.115E+00	1.082E+01	1.755E+01	2.222E+00	-0.121
		290.67	*	-1.277E+00	6.529E+00	9.208E+00	1.399E+00	-0.139
IR-192	+	295.96		1.046E+00	2.137E-01	2.600E-01	3.920E-02	4.024
		308.46		1.296E-02	8.181E-02	1.324E-01	1.943E-02	0.098
		316.51	*	-1.421E-03	2.898E-02	4.624E-02	6.646E-03	-0.031
		468.07		-1.805E-02	6.048E-02	8.636E-02	9.749E-03	-0.209
		604.41		-3.227E-02	4.470E-01	6.374E-01	8.947E-02	-0.051
		612.46		-3.483E-01	7.077E-01	9.623E-01	1.072E-01	-0.362
AU-195		65.12		-2.777E-01	1.296E-01	1.855E-01	1.374E-02	-1.497
		66.83		2.337E-02	6.539E-02	1.049E-01	7.881E-03	0.223
	+	75.70		1.168E+00	1.912E-01	3.203E-01	2.620E-02	3.646
		98.88	*	7.221E-02	1.683E-01	2.868E-01	2.530E-02	0.252
		129.76		3.798E+00	2.452E+00	4.274E+00	3.673E-01	0.889
TL-200		367.94	*	-1.441E-04	2.452E+00	Half-Life too short		
		579.30		-1.189E-04	2.452E+00	Half-Life too short		
		828.27		-8.996E-05	2.452E+00	Half-Life too short		
		1205.75		-4.319E-04	2.452E+00	Half-Life too short		
TL-201		68.90		-2.796E+00	3.405E+00	5.192E+00	3.971E-01	-0.539
		70.82		1.774E+00	2.026E+00	3.061E+00	2.383E-01	0.580
		80.30		-1.336E+00	4.392E+00	5.421E+00	4.673E-01	-0.246
		135.34		-2.254E-01	1.926E+01	3.252E+01	2.839E+00	-0.007
		167.43	*	-9.789E-01	5.200E+00	8.606E+00	8.419E-01	-0.114

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TL-202		68.90		-2.564E-01	3.122E-01	4.761E-01	3.641E-02	-0.539
		70.82		1.622E-01	1.852E-01	2.799E-01	2.179E-02	0.580
		80.30		-1.222E-01	4.018E-01	4.958E-01	4.274E-02	-0.246
		439.56	*	3.285E-02	5.767E-02	1.001E-01	1.080E-02	0.328
BI-207		72.80		7.685E-03	1.435E-01	2.086E-01	1.655E-02	0.037
	+	74.97		6.480E-01	1.061E-01	1.712E-01	1.390E-02	3.785
	+	84.90		1.627E-01	1.496E-01	2.315E-01	2.111E-02	0.703
		569.67		-9.564E-03	2.691E-02	4.287E-02	4.449E-03	-0.223
		1063.62	*	6.551E-03	5.057E-02	8.447E-02	7.588E-03	0.078
		1770.23		-1.838E-01	4.493E-01	5.636E-01	4.639E-02	-0.326
TL-207		81.07		-7.558E-02	1.945E-01	2.384E-01	2.074E-02	-0.317
	+	83.78		1.073E-01	9.866E-02	1.532E-01	1.377E-02	0.700
		94.90		1.138E-01	1.926E-01	2.833E-01	2.552E-02	0.402
		122.32		-1.613E+00	1.304E+00	2.088E+00	1.900E-01	-0.772
		144.24		3.694E-01	5.457E-01	9.249E-01	9.216E-02	0.399
		154.21		2.517E-01	3.277E-01	5.639E-01	5.696E-02	0.446
	+	269.46		5.295E-01	3.238E-01	3.037E-01	4.569E-02	1.743
		323.87	*	4.812E-02	6.097E-01	8.722E-01	1.824E-01	0.055
	+	338.28		8.383E+00	1.972E+00	2.348E+00	3.780E-01	3.570
		445.03		-5.129E-02	1.878E+00	3.145E+00	4.315E-01	-0.016
PO-209		260.50		7.480E+00	7.964E+00	1.347E+01	1.946E+00	0.555
		262.80		-1.030E+01	2.205E+01	3.472E+01	5.060E+00	-0.297
		896.60	*	3.430E+00	6.599E+00	1.152E+01	1.134E+00	0.298
BI-210		46.50	*	-8.522E-01	2.072E+00	3.267E+00	3.042E-01	-0.261
PB-210		46.50	*	-8.522E-01	2.072E+00	3.267E+00	3.042E-01	-0.261
PO-210		46.50	*	-8.522E-01	2.072E+00	3.267E+00	2.754E-01	-0.261
PB-211		404.84	*	-6.295E-01	8.809E-01	1.266E+00	7.974E-01	-0.497
		427.08		5.229E-01	1.743E+00	2.936E+00	1.834E+00	0.178
		831.96		-5.625E-01	1.142E+00	1.647E+00	1.035E+00	-0.342
PO-215		81.07		-7.558E-02	1.945E-01	2.384E-01	2.074E-02	-0.317
	+	83.78		1.073E-01	9.866E-02	1.532E-01	1.377E-02	0.700
		94.90		1.138E-01	1.926E-01	2.833E-01	2.552E-02	0.402
		122.32		-1.613E+00	1.304E+00	2.088E+00	1.900E-01	-0.772
		144.24		3.694E-01	5.457E-01	9.249E-01	9.216E-02	0.399
		154.21		2.517E-01	3.277E-01	5.639E-01	5.696E-02	0.446
	+	269.46		5.295E-01	3.238E-01	3.037E-01	4.569E-02	1.743
		323.87	*	4.812E-02	6.097E-01	8.722E-01	1.824E-01	0.055
	+	338.28		8.383E+00	1.972E+00	2.348E+00	3.780E-01	3.570
		445.03		-5.129E-02	1.878E+00	3.145E+00	4.315E-01	-0.016
RN-219	+	271.23		6.793E-01	4.170E-01	3.949E-01	6.346E-02	1.720
		401.81	*	3.793E-01	3.412E-01	6.041E-01	9.852E-02	0.628
RN-220		549.76	*	3.100E+00	2.248E+01	3.750E+01	3.941E+00	0.083
RA-223		81.07		-7.558E-02	1.945E-01	2.384E-01	2.074E-02	-0.317
	+	83.78		1.073E-01	9.866E-02	1.532E-01	1.377E-02	0.700
		94.90		1.138E-01	1.926E-01	2.833E-01	2.552E-02	0.402
		122.32		-1.613E+00	1.304E+00	2.088E+00	1.900E-01	-0.772
		144.24		3.694E-01	5.457E-01	9.249E-01	9.216E-02	0.399
		154.21		2.517E-01	3.277E-01	5.639E-01	5.696E-02	0.446
	+	269.46		5.295E-01	3.238E-01	3.037E-01	4.569E-02	1.743

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		323.87	*	4.812E-02	6.097E-01	8.722E-01	1.824E-01	0.055
	+	338.28		8.383E+00	1.972E+00	2.348E+00	3.780E-01	3.570
		445.03		-5.129E-02	1.878E+00	3.145E+00	4.315E-01	-0.016
AC-227		79.80		2.941E-01	1.422E+00	1.818E+00	3.905E-01	0.162
		236.00		2.917E-01	2.083E-01	3.230E-01	5.086E-02	0.903
		256.20	*	-1.323E-01	3.344E-01	5.303E-01	1.011E-01	-0.249
		286.10		6.422E-01	1.258E+00	2.082E+00	3.808E-01	0.308
	+	299.80		2.602E+00	1.641E+00	2.205E+00	4.699E-01	1.180
		304.40		2.564E-01	1.647E+00	2.385E+00	5.246E-01	0.108
		334.20		-4.102E-02	2.225E+00	3.148E+00	6.963E-01	-0.013
TH-227		79.80		2.941E-01	1.422E+00	1.818E+00	3.955E-01	0.162
	+	94.00		8.273E+00	3.025E+00	2.844E+00	6.243E-01	2.909
		236.00		2.917E-01	2.077E-01	3.230E-01	4.798E-02	0.903
		256.20	*	-1.323E-01	3.346E-01	5.303E-01	1.130E-01	-0.249
		286.10		6.422E-01	1.411E+00	2.082E+00	2.106E+00	0.308
	+	299.80		2.602E+00	1.641E+00	2.205E+00	4.699E-01	1.180
		304.40		2.564E-01	1.647E+00	2.385E+00	5.246E-01	0.108
		334.20		-4.102E-02	2.225E+00	3.148E+00	6.963E-01	-0.013
TH-229	+	85.43		1.606E-01	1.477E-01	2.289E-01	2.101E-02	0.701
	+	88.47		4.040E-01	1.055E-01	1.495E-01	1.412E-02	2.702
		100.00		1.073E-01	1.344E-01	2.365E-01	2.076E-02	0.454
		193.63	*	6.353E-02	4.042E-01	6.734E-01	7.394E-02	0.094
	+	210.97		2.039E+00	9.027E-01	1.090E+00	1.290E-01	1.870
PA-231		283.67	*	-4.153E-01	1.292E+00	2.041E+00	4.043E-01	-0.204
	+	301.29		1.041E+00	6.434E-01	8.809E-01	1.518E-01	1.181
TH-231		81.07		-7.558E-02	1.945E-01	2.384E-01	2.074E-02	-0.317
	+	83.78		1.073E-01	9.866E-02	1.532E-01	1.377E-02	0.700
		94.90		1.138E-01	1.926E-01	2.833E-01	2.552E-02	0.402
		122.32		-1.613E+00	1.304E+00	2.088E+00	1.900E-01	-0.772
		144.24		3.694E-01	5.457E-01	9.249E-01	9.216E-02	0.399
		154.21		2.517E-01	3.277E-01	5.639E-01	5.696E-02	0.446
	+	269.46		5.295E-01	3.238E-01	3.037E-01	4.569E-02	1.743
		323.87	*	4.812E-02	6.097E-01	8.722E-01	1.824E-01	0.055
	+	338.28		8.383E+00	1.972E+00	2.348E+00	3.780E-01	3.570
		445.03		-5.129E-02	1.878E+00	3.145E+00	4.315E-01	-0.016
U-231	+	84.21		4.533E+00	4.170E+00	6.505E+00	5.880E-01	0.697
	+	92.29		8.019E+00	2.454E+00	3.095E+00	2.836E-01	2.591
		95.87	*	-9.879E-02	8.827E-01	1.250E+00	1.120E-01	-0.079
		108.00		-1.408E+00	1.510E+00	2.484E+00	2.127E-01	-0.567
PA-233	+	75.28		1.891E+01	3.918E+00	5.040E+00	7.603E-01	3.752
	+	86.59		5.792E+00	2.110E+00	2.485E+00	6.723E-01	2.331
	+	300.12		7.253E-01	4.526E-01	6.202E-01	1.192E-01	1.170
		311.98	*	-2.199E-02	5.543E-02	8.641E-02	1.268E-02	-0.254
		340.50		6.452E-01	5.901E-01	8.756E-01	2.272E-01	0.737
		398.62		-1.392E+00	1.730E+00	2.709E+00	7.414E-01	-0.514
		415.76		1.818E-01	1.351E+00	2.296E+00	5.162E-01	0.079
PA-234		63.00		1.388E+00	1.128E+00	1.858E+00	2.750E-01	0.747
		94.67		1.887E-01	1.429E-01	2.152E-01	2.729E-02	0.877
		98.44		-1.693E-02	6.930E-02	1.143E-01	6.381E-02	-0.148

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		99.86		2.776E-01	3.404E-01	5.993E-01	5.265E-02	0.463
		111.00		2.226E-02	1.335E-01	2.292E-01	2.754E-02	0.097
		131.20		-1.228E-01	9.001E-02	1.438E-01	1.241E-02	-0.854
		152.70		2.728E-01	2.673E-01	4.589E-01	7.972E-02	0.594
	+	186.00		4.284E+00	2.382E+00	2.254E+00	7.174E-01	1.901
		226.40		-3.289E-02	3.428E-01	5.589E-01	9.001E-02	-0.059
		227.20		2.119E-02	3.619E-01	5.944E-01	7.530E-02	0.036
		248.90		-7.060E-02	6.817E-01	1.103E+00	2.745E-01	-0.064
		293.70		3.858E+00	1.095E+00	1.351E+00	2.876E-01	2.856
		369.80		-6.994E-01	7.595E-01	1.091E+00	2.541E-01	-0.641
		568.70		1.716E-01	8.724E-01	1.449E+00	1.504E-01	0.118
		569.50		-9.374E-02	2.382E-01	3.782E-01	3.925E-02	-0.248
		574.00		2.256E-01	1.154E+00	1.929E+00	1.995E-01	0.117
		699.00		-4.328E-02	6.782E-01	1.093E+00	2.135E-01	-0.040
		706.10		-6.594E-01	1.030E+00	1.513E+00	6.775E-01	-0.436
		733.00		1.770E-01	3.806E-01	5.626E-01	1.273E-01	0.315
		742.81		9.479E-01	1.286E+00	1.940E+00	1.307E+00	0.489
	+	796.30		2.961E+00	1.400E+00	1.569E+00	4.307E-01	1.887
		805.60		-3.951E-02	9.069E-01	1.445E+00	4.480E-01	-0.027
		819.60		-6.119E-01	1.172E+00	1.701E+00	6.520E-01	-0.360
		826.30		1.875E-01	7.334E-01	1.192E+00	5.361E-01	0.157
		831.60		-3.079E-01	5.685E-01	8.474E-01	2.561E-01	-0.363
		876.40		2.303E-01	8.052E-01	1.323E+00	1.362E+00	0.174
		880.51		-3.229E-01	2.454E-01	3.603E-01	3.550E-02	-0.896
		883.24		1.047E-01	2.464E-01	4.118E-01	2.775E-01	0.254
		899.00		-7.540E-02	7.519E-01	1.249E+00	5.491E-01	-0.060
		925.00		7.226E-01	1.023E+00	1.810E+00	1.764E-01	0.399
		926.50		4.711E-02	1.539E-01	2.632E-01	6.761E-02	0.179
		946.00	*	-2.802E-03	2.648E-01	4.416E-01	8.508E-02	-0.006
		949.00		2.848E-02	4.170E-01	6.997E-01	6.754E-02	0.041
		980.50		1.658E-01	6.469E-01	1.100E+00	1.046E-01	0.151
		1394.10		7.207E-01	9.142E-01	1.461E+00	9.502E-01	0.493
PA-234M		766.42		9.019E+00	1.256E+01	1.777E+01	9.054E+00	0.507
		1001.03	*	5.793E+00	4.230E+00	7.716E+00	8.208E-01	0.751
TH-234		63.29	*	7.634E-01	9.635E-01	1.572E+00	2.735E-01	0.486
	+	92.38		2.141E+00	7.383E-01	8.354E-01	1.532E-01	2.563
U-235	+	89.95		1.721E+00	8.051E-01	1.402E+00	4.354E-01	1.228
	+	93.35		2.574E+00	1.045E+00	1.008E+00	2.839E-01	2.555
		105.00		1.431E+00	9.202E-01	1.478E+00	4.410E-01	0.969
		143.76	*	1.108E-02	1.697E-01	2.818E-01	4.982E-02	0.039
		163.35		-4.169E-01	3.944E-01	6.084E-01	1.190E-01	-0.685
	+	185.71		1.587E-01	7.428E-02	8.274E-02	8.774E-03	1.918
		205.31		5.623E-02	4.476E-01	6.620E-01	1.362E-01	0.085
NP-236		94.67		1.449E-01	1.077E-01	1.634E-01	1.474E-02	0.887
		98.44		-1.280E-02	5.191E-02	8.641E-02	7.639E-03	-0.148
		111.00		1.684E-02	1.010E-01	1.734E-01	1.476E-02	0.097
		160.31	*	3.141E-02	6.372E-02	1.087E-01	1.034E-02	0.289
U-238		63.29	*	7.634E-01	9.635E-01	1.572E+00	2.735E-01	0.486
	+	92.38		2.141E+00	6.552E-01	8.354E-01	7.649E-02	2.563

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		9.707E-02	1.137E-01	2.005E-01	1.764E-02	0.484
		117.00	*	5.649E-03	1.437E-01	2.450E-01	2.073E-02	0.023
	+	209.75		2.054E+00	9.094E-01	1.247E+00	1.468E-01	1.647
		228.18		4.020E-02	1.845E-01	3.052E-01	3.882E-02	0.132
	+	277.60		1.624E-01	1.888E-01	2.680E-01	4.125E-02	0.606
		334.30		-1.423E-01	1.255E+00	1.761E+00	2.406E-01	-0.081
AM-241		59.54	*	-1.734E-02	1.026E-01	1.620E-01	1.273E-02	-0.107
CM-243		99.55		9.988E-02	1.170E-01	2.063E-01	1.815E-02	0.484
		103.76	*	-3.984E-04	7.324E-02	1.254E-01	1.086E-02	-0.003
		117.00		5.812E-03	1.479E-01	2.521E-01	2.133E-02	0.023
	+	209.75		2.025E+00	8.965E-01	1.230E+00	1.448E-01	1.647
		228.18		4.062E-02	1.864E-01	3.084E-01	3.922E-02	0.132
	+	277.60		1.637E-01	1.903E-01	2.702E-01	4.159E-02	0.606
AM-246		798.80		-8.355E-02	1.313E-01	1.661E-01	1.630E-02	-0.503
		1036.00		-1.470E-01	2.859E-01	4.520E-01	4.147E-02	-0.325
		1062.04		7.023E-02	2.199E-01	3.729E-01	3.354E-02	0.188
		1078.86	*	8.536E-02	1.374E-01	2.381E-01	2.112E-02	0.359
CM-247	+	278.00		6.735E-01	7.828E-01	1.107E+00	1.706E-01	0.608
		287.40		-1.377E-02	1.013E+00	1.631E+00	2.492E-01	-0.008
		402.60	*	3.979E-02	3.100E-02	5.568E-02	5.960E-03	0.715
CF-249		252.85		3.717E-02	7.690E-01	1.253E+00	1.759E-01	0.030
		333.44		7.639E-02	1.726E-01	2.527E-01	3.461E-02	0.302
		387.95	*	4.004E-02	3.322E-02	5.958E-02	6.488E-03	0.672
CF-251		176.60	*	4.409E-02	9.663E-02	1.639E-01	1.670E-02	0.269
		227.00		-7.105E-02	3.247E-01	5.261E-01	6.658E-02	-0.135
		285.00		1.290E+00	1.466E+00	2.465E+00	3.781E-01	0.523

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837001      *
* Acquisition date : 23-FEB-2010 12:05:24 Detector SN#     :               *
* Detector ID      : GAM11                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.02     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  8-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G246837001           Analyst initials: MXR1            *
* Batch Number     : 952641               Sample Quantity : 1.4480E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.591E+01	3.494E+00	4.119E-01	0.000E+00
CD-109	3.010E+00	7.703E-01	1.080E+00	0.000E+00
SN-126	2.959E-01	7.572E-02	1.065E-01	0.000E+00
HG-203	3.705E-02	4.221E-02	5.793E-02	0.000E+00
TL-208	5.406E-01	9.580E-02	5.003E-02	0.000E+00
BI-211	3.573E+00	5.941E-01	2.812E-01	0.000E+00
BI-212	1.392E+00	5.112E-01	3.802E-01	0.000E+00
PB-212	1.770E+00	2.631E-01	7.907E-02	0.000E+00
PO-212	1.770E+00	2.631E-01	7.907E-02	0.000E+00
BI-214	1.113E+00	1.786E-01	9.987E-02	0.000E+00
PB-214	1.243E+00	2.162E-01	9.802E-02	0.000E+00
PO-214	1.243E+00	2.162E-01	9.802E-02	0.000E+00
PO-216	1.770E+00	2.631E-01	7.907E-02	0.000E+00
PO-218	1.243E+00	2.162E-01	9.802E-02	0.000E+00
RA-224	4.857E+00	1.366E+00	8.999E-01	0.000E+00
RA-226	1.113E+00	1.786E-01	9.987E-02	0.000E+00
AC-228	1.935E+00	3.439E-01	1.844E-01	0.000E+00
RA-228	1.935E+00	3.439E-01	1.844E-01	0.000E+00
TH-228	1.797E+00	2.670E-01	8.026E-02	0.000E+00
TH-230	1.113E+00	1.786E-01	9.987E-02	0.000E+00
TH-232	1.935E+00	3.439E-01	1.844E-01	0.000E+00
U-234	1.113E+00	1.786E-01	9.987E-02	0.000E+00
NP-237	8.688E-01	2.834E-01	3.153E-01	0.000E+00
AM-243	3.610E-01	5.792E-02	6.708E-02	0.000E+00
ANH-511	1.349E-01	6.939E-02	4.220E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.820E-01	2.545E-01	4.672E-01	0.000E+00	NOT IDENT.
NA-22	1.086E-02	4.090E-02	7.011E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	5.377E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-3.855E-03	2.643E-02	4.329E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.721E-02	5.633E-02	0.000E+00	FAIL ABUN
SC-46	-5.115E-03	3.323E-02	5.710E-02	0.000E+00	FAIL ABUN
V-48	-2.254E-02	6.057E-02	1.008E-01	0.000E+00	NOT IDENT.
CR-51	2.401E-01	3.006E-01	5.330E-01	0.000E+00	NOT IDENT.
MN-52	-1.384E-01	1.934E-01	2.833E-01	0.000E+00	NOT IDENT.
MN-54	2.116E-03	3.049E-02	5.372E-02	0.000E+00	NOT IDENT.
CO-56	1.530E-02	3.377E-02	6.110E-02	0.000E+00	NOT IDENT.
CO-57	-1.610E-02	1.838E-02	3.257E-02	0.000E+00	NOT IDENT.
CO-58	-2.308E-02	3.286E-02	5.063E-02	0.000E+00	NOT IDENT.
FE-59	-4.062E-02	8.910E-02	1.459E-01	0.000E+00	NOT IDENT.
CO-60	1.504E-03	3.354E-02	5.614E-02	0.000E+00	NOT IDENT.
ZN-65	1.921E-02	9.063E-02	1.368E-01	0.000E+00	NOT IDENT.
GE-68	6.032E-01	1.157E+00	2.056E+00	0.000E+00	NOT IDENT.
AS-73	1.975E-04	5.256E-01	9.269E-01	0.000E+00	NOT IDENT.
AS-74	-1.895E-02	7.597E-02	1.280E-01	0.000E+00	NOT IDENT.
SE-75	-2.139E-02	4.037E-02	5.957E-02	0.000E+00	NOT IDENT.
BR-77	-3.287E+00	8.321E+00	1.407E+01	0.000E+00	FAIL ABUN
SR-82	-5.437E-01	3.439E-01	4.836E-01	0.000E+00	NOT IDENT.
RB-83	-2.697E-02	5.771E-02	9.704E-02	0.000E+00	NOT IDENT.
RB-84	-4.173E-02	5.979E-02	9.788E-02	0.000E+00	NOT IDENT.
KR-85	5.442E+00	6.713E+00	1.098E+01	0.000E+00	NOT IDENT.
SR-85	2.787E-02	3.438E-02	5.623E-02	0.000E+00	NOT IDENT.
RB-86	1.437E-01	7.367E-01	1.277E+00	0.000E+00	NOT IDENT.
Y-88	-2.522E-02	3.084E-02	4.384E-02	0.000E+00	NOT IDENT.
ZR-88	-1.587E-02	2.295E-02	3.915E-02	0.000E+00	NOT IDENT.
Y-91	-5.949E+00	1.790E+01	2.934E+01	0.000E+00	NOT IDENT.
NB-94	2.777E-02	3.029E-02	5.444E-02	0.000E+00	NOT IDENT.
NB-95	7.385E-03	4.326E-02	6.434E-02	0.000E+00	NOT IDENT.
NB-95M	1.239E-01	1.102E-01	1.816E-01	0.000E+00	NOT IDENT.
ZR-95	3.424E-02	6.393E-02	1.117E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.785E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.434E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-7.364E+00	9.845E+00	1.531E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.118E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.486E-03	2.688E-02	4.655E-02	0.000E+00	NOT IDENT.
RH-102	-1.880E-02	2.249E-02	3.695E-02	0.000E+00	NOT IDENT.
RU-103	9.578E-03	3.383E-02	6.027E-02	0.000E+00	FAIL ABUN
RH-106	-1.343E-01	2.667E-01	4.364E-01	0.000E+00	FAIL ABUN
RU-106	-1.343E-01	2.663E-01	4.364E-01	0.000E+00	FAIL ABUN
AG-108M	-4.512E-03	2.619E-02	4.590E-02	0.000E+00	NOT IDENT.
AG-110M	-1.159E-04	3.211E-02	5.459E-02	0.000E+00	NOT IDENT.
IN-111	-2.051E-01	8.839E-01	1.349E+00	0.000E+00	NOT IDENT.
IN-113M	-1.112E-02	3.376E-02	5.916E-02	0.000E+00	NOT IDENT.
SN-113	-1.112E-02	3.376E-02	5.916E-02	0.000E+00	NOT IDENT.
IN-114M	-2.896E-02	1.619E-01	2.553E-01	0.000E+00	NOT IDENT.
CD-115	-6.671E+00	9.055E+00	1.488E+01	0.000E+00	NOT IDENT.
SN-117M	-1.790E-02	4.329E-02	7.679E-02	0.000E+00	NOT IDENT.
SB-122	1.197E+00	1.705E+00	3.083E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	3.914E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.552E-02	2.230E-02	3.903E-02	0.000E+00	NOT IDENT.
I-124	9.242E-02	5.515E-01	9.579E-01	0.000E+00	NOT IDENT.
SB-124	7.409E-03	5.496E-02	9.556E-02	0.000E+00	FAIL ABUN
SB-125	3.159E-03	7.548E-02	1.343E-01	0.000E+00	FAIL ABUN
TE-125M	-4.042E-01	6.684E+00	1.238E+01	0.000E+00	NOT IDENT.
I-126	3.663E-02	1.633E-01	2.818E-01	0.000E+00	NOT IDENT.
SB-126	-3.948E-02	1.170E-01	1.910E-01	0.000E+00	FAIL ABUN
SB-127	1.123E+00	1.182E+00	2.136E+00	0.000E+00	NOT IDENT.
XE-127	3.684E-03	3.724E-02	6.616E-02	0.000E+00	NOT IDENT.
I-131	-2.778E-02	9.297E-02	1.523E-01	0.000E+00	NOT IDENT.
TE-132	1.773E-01	5.378E-01	9.554E-01	0.000E+00	NOT IDENT.
BA-133	2.927E-02	3.801E-02	6.043E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.856E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.930E-02	8.375E-02	0.000E+00	FAIL ABUN
CS-135	1.144E-01	1.449E-01	2.338E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.173E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.385E-02	1.028E-01	1.791E-01	0.000E+00	FAIL ABUN
BA-137M	-1.765E-02	3.243E-02	5.277E-02	0.000E+00	NOT IDENT.
CS-137	-1.866E-02	3.428E-02	5.578E-02	0.000E+00	NOT IDENT.
CE-139	1.635E-03	2.314E-02	4.174E-02	0.000E+00	NOT IDENT.
BA-140	1.282E-02	2.186E-01	3.811E-01	0.000E+00	NOT IDENT.
LA-140	-6.300E-02	7.076E-02	1.046E-01	0.000E+00	FAIL ABUN
CE-141	2.607E-02	4.894E-02	9.059E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.455E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.402E-01	1.609E-01	2.821E-01	0.000E+00	NOT IDENT.
PM-144	9.607E-03	3.123E-02	5.399E-02	0.000E+00	NOT IDENT.
PR-144	6.509E-01	2.116E+00	3.658E+00	0.000E+00	NOT IDENT.

PM-146	1.327E-02	3.583E-02	6.394E-02	0.000E+00	NOT IDENT.
ND-147	3.184E-01	4.900E-01	8.843E-01	0.000E+00	FAIL ABUN
PM-149	4.770E+01	7.141E+01	1.263E+02	0.000E+00	NOT IDENT.
EU-152	-5.371E-02	8.022E-02	1.285E-01	0.000E+00	FAIL ABUN
GD-153	-3.132E-02	6.913E-02	1.032E-01	0.000E+00	FAIL ABUN
EU-154	3.322E-02	1.145E-01	1.967E-01	0.000E+00	NOT IDENT.
EU-155	0.000E+00	8.112E-02	1.587E-01	0.000E+00	FAIL ABUN
TB-160	-3.543E-02	1.168E-01	1.982E-01	0.000E+00	FAIL ABUN
HO-166M	7.065E-03	5.250E-02	8.952E-02	0.000E+00	NOT IDENT.
TM-171	6.755E+00	1.937E+01	3.410E+01	0.000E+00	NOT IDENT.
LU-176	-1.328E-02	2.042E-02	3.321E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.242E+00	1.711E+00	0.000E+00	FAIL ABUN
LU-177M	-1.756E-01	1.474E-01	2.417E-01	0.000E+00	NOT IDENT.
HF-181	-4.066E-02	3.376E-02	5.353E-02	0.000E+00	NOT IDENT.
W-181	-6.102E-01	2.749E-01	4.315E-01	0.000E+00	NOT IDENT.
TA-182	-1.039E-01	1.906E-01	3.066E-01	0.000E+00	FAIL ABUN
RE-183	7.816E-02	8.766E-02	1.611E-01	0.000E+00	FAIL ABUN
RE-184	9.901E-03	2.007E-01	3.492E-01	0.000E+00	NOT IDENT.
OS-185	-9.512E-03	3.772E-02	6.299E-02	0.000E+00	NOT IDENT.
RE-188	-1.362E-02	1.405E-01	2.531E-01	0.000E+00	NOT IDENT.
W-188	-1.277E+00	6.399E+00	9.601E+00	0.000E+00	NOT IDENT.
IR-192	-1.421E-03	2.840E-02	4.812E-02	0.000E+00	FAIL ABUN
AU-195	7.221E-02	1.650E-01	3.060E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.516E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-9.789E-01	5.096E+00	9.081E+00	0.000E+00	NOT IDENT.
TL-202	3.285E-02	5.651E-02	1.034E-01	0.000E+00	NOT IDENT.
BI-207	6.551E-03	4.956E-02	8.555E-02	0.000E+00	FAIL ABUN
TL-207	4.812E-02	5.975E-01	9.073E-01	0.000E+00	FAIL ABUN
PO-209	3.430E+00	6.467E+00	1.171E+01	0.000E+00	NOT IDENT.
BI-210	-8.522E-01	2.031E+00	3.540E+00	0.000E+00	NOT IDENT.
PB-210	-8.522E-01	2.031E+00	3.540E+00	0.000E+00	NOT IDENT.
PO-210	-8.522E-01	2.031E+00	3.540E+00	0.000E+00	NOT IDENT.
PB-211	-6.295E-01	8.633E-01	1.310E+00	0.000E+00	NOT IDENT.
PO-215	4.812E-02	5.975E-01	9.073E-01	0.000E+00	FAIL ABUN
RN-219	3.793E-01	3.343E-01	6.254E-01	0.000E+00	FAIL ABUN
RN-220	3.100E+00	2.203E+01	3.855E+01	0.000E+00	NOT IDENT.
RA-223	4.812E-02	5.975E-01	9.073E-01	0.000E+00	FAIL ABUN
AC-227	-1.323E-01	3.277E-01	5.545E-01	0.000E+00	FAIL ABUN
TH-227	-1.323E-01	3.279E-01	5.545E-01	0.000E+00	FAIL ABUN
TH-229	6.353E-02	3.961E-01	7.083E-01	0.000E+00	FAIL ABUN
PA-231	-4.153E-01	1.266E+00	2.129E+00	0.000E+00	FAIL ABUN
TH-231	4.812E-02	5.975E-01	9.073E-01	0.000E+00	FAIL ABUN
U-231	-9.879E-02	8.650E-01	1.335E+00	0.000E+00	FAIL ABUN
PA-233	-2.199E-02	5.432E-02	8.996E-02	0.000E+00	FAIL ABUN
PA-234	-2.802E-03	2.595E-01	4.484E-01	0.000E+00	FAIL ABUN
PA-234M	5.793E+00	4.146E+00	7.826E+00	0.000E+00	NOT IDENT.
TH-234	7.634E-01	9.442E-01	1.693E+00	0.000E+00	FAIL ABUN
U-235	1.108E-02	1.664E-01	2.983E-01	0.000E+00	FAIL ABUN
NP-236	3.141E-02	6.245E-02	1.148E-01	0.000E+00	NOT IDENT.
U-238	7.634E-01	9.442E-01	1.693E+00	0.000E+00	FAIL ABUN
NP-239	5.649E-03	1.408E-01	2.605E-01	0.000E+00	FAIL ABUN
AM-241	-1.734E-02	1.005E-01	1.747E-01	0.000E+00	NOT IDENT.
CM-243	-3.984E-04	7.178E-02	1.337E-01	0.000E+00	FAIL ABUN
AM-246	8.536E-02	1.347E-01	2.411E-01	0.000E+00	NOT IDENT.
CM-247	3.979E-02	3.038E-02	5.764E-02	0.000E+00	FAIL ABUN
CF-249	4.004E-02	3.255E-02	6.173E-02	0.000E+00	NOT IDENT.
CF-251	4.409E-02	9.469E-02	1.728E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:05:49.29

```
*******************************************************************************
*                            GEL Laboratories LLC                             *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837001.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:05:24
Sample ID         : G246837001           Sample quantity  : 1.44800E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.02  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 952641               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1811	10.67*	1.225E+00	3.591E+01	3.591E+01	9.93
CD-109	88.03	287	3.72*	6.787E+00	2.943E+00	3.010E+00	26.12
SN-126	64.28	------	9.60	4.433E+00	------	Line Not Found	------
	86.94	287	8.90	6.787E+00	1.230E+00	1.230E+00	48.15
	87.57	287	37.00*	6.787E+00	2.959E-01	2.959E-01	26.12
HG-203	70.83	------	4.75	5.333E+00	------	Line Not Found	------
	72.87	------	8.00	5.576E+00	------	Line Not Found	------
	82.60	67	3.55	6.591E+00	7.463E-01	9.335E-01	92.60
	279.20	41	77.30*	4.671E+00	2.962E-02	3.705E-02	116.25
TL-208	277.35	41	6.80	4.671E+00	3.367E-01	3.367E-01	116.57
	510.84	154	21.60	2.954E+00	6.243E-01	6.243E-01	53.17
	583.14	467	84.20*	2.661E+00	5.406E-01	5.406E-01	18.08
	860.37	77	12.46	1.926E+00	8.363E-01	8.363E-01	40.57
BI-211	72.87	------	1.27	5.576E+00	------	Line Not Found	------
	351.07	700	12.94*	3.922E+00	3.573E+00	3.573E+00	16.96
BI-212	727.18	141	11.80*	2.221E+00	1.392E+00	1.392E+00	37.48
	785.46	64	1.97	2.081E+00	4.077E+00	4.077E+00	52.27
	1620.62	------	2.75	1.134E+00	------	Line Not Found	------
PB-212	74.81	532	10.70	5.787E+00	2.227E+00	2.227E+00	18.85
	77.11	833	18.00	6.019E+00	1.994E+00	1.994E+00	13.09
	87.30	287	8.00	6.787E+00	1.368E+00	1.368E+00	27.96
	238.63	1587	44.60*	5.210E+00	1.770E+00	1.770E+00	15.17
	300.09	81	3.41	4.412E+00	1.404E+00	1.404E+00	61.49
PO-212	74.81	532	10.70	5.787E+00	2.227E+00	2.227E+00	18.85
	77.11	833	18.00	6.019E+00	1.994E+00	1.994E+00	13.09
	87.30	287	8.00	6.787E+00	1.368E+00	1.368E+00	27.96
	115.19	------	0.60	7.407E+00	------	Line Not Found	------
	238.63	1587	44.60*	5.210E+00	1.770E+00	1.770E+00	15.17
	300.09	81	3.41	4.412E+00	1.404E+00	1.404E+00	61.49
BI-214	609.31	511	46.30*	2.569E+00	1.113E+00	1.113E+00	16.37
	1120.29	137	15.10	1.531E+00	1.541E+00	1.541E+00	31.38
	1764.49	98	15.80	1.071E+00	1.500E+00	1.500E+00	25.87

Sample ID : G246837001 Acquisition date : 23-FEB-2010 12:05:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	74.81	532	6.21	5.787E+00	3.837E+00	3.837E+00	17.97
	77.11	833	10.50	6.019E+00	3.418E+00	3.418E+00	15.15
	87.30	287	4.67	6.787E+00	2.344E+00	2.344E+00	27.23
	241.98	382	7.49	5.164E+00	2.562E+00	2.562E+00	29.24
	295.21	454	19.20	4.467E+00	1.374E+00	1.374E+00	21.33
	351.92	700	37.20*	3.922E+00	1.243E+00	1.243E+00	17.75
PO-214	74.81	532	6.21	5.787E+00	3.837E+00	3.837E+00	17.97
	77.11	833	10.50	6.019E+00	3.418E+00	3.418E+00	15.15
	87.30	287	4.67	6.787E+00	2.344E+00	2.344E+00	27.23
	241.98	382	7.49	5.164E+00	2.562E+00	2.562E+00	29.24
	295.21	454	19.20	4.467E+00	1.374E+00	1.374E+00	21.33
	351.92	700	37.20*	3.922E+00	1.243E+00	1.243E+00	17.75
PO-216	74.81	532	10.70	5.787E+00	2.227E+00	2.227E+00	18.85
	77.11	833	18.00	6.019E+00	1.994E+00	1.994E+00	13.09
	87.30	287	8.00	6.787E+00	1.368E+00	1.368E+00	27.96
	238.63	1587	44.60*	5.210E+00	1.770E+00	1.770E+00	15.17
	300.09	81	3.41	4.412E+00	1.404E+00	1.404E+00	61.49
PO-218	74.81	532	6.21	5.787E+00	3.837E+00	3.837E+00	17.97
	77.11	833	10.50	6.019E+00	3.418E+00	3.418E+00	15.15
	87.30	287	4.67	6.787E+00	2.344E+00	2.344E+00	27.23
	241.98	382	7.49	5.164E+00	2.562E+00	2.562E+00	29.24
	295.21	454	19.20	4.467E+00	1.374E+00	1.374E+00	21.33
	351.92	700	37.20*	3.922E+00	1.243E+00	1.243E+00	17.75
RA-224	240.98	382	3.95*	5.164E+00	4.857E+00	4.857E+00	28.70
RA-226	609.31	511	46.30*	2.569E+00	1.113E+00	1.113E+00	16.37
	1120.29	137	15.10	1.531E+00	1.541E+00	1.541E+00	31.38
	1764.49	98	15.80	1.071E+00	1.500E+00	1.500E+00	25.87
AC-228	338.32	357	11.40	4.040E+00	2.007E+00	2.007E+00	45.87
	911.07	379	27.70*	1.833E+00	1.935E+00	1.935E+00	18.13
	969.11	213	16.60	1.738E+00	1.918E+00	1.918E+00	29.94
RA-228	338.32	357	11.40	4.040E+00	2.007E+00	2.007E+00	45.87
	911.07	379	27.70*	1.833E+00	1.935E+00	1.935E+00	18.13
	969.11	213	16.60	1.738E+00	1.918E+00	1.918E+00	29.94
TH-228	74.81	532	10.70	5.787E+00	2.227E+00	2.260E+00	16.41
	77.11	833	18.00	6.019E+00	1.994E+00	2.024E+00	13.09
	87.30	287	8.00	6.787E+00	1.368E+00	1.389E+00	26.12
	238.63	1587	44.60*	5.210E+00	1.770E+00	1.797E+00	15.17
	300.09	81	3.41	4.412E+00	1.404E+00	1.425E+00	84.78
TH-230	609.31	511	46.30*	2.569E+00	1.113E+00	1.113E+00	16.37
	1120.29	137	15.10	1.531E+00	1.541E+00	1.541E+00	31.38
	1764.49	98	15.80	1.071E+00	1.500E+00	1.500E+00	25.87
TH-232	338.32	357	11.40	4.040E+00	2.007E+00	2.007E+00	21.82
	911.07	379	27.70*	1.833E+00	1.935E+00	1.935E+00	18.13
	969.11	213	16.60	1.738E+00	1.918E+00	1.918E+00	29.94
U-234	609.31	511	46.30*	2.569E+00	1.113E+00	1.113E+00	16.37
	1120.29	137	15.10	1.531E+00	1.541E+00	1.541E+00	31.38
	1764.49	98	15.80	1.071E+00	1.500E+00	1.500E+00	25.87
NP-237	86.50	287	12.60*	6.787E+00	8.688E-01	8.688E-01	33.28
	95.87	------	2.60	7.169E+00	------	Line Not Found	------

Sample ID : G246837001 Acquisition date : 23-FEB-2010 12:05:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	532	66.00*	5.787E+00	3.610E-01	3.610E-01	16.37
	86.72	287	0.34	6.787E+00	3.258E+01	3.258E+01	26.12
	117.66	------	0.55	7.397E+00	------	Line Not Found	------
	142.18	------	0.13	7.065E+00	------	Line Not Found	------
ANH-511	511.00	154	100.00*	2.954E+00	1.349E-01	1.349E-01	52.51

Flag: "*" = Keyline

Sample ID : G246837001 Acquisition date : 23-FEB-2010 12:05:24

Total number of lines in spectrum 35
Number of unidentified lines 3
Number of lines tentatively identified by NID 32 91.43%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.591E+01	3.591E+01	0.357E+01	9.93	
CD-109	464.00D	1.02	2.943E+00	3.010E+00	0.786E+00	26.12	
SN-126	1.00E+05Y	1.00	2.959E-01	2.959E-01	0.773E-01	26.12	
HG-203	46.60D	1.25	2.962E-02	3.705E-02	4.307E-02	116.25	
TL-208	1.41E+10Y	1.00	5.406E-01	5.406E-01	0.978E-01	18.08	
BI-211	7.04E+08Y	1.00	3.573E+00	3.573E+00	0.606E+00	16.96	
BI-212	1.41E+10Y	1.00	1.392E+00	1.392E+00	0.522E+00	37.48	
PB-212	1.41E+10Y	1.00	1.770E+00	1.770E+00	0.268E+00	15.17	
PO-212	1.41E+10Y	1.00	1.770E+00	1.770E+00	0.268E+00	15.17	
BI-214	1600.00Y	1.00	1.113E+00	1.113E+00	0.182E+00	16.37	
PB-214	1600.00Y	1.00	1.243E+00	1.243E+00	0.221E+00	17.75	
PO-214	1600.00Y	1.00	1.243E+00	1.243E+00	0.221E+00	17.75	
PO-216	1.41E+10Y	1.00	1.770E+00	1.770E+00	0.268E+00	15.17	
PO-218	1600.00Y	1.00	1.243E+00	1.243E+00	0.221E+00	17.75	
RA-224	1.41E+10Y	1.00	4.857E+00	4.857E+00	1.394E+00	28.70	
RA-226	1600.00Y	1.00	1.113E+00	1.113E+00	0.182E+00	16.37	
AC-228	1.41E+10Y	1.00	1.935E+00	1.935E+00	0.351E+00	18.13	
RA-228	1.41E+10Y	1.00	1.935E+00	1.935E+00	0.351E+00	18.13	
TH-228	1.91Y	1.02	1.770E+00	1.797E+00	0.272E+00	15.17	
TH-230	4.47E+09Y	1.00	1.113E+00	1.113E+00	0.182E+00	16.37	
TH-232	1.41E+10Y	1.00	1.935E+00	1.935E+00	0.351E+00	18.13	
U-234	4.47E+09Y	1.00	1.113E+00	1.113E+00	0.182E+00	16.37	
NP-237	2.14E+06Y	1.00	8.688E-01	8.688E-01	2.892E-01	33.28	
AM-243	7380.00Y	1.00	3.610E-01	3.610E-01	0.591E-01	16.37	
ANH-511	1.00E+09Y	1.00	1.349E-01	1.349E-01	0.708E-01	52.51	
	Total Activity :		7.197E+01	7.208E+01			

Grand Total Activity : 7.197E+01 7.208E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246837001 Acquisition date : 23-FEB-2010 12:05:24

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
6	89.99	124	219	0.84	178.89	177	13	1.73E-02	35.0	6.94E+00	T
6	92.86	316	541	1.34	184.65	177	13	4.38E-02	29.2	7.06E+00	T
0	185.95	203	484	1.24	370.96	367	11	2.83E-02	45.6	6.15E+00	T
0	209.51	146	277	1.17	418.13	414	8	2.03E-02	42.7	5.70E+00	T
0	270.88	132	323	1.24	540.95	534	13	1.84E-02	59.2	4.76E+00	T
0	327.84	97	134	1.14	654.95	652	8	1.34E-02	46.1	4.13E+00	T
0	463.32	124	130	0.99	926.08	920	12	1.72E-02	41.2	3.19E+00	T
0	769.09	33	108	1.17	1537.95	1533	11	4.62E-03	****	2.12E+00	
0	795.27	92	51	1.15	1590.34	1583	13	1.28E-02	38.5	2.06E+00	T
4	964.80	74	62	2.31	1929.56	1921	23	1.02E-02	51.6	1.74E+00	T
0	1409.42	23	20	1.30	2819.10	2814	10	3.13E-03	88.4	1.26E+00	T
0	1631.54	33	4	3.07	3263.43	3256	14	4.65E-03	41.9	1.13E+00	
0	1639.48	12	4	1.33	3279.32	3275	7	1.71E-03	76.4	1.12E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:05:54.81

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837001.CNF;1  *
* Acquisition date : 23-FEB-2010 12:05:24  Detector SN#    :                *
* Detector ID      : GAM11                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.02         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 8-FEB-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G246837001            Analyst initials: MXR1           *
* Batch Number     : 952641                Sample Quantity : 1.44800E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.591E+01	3.566E+00	4.098E-01	3.543E-02	87.637
CD-109	3.010E+00	7.860E-01	1.010E+00	9.574E-02	2.981
SN-126	2.959E-01	7.727E-02	9.957E-02	9.392E-03	2.972
HG-203	3.705E-02	4.307E-02	5.551E-02	8.671E-03	0.667
TL-208	5.406E-01	9.776E-02	4.873E-02	5.262E-03	11.095
BI-211	3.573E+00	6.062E-01	2.708E-01	3.573E-02	13.196
BI-212	1.392E+00	5.217E-01	3.722E-01	4.067E-02	3.740
PB-212	1.770E+00	2.685E-01	7.550E-02	1.057E-02	23.443
PO-212	1.770E+00	2.685E-01	7.550E-02	1.057E-02	23.443
BI-214	1.113E+00	1.822E-01	9.737E-02	1.101E-02	11.433
PB-214	1.243E+00	2.206E-01	9.440E-02	1.336E-02	13.167
PO-214	1.243E+00	2.206E-01	9.440E-02	1.336E-02	13.167
PO-216	1.770E+00	2.685E-01	7.550E-02	1.057E-02	23.443
PO-218	1.243E+00	2.206E-01	9.440E-02	1.336E-02	13.167
RA-224	4.857E+00	1.394E+00	8.596E-01	1.151E-01	5.651
RA-226	1.113E+00	1.822E-01	9.737E-02	1.101E-02	11.433
AC-228	1.935E+00	3.509E-01	1.814E-01	2.209E-02	10.667
RA-228	1.935E+00	3.509E-01	1.814E-01	2.209E-02	10.667

Sample ID : G246837001 Acquisition date : 23-FEB-2010 12:05:24

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.797E+00	2.725E-01	7.664E-02	1.073E-02	23.443
TH-230	1.113E+00	1.822E-01	9.737E-02	1.101E-02	11.433
TH-232	1.935E+00	3.509E-01	1.814E-01	2.209E-02	10.667
U-234	1.113E+00	1.822E-01	9.737E-02	1.101E-02	11.433
NP-237	8.688E-01	2.892E-01	2.947E-01	6.671E-02	2.948
AM-243	3.610E-01	5.910E-02	6.251E-02	5.058E-03	5.775
ANH-511	1.349E-01	7.081E-02	4.098E-02	4.382E-03	3.291

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.820E-01		2.597E-01	4.530E-01	5.127E-02	0.402
NA-22	1.086E-02		4.173E-02	6.952E-02	5.709E-03	0.156
NA-24	-4.932E-01		2.744E-01	Half-Life too short		
AL-26	-3.855E-03		2.697E-02	4.329E-02	3.533E-03	-0.089
TI-44	3.679E-01	+	4.818E-02	5.254E-02	4.429E-03	7.002
SC-46	-5.115E-03		3.391E-02	5.615E-02	5.530E-03	-0.091
V-48	-2.254E-02		6.180E-02	9.935E-02	9.424E-03	-0.227
CR-51	2.401E-01		3.067E-01	5.122E-01	7.434E-02	0.469
MN-52	-1.384E-01		1.973E-01	2.817E-01	2.360E-02	-0.491
MN-54	2.116E-03		3.111E-02	5.275E-02	5.194E-03	0.040
CO-56	1.530E-02		3.446E-02	6.002E-02	5.913E-03	0.255
CO-57	-1.610E-02		1.875E-02	3.066E-02	2.593E-03	-0.525
CO-58	-2.308E-02		3.353E-02	4.968E-02	4.892E-03	-0.465
FE-59	-4.062E-02		9.092E-02	1.442E-01	1.355E-02	-0.282
CO-60	1.504E-03		3.423E-02	5.573E-02	4.605E-03	0.027
ZN-65	1.921E-02		9.248E-02	1.352E-01	1.160E-02	0.142
GE-68	6.032E-01		1.180E+00	2.030E+00	1.803E-01	0.297
AS-73	1.975E-04		5.364E-01	8.578E-01	6.441E-02	0.000
AS-74	-1.895E-02		7.752E-02	1.247E-01	1.268E-02	-0.152
SE-75	-2.139E-02		4.120E-02	5.701E-02	8.380E-03	-0.375
BR-77	-3.287E+00		8.491E+00	1.367E+01	1.456E+00	-0.241
SR-82	-5.437E-01		3.510E-01	4.741E-01	4.637E-02	-1.147
RB-83	-2.697E-02		5.888E-02	9.427E-02	1.005E-02	-0.286
RB-84	-4.173E-02		6.101E-02	9.624E-02	9.482E-03	-0.434
KR-85	5.442E+00		6.850E+00	1.066E+01	1.139E+00	0.510
SR-85	2.787E-02		3.508E-02	5.461E-02	5.834E-03	0.510
RB-86	1.437E-01		7.517E-01	1.261E+00	1.121E-01	0.114
Y-88	-2.522E-02		3.147E-02	4.384E-02	3.559E-03	-0.575
ZR-88	-1.587E-02		2.342E-02	3.779E-02	4.031E-03	-0.420
Y-91	-5.949E+00		1.827E+01	2.905E+01	2.352E+00	-0.205
NB-94	2.777E-02		3.091E-02	5.325E-02	5.114E-03	0.521
NB-95	7.385E-03		4.414E-02	6.305E-02	6.155E-03	0.117
NB-95M	1.239E-01		1.124E-01	1.734E-01	2.421E-02	0.715
ZR-95	3.424E-02		6.523E-02	1.094E-01	1.151E-02	0.313
NB-97	1.210E-02		3.972E-02	Half-Life too short		
ZR-97	1.211E+00		7.317E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-7.364E+00		1.005E+01	1.499E+01	2.373E+00	-0.491
TC-99M	4.971E+09		1.081E+10	Half-Life too short		
RH-101	-5.486E-03		2.743E-02	4.427E-02	4.955E-03	-0.124
RH-102	-1.880E-02		2.295E-02	3.582E-02	3.862E-03	-0.525
RU-103	9.578E-03		3.452E-02	5.849E-02	9.091E-03	0.164
RH-106	-1.343E-01		2.721E-01	4.257E-01	6.058E-02	-0.315
RU-106	-1.343E-01		2.717E-01	4.257E-01	4.223E-02	-0.315
AG-108M	-4.512E-03		2.672E-02	4.441E-02	4.910E-03	-0.102
AG-110M	-1.159E-04		3.276E-02	5.331E-02	5.195E-03	-0.002
IN-111	-2.051E-01		9.019E-01	1.289E+00	1.757E-01	-0.159
IN-113M	-1.112E-02		3.445E-02	5.711E-02	6.212E-03	-0.195
SN-113	-1.112E-02		3.445E-02	5.711E-02	6.212E-03	-0.195
IN-114M	-2.896E-02		1.652E-01	2.426E-01	2.625E-02	-0.119
CD-115	-6.671E+00		9.240E+00	1.446E+01	1.537E+00	-0.461
SN-117M	-1.790E-02		4.417E-02	7.269E-02	6.869E-03	-0.246
SB-122	1.197E+00		1.740E+00	3.000E+00	3.125E-01	0.399
I-123	-2.725E+00		1.997E+00	Half-Life too short		
TE-123M	-1.552E-02		2.276E-02	3.695E-02	3.515E-03	-0.420
I-124	9.242E-02		5.628E-01	9.337E-01	9.436E-02	0.099
SB-124	7.409E-03		5.608E-02	9.539E-02	8.290E-03	0.078
SB-125	3.159E-03		7.702E-02	1.299E-01	1.417E-02	0.024
TE-125M	-4.042E-01		6.821E+00	1.162E+01	1.193E+00	-0.035
I-126	3.663E-02		1.666E-01	2.753E-01	2.610E-02	0.133
SB-126	-3.948E-02		1.194E-01	1.869E-01	1.805E-02	-0.211
SB-127	1.123E+00		1.206E+00	2.088E+00	2.520E-01	0.538
XE-127	3.684E-03		3.800E-02	6.296E-02	7.195E-03	0.059
I-131	-2.778E-02		9.487E-02	1.468E-01	1.842E-02	-0.189
TE-132	1.773E-01		5.488E-01	9.114E-01	1.665E-01	0.195
BA-133	2.927E-02		3.879E-02	5.821E-02	9.388E-03	0.503
I-133	3.191E-03		2.477E-03	Half-Life too short		
CS-134	1.523E-01	+	6.051E-02	8.215E-02	8.104E-03	1.855
CS-135	1.144E-01		1.479E-01	2.238E-01	3.511E-02	0.511
I-135	-2.160E+08		2.129E+09	Half-Life too short		
CS-136	2.385E-02		1.049E-01	1.768E-01	1.669E-02	0.135
BA-137M	-1.765E-02		3.309E-02	5.154E-02	4.877E-03	-0.342
CS-137	-1.866E-02		3.498E-02	5.449E-02	5.164E-03	-0.342
CE-139	1.635E-03		2.361E-02	3.955E-02	3.843E-03	0.041
BA-140	1.282E-02		2.231E-01	3.705E-01	1.249E-01	0.035
LA-140	-6.300E-02		7.221E-02	1.043E-01	8.767E-03	-0.604
CE-141	2.607E-02		4.993E-02	8.560E-02	7.845E-03	0.305
CE-143	3.552E-04		7.424E-05	Half-Life too short		
CE-144	-1.402E-01		1.642E-01	2.660E-01	4.151E-02	-0.527
PM-144	9.607E-03		3.187E-02	5.280E-02	5.062E-03	0.182
PR-144	6.509E-01		2.159E+00	3.577E+00	3.429E-01	0.182
PM-146	1.327E-02		3.656E-02	6.193E-02	7.765E-03	0.214
ND-147	3.184E-01		5.000E-01	8.595E-01	1.391E-01	0.370
PM-149	4.770E+01		7.286E+01	1.211E+02	2.427E+01	0.394
EU-152	-5.371E-02		8.186E-02	1.237E-01	1.677E-02	-0.434

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-3.132E-02		7.054E-02	9.671E-02	8.591E-03	-0.324
EU-154	3.322E-02		1.169E-01	1.950E-01	2.145E-02	0.170
EU-155	1.592E-01		8.277E-02	1.490E-01	1.300E-02	1.069
TB-160	-3.543E-02		1.192E-01	1.949E-01	1.920E-02	-0.182
HO-166M	7.065E-03		5.357E-02	8.758E-02	8.435E-03	0.081
TM-171	6.755E+00		1.977E+01	3.170E+01	2.379E+00	0.213
LU-176	-1.328E-02		2.083E-02	3.189E-02	4.687E-03	-0.417
LU-177	2.862E+00	+	1.267E+00	1.629E+00	1.907E-01	1.757
LU-177M	-1.756E-01		1.504E-01	2.337E-01	2.509E-02	-0.752
HF-181	-4.066E-02		3.445E-02	5.191E-02	5.591E-03	-0.783
W-181	-6.102E-01		2.805E-01	4.009E-01	2.972E-02	-1.522
TA-182	-1.039E-01		1.945E-01	3.037E-01	2.467E-02	-0.342
RE-183	7.816E-02		8.944E-02	1.525E-01	1.462E-02	0.512
RE-184	9.901E-03		2.048E-01	3.339E-01	4.685E-02	0.030
OS-185	-9.512E-03		3.849E-02	6.149E-02	5.935E-03	-0.155
RE-188	-1.362E-02		1.434E-01	2.395E-01	2.234E-02	-0.057
W-188	-1.277E+00		6.529E+00	9.208E+00	1.399E+00	-0.139
IR-192	-1.421E-03		2.898E-02	4.624E-02	6.646E-03	-0.031
AU-195	7.221E-02		1.683E-01	2.868E-01	2.530E-02	0.252
TL-200	-1.441E-04		1.794E-04	Half-Life too short		
TL-201	-9.789E-01		5.200E+00	8.606E+00	8.419E-01	-0.114
TL-202	3.285E-02		5.767E-02	1.001E-01	1.080E-02	0.328
BI-207	6.551E-03		5.057E-02	8.447E-02	7.588E-03	0.078
TL-207	4.812E-02		6.097E-01	8.722E-01	1.824E-01	0.055
PO-209	3.430E+00		6.599E+00	1.152E+01	1.134E+00	0.298
BI-210	-8.522E-01		2.072E+00	3.267E+00	3.042E-01	-0.261
PB-210	-8.522E-01		2.072E+00	3.267E+00	3.042E-01	-0.261
PO-210	-8.522E-01		2.072E+00	3.267E+00	2.754E-01	-0.261
PB-211	-6.295E-01		8.809E-01	1.266E+00	7.974E-01	-0.497
PO-215	4.812E-02		6.097E-01	8.722E-01	1.824E-01	0.055
RN-219	3.793E-01		3.412E-01	6.041E-01	9.852E-02	0.628
RN-220	3.100E+00		2.248E+01	3.750E+01	3.941E+00	0.083
RA-223	4.812E-02		6.097E-01	8.722E-01	1.824E-01	0.055
AC-227	-1.323E-01		3.344E-01	5.303E-01	1.011E-01	-0.249
TH-227	-1.323E-01		3.346E-01	5.303E-01	1.130E-01	-0.249
TH-229	6.353E-02		4.042E-01	6.734E-01	7.394E-02	0.094
PA-231	-4.153E-01		1.292E+00	2.041E+00	4.043E-01	-0.204
TH-231	4.812E-02		6.097E-01	8.722E-01	1.824E-01	0.055
U-231	-9.879E-02		8.827E-01	1.250E+00	1.120E-01	-0.079
PA-233	-2.199E-02		5.543E-02	8.641E-02	1.268E-02	-0.254
PA-234	-2.802E-03		2.648E-01	4.416E-01	8.508E-02	-0.006
PA-234M	5.793E+00		4.230E+00	7.716E+00	8.208E-01	0.751
TH-234	7.634E-01		9.635E-01	1.572E+00	2.735E-01	0.486
U-235	1.108E-02		1.697E-01	2.818E-01	4.982E-02	0.039
NP-236	3.141E-02		6.372E-02	1.087E-01	1.034E-02	0.289
U-238	7.634E-01		9.635E-01	1.572E+00	2.735E-01	0.486
NP-239	5.649E-03		1.437E-01	2.450E-01	2.073E-02	0.023
AM-241	-1.734E-02		1.026E-01	1.620E-01	1.273E-02	-0.107

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.984E-04		7.324E-02	1.254E-01	1.086E-02	-0.003
AM-246	8.536E-02		1.374E-01	2.381E-01	2.112E-02	0.359
CM-247	3.979E-02		3.100E-02	5.568E-02	5.960E-03	0.715
CF-249	4.004E-02		3.322E-02	5.958E-02	6.488E-03	0.672
CF-251	4.409E-02		9.663E-02	1.639E-01	1.670E-02	0.269

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246837001            *
* Acquisition date : 23-FEB-2010 12:05:24 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.02     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  8-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G246837001           Analyst initials: MXR1            *
* Batch Number     : 952641               Sample Quantity : 1.4480E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.591E+01	3.494E+00	2.061E-01	1.783E+00
CD-109	3.010E+00	7.703E-01	5.402E-01	3.930E-01
SN-126	2.959E-01	7.572E-02	5.328E-02	3.863E-02
HG-203	3.705E-02	4.221E-02	2.898E-02	2.154E-02
TL-208	5.406E-01	9.580E-02	2.503E-02	4.888E-02
BI-211	3.573E+00	5.941E-01	1.407E-01	3.031E-01
BI-212	1.392E+00	5.112E-01	1.902E-01	2.608E-01
PB-212	1.770E+00	2.631E-01	3.956E-02	1.342E-01
PO-212	1.770E+00	2.631E-01	3.956E-02	1.342E-01
BI-214	1.113E+00	1.786E-01	4.997E-02	9.111E-02
PB-214	1.243E+00	2.162E-01	4.904E-02	1.103E-01
PO-214	1.243E+00	2.162E-01	4.904E-02	1.103E-01
PO-216	1.770E+00	2.631E-01	3.956E-02	1.342E-01
PO-218	1.243E+00	2.162E-01	4.904E-02	1.103E-01
RA-224	4.857E+00	1.366E+00	4.502E-01	6.970E-01
RA-226	1.113E+00	1.786E-01	4.997E-02	9.111E-02
AC-228	1.935E+00	3.439E-01	9.225E-02	1.755E-01
RA-228	1.935E+00	3.439E-01	9.225E-02	1.755E-01
TH-228	1.797E+00	2.670E-01	4.015E-02	1.362E-01
TH-230	1.113E+00	1.786E-01	4.997E-02	9.111E-02
TH-232	1.935E+00	3.439E-01	9.225E-02	1.755E-01
U-234	1.113E+00	1.786E-01	4.997E-02	9.111E-02
NP-237	8.688E-01	2.834E-01	1.578E-01	1.446E-01
AM-243	3.610E-01	5.792E-02	3.356E-02	2.955E-02
ANH-511	1.349E-01	6.939E-02	2.111E-02	3.540E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.820E-01	2.545E-01	2.338E-01	1.298E-01	NOT IDENT.
NA-22	1.086E-02	4.090E-02	3.507E-02	2.087E-02	NOT IDENT.

NA-24	-4.932E+05	5.377E+05	0.000E+00	2.744E+05	SHORT HLIF
AL-26	-3.855E-03	2.643E-02	2.166E-02	1.349E-02	NOT IDENT.
TI-44	3.679E-01	4.721E-02	2.818E-02	2.409E-02	FAIL ABUN
SC-46	-5.115E-03	3.323E-02	2.856E-02	1.695E-02	FAIL ABUN
V-48	-2.254E-02	6.057E-02	5.043E-02	3.090E-02	NOT IDENT.
CR-51	2.401E-01	3.006E-01	2.666E-01	1.533E-01	NOT IDENT.
MN-52	-1.384E-01	1.934E-01	1.417E-01	9.865E-02	NOT IDENT.
MN-54	2.116E-03	3.049E-02	2.688E-02	1.556E-02	NOT IDENT.
CO-56	1.530E-02	3.377E-02	3.057E-02	1.723E-02	NOT IDENT.
CO-57	-1.610E-02	1.838E-02	1.629E-02	9.377E-03	NOT IDENT.
CO-58	-2.308E-02	3.286E-02	2.533E-02	1.676E-02	NOT IDENT.
FE-59	-4.062E-02	8.910E-02	7.298E-02	4.546E-02	NOT IDENT.
CO-60	1.504E-03	3.354E-02	2.809E-02	1.711E-02	NOT IDENT.
ZN-65	1.921E-02	9.063E-02	6.842E-02	4.624E-02	NOT IDENT.
GE-68	6.032E-01	1.157E+00	1.028E+00	5.902E-01	NOT IDENT.
AS-73	1.975E-04	5.256E-01	4.637E-01	2.682E-01	NOT IDENT.
AS-74	-1.895E-02	7.597E-02	6.404E-02	3.876E-02	NOT IDENT.
SE-75	-2.139E-02	4.037E-02	2.980E-02	2.060E-02	NOT IDENT.
BR-77	-3.287E+00	8.321E+00	7.038E+00	4.245E+00	FAIL ABUN
SR-82	-5.437E-01	3.439E-01	2.419E-01	1.755E-01	NOT IDENT.
RB-83	-2.697E-02	5.771E-02	4.855E-02	2.944E-02	NOT IDENT.
RB-84	-4.173E-02	5.979E-02	4.897E-02	3.051E-02	NOT IDENT.
KR-85	5.442E+00	6.713E+00	5.493E+00	3.425E+00	NOT IDENT.
SR-85	2.787E-02	3.438E-02	2.813E-02	1.754E-02	NOT IDENT.
RB-86	1.437E-01	7.367E-01	6.387E-01	3.759E-01	NOT IDENT.
Y-88	-2.522E-02	3.084E-02	2.193E-02	1.573E-02	NOT IDENT.
ZR-88	-1.587E-02	2.295E-02	1.958E-02	1.171E-02	NOT IDENT.
Y-91	-5.949E+00	1.790E+01	1.468E+01	9.133E+00	NOT IDENT.
NB-94	2.777E-02	3.029E-02	2.724E-02	1.546E-02	NOT IDENT.
NB-95	7.385E-03	4.326E-02	3.219E-02	2.207E-02	NOT IDENT.
NB-95M	1.239E-01	1.102E-01	9.086E-02	5.622E-02	NOT IDENT.
ZR-95	3.424E-02	6.393E-02	5.586E-02	3.262E-02	NOT IDENT.
NB-97	1.210E+04	7.785E+04	0.000E+00	3.972E+04	SHORT HLIF
ZR-97	1.211E+06	1.434E+06	0.000E+00	7.317E+05	SHORT HLIF
MO-99	-7.364E+00	9.845E+00	7.660E+00	5.023E+00	NOT IDENT.
TC-99M	4.971E+15	2.118E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.486E-03	2.688E-02	2.329E-02	1.372E-02	NOT IDENT.
RH-102	-1.880E-02	2.249E-02	1.849E-02	1.147E-02	NOT IDENT.
RU-103	9.578E-03	3.383E-02	3.015E-02	1.726E-02	FAIL ABUN
RH-106	-1.343E-01	2.667E-01	2.183E-01	1.360E-01	FAIL ABUN
RU-106	-1.343E-01	2.663E-01	2.183E-01	1.359E-01	FAIL ABUN
AG-108M	-4.512E-03	2.619E-02	2.296E-02	1.336E-02	NOT IDENT.
AG-110M	-1.159E-04	3.211E-02	2.731E-02	1.638E-02	NOT IDENT.
IN-111	-2.051E-01	8.839E-01	6.750E-01	4.510E-01	NOT IDENT.
IN-113M	-1.112E-02	3.376E-02	2.960E-02	1.723E-02	NOT IDENT.
SN-113	-1.112E-02	3.376E-02	2.960E-02	1.723E-02	NOT IDENT.
IN-114M	-2.896E-02	1.619E-01	1.277E-01	8.262E-02	NOT IDENT.
CD-115	-6.671E+00	9.055E+00	7.446E+00	4.620E+00	NOT IDENT.
SN-117M	-1.790E-02	4.329E-02	3.842E-02	2.208E-02	NOT IDENT.
SB-122	1.197E+00	1.705E+00	1.542E+00	8.698E-01	NOT IDENT.
I-123	-2.725E+06	3.914E+06	0.000E+00	1.997E+06	SHORT HLIF
TE-123M	-1.552E-02	2.230E-02	1.953E-02	1.138E-02	NOT IDENT.
I-124	9.242E-02	5.515E-01	4.792E-01	2.814E-01	NOT IDENT.
SB-124	7.409E-03	5.496E-02	4.781E-02	2.804E-02	FAIL ABUN
SB-125	3.159E-03	7.548E-02	6.720E-02	3.851E-02	FAIL ABUN
TE-125M	-4.042E-01	6.684E+00	6.192E+00	3.410E+00	NOT IDENT.
I-126	3.663E-02	1.633E-01	1.410E-01	8.329E-02	NOT IDENT.
SB-126	-3.948E-02	1.170E-01	9.556E-02	5.969E-02	FAIL ABUN
SB-127	1.123E+00	1.182E+00	1.069E+00	6.030E-01	NOT IDENT.
XE-127	3.684E-03	3.724E-02	3.310E-02	1.900E-02	NOT IDENT.
I-131	-2.778E-02	9.297E-02	7.619E-02	4.743E-02	NOT IDENT.
TE-132	1.773E-01	5.378E-01	4.780E-01	2.744E-01	NOT IDENT.
BA-133	2.927E-02	3.801E-02	3.023E-02	1.939E-02	FAIL ABUN
I-133	3.191E+03	4.856E+03	0.000E+00	2.477E+03	SHORT HLIF
CS-134	1.523E-01	5.930E-02	4.190E-02	3.025E-02	FAIL ABUN
CS-135	1.144E-01	1.449E-01	1.169E-01	7.394E-02	NOT IDENT.
I-135	-2.160E+14	4.173E+15	0.000E+00	2.129E+15	SHORT HLIF
CS-136	2.385E-02	1.028E-01	8.960E-02	5.246E-02	FAIL ABUN
BA-137M	-1.765E-02	3.243E-02	2.640E-02	1.654E-02	NOT IDENT.
CS-137	-1.866E-02	3.428E-02	2.791E-02	1.749E-02	NOT IDENT.
CE-139	1.635E-03	2.314E-02	2.088E-02	1.181E-02	NOT IDENT.
BA-140	1.282E-02	2.186E-01	1.907E-01	1.115E-01	NOT IDENT.
LA-140	-6.300E-02	7.076E-02	5.232E-02	3.610E-02	FAIL ABUN
CE-141	2.607E-02	4.894E-02	4.532E-02	2.497E-02	NOT IDENT.
CE-143	3.552E+02	1.455E+02	0.000E+00	7.424E+01	SHORT HLIF
CE-144	-1.402E-01	1.609E-01	1.411E-01	8.211E-02	NOT IDENT.
PM-144	9.607E-03	3.123E-02	2.701E-02	1.593E-02	NOT IDENT.
PR-144	6.509E-01	2.116E+00	1.830E+00	1.080E+00	NOT IDENT.

PM-146	1.327E-02	3.583E-02	3.199E-02	1.828E-02	NOT IDENT.
ND-147	3.184E-01	4.900E-01	4.424E-01	2.500E-01	FAIL ABUN
PM-149	4.770E+01	7.141E+01	6.317E+01	3.643E+01	NOT IDENT.
EU-152	-5.371E-02	8.022E-02	6.427E-02	4.093E-02	FAIL ABUN
GD-153	-3.132E-02	6.913E-02	5.164E-02	3.527E-02	FAIL ABUN
EU-154	3.322E-02	1.145E-01	9.841E-02	5.843E-02	NOT IDENT.
EU-155	1.592E-01	8.112E-02	7.942E-02	4.139E-02	FAIL ABUN
TB-160	-3.543E-02	1.168E-01	9.916E-02	5.958E-02	FAIL ABUN
HO-166M	7.065E-03	5.250E-02	4.478E-02	2.679E-02	NOT IDENT.
TM-171	6.755E+00	1.937E+01	1.706E+01	9.884E+00	NOT IDENT.
LU-176	-1.328E-02	2.042E-02	1.661E-02	1.042E-02	FAIL ABUN
LU-177	2.862E+00	1.242E+00	8.561E-01	6.337E-01	FAIL ABUN
LU-177M	-1.756E-01	1.474E-01	1.209E-01	7.520E-02	NOT IDENT.
HF-181	-4.066E-02	3.376E-02	2.678E-02	1.722E-02	NOT IDENT.
W-181	-6.102E-01	2.749E-01	2.159E-01	1.403E-01	NOT IDENT.
TA-182	-1.039E-01	1.906E-01	1.534E-01	9.725E-02	FAIL ABUN
RE-183	7.816E-02	8.766E-02	8.057E-02	4.472E-02	FAIL ABUN
RE-184	9.901E-03	2.007E-01	1.747E-01	1.024E-01	NOT IDENT.
OS-185	-9.512E-03	3.772E-02	3.151E-02	1.925E-02	NOT IDENT.
RE-188	-1.362E-02	1.405E-01	1.266E-01	7.169E-02	NOT IDENT.
W-188	-1.277E+00	6.399E+00	4.803E+00	3.265E+00	NOT IDENT.
IR-192	-1.421E-03	2.840E-02	2.407E-02	1.449E-02	FAIL ABUN
AU-195	7.221E-02	1.650E-01	1.531E-01	8.417E-02	FAIL ABUN
TL-200	-1.441E+02	3.516E+02	0.000E+00	1.794E+02	SHORT HLIF
TL-201	-9.789E-01	5.096E+00	4.543E+00	2.600E+00	NOT IDENT.
TL-202	3.285E-02	5.651E-02	5.175E-02	2.883E-02	NOT IDENT.
BI-207	6.551E-03	4.956E-02	4.280E-02	2.529E-02	FAIL ABUN
TL-207	4.812E-02	5.975E-01	4.539E-01	3.048E-01	FAIL ABUN
PO-209	3.430E+00	6.467E+00	5.859E+00	3.299E+00	NOT IDENT.
BI-210	-8.522E-01	2.031E+00	1.771E+00	1.036E+00	NOT IDENT.
PB-210	-8.522E-01	2.031E+00	1.771E+00	1.036E+00	NOT IDENT.
PO-210	-8.522E-01	2.031E+00	1.771E+00	1.036E+00	NOT IDENT.
PB-211	-6.295E-01	8.633E-01	6.556E-01	4.404E-01	NOT IDENT.
PO-215	4.812E-02	5.975E-01	4.539E-01	3.048E-01	FAIL ABUN
RN-219	3.793E-01	3.343E-01	3.129E-01	1.706E-01	FAIL ABUN
RN-220	3.100E+00	2.203E+01	1.929E+01	1.124E+01	NOT IDENT.
RA-223	4.812E-02	5.975E-01	4.539E-01	3.048E-01	FAIL ABUN
AC-227	-1.323E-01	3.277E-01	2.774E-01	1.672E-01	FAIL ABUN
TH-227	-1.323E-01	3.279E-01	2.774E-01	1.673E-01	FAIL ABUN
TH-229	6.353E-02	3.961E-01	3.544E-01	2.021E-01	FAIL ABUN
PA-231	-4.153E-01	1.266E+00	1.065E+00	6.461E-01	FAIL ABUN
TH-231	4.812E-02	5.975E-01	4.539E-01	3.048E-01	FAIL ABUN
U-231	-9.879E-02	8.650E-01	6.678E-01	4.413E-01	FAIL ABUN
PA-233	-2.199E-02	5.432E-02	4.501E-02	2.771E-02	FAIL ABUN
PA-234	-2.802E-03	2.595E-01	2.243E-01	1.324E-01	FAIL ABUN
PA-234M	5.793E+00	4.146E+00	3.915E+00	2.115E+00	NOT IDENT.
TH-234	7.634E-01	9.442E-01	8.469E-01	4.817E-01	FAIL ABUN
U-235	1.108E-02	1.664E-01	1.493E-01	8.487E-02	FAIL ABUN
NP-236	3.141E-02	6.245E-02	5.741E-02	3.186E-02	NOT IDENT.
U-238	7.634E-01	9.442E-01	8.469E-01	4.817E-01	FAIL ABUN
NP-239	5.649E-03	1.408E-01	1.303E-01	7.186E-02	FAIL ABUN
AM-241	-1.734E-02	1.005E-01	8.738E-02	5.128E-02	NOT IDENT.
CM-243	-3.984E-04	7.178E-02	6.687E-02	3.662E-02	FAIL ABUN
AM-246	8.536E-02	1.347E-01	1.206E-01	6.871E-02	NOT IDENT.
CM-247	3.979E-02	3.038E-02	2.884E-02	1.550E-02	FAIL ABUN
CF-249	4.004E-02	3.255E-02	3.089E-02	1.661E-02	NOT IDENT.
CF-251	4.409E-02	9.469E-02	8.643E-02	4.831E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	263.1707
46.50	263.1707
46.50	263.1707
48.70	266.3013
49.72	248.5376
51.35	267.5964
52.39	260.7506
52.97	272.3633
53.15	272.5231
53.44	290.5933
54.07	292.3004
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56.28	325.8141
57.37	0.0000
57.53	294.3727
57.53	294.3747
57.60	294.4364
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57.98	291.3926
59.32	299.3868
59.32	299.3868
59.40	299.4593
59.54	324.5506
59.72	338.3511
60.01	352.2829
61.10	394.4715
61.14	394.5177
61.30	452.8827
63.00	339.3492
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63.29	362.5820
63.58	376.6662
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65.12	502.8976
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65.20	506.4726
66.05	360.8167
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66.83	365.0815
66.91	365.1608
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67.20	399.1016
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67.85	382.3842
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68.90	430.1106
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75.70	391.6132
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77.11	393.0155

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80.30	379.3389
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81.07	380.0549
81.07	380.0549
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83.78	429.3493
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83.78	429.3493
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84.90	430.4911
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86.50	432.1066
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86.79	432.3961
86.94	432.5476
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87.30	432.9102
87.30	432.9102
87.30	432.9102
87.30	432.9102
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87.30	432.9102
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88.47	332.9008
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92.38	332.5570
92.38	332.5570
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94.00	333.7488
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94.67	317.6934
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94.90	317.8516
94.90	317.8516
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98.44	308.6043
98.44	308.6062
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99.55	275.8896
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100.00	276.1514
100.10	287.0929
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103.76	308.6747
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105.31	258.0418
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109.28	287.3845

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111.00	268.6763
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116.30	257.5898
117.00	276.9710
117.00	276.9710
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121.78	280.3052
122.06	275.2068
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122.32	284.9515
122.32	284.9515
122.32	284.9515
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144.24	263.1724
144.24	263.1724
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147.16	269.8760
152.43	273.9548
152.70	265.7928
153.22	260.4847
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154.21	280.2376
154.21	280.2376
154.21	280.2376
155.03	309.2047
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162.64	258.6111
163.35	291.5923
163.89	278.7293
165.85	255.1411
167.43	238.8020
171.28	222.1628
171.86	242.2135
172.10	242.2969
176.55	214.2883
176.60	214.3044
181.06	244.9474
184.41	228.1544
185.71	270.9867
186.00	271.0896
190.27	256.1340
192.34	246.1284
193.63	229.9742
197.04	217.2847
198.01	237.1528
198.60	238.3108
200.40	247.7036
201.83	209.7455
202.84	237.6193
205.31	212.1434

208.36	241.2350
208.81	235.4088
209.75	220.7625
209.75	220.7625
210.97	206.1535
215.65	224.3441
216.55	206.5385
218.09	227.0070
222.10	229.0898
223.80	226.5111
226.40	230.2351
227.00	229.3795
227.08	229.4002
227.20	219.2805
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228.18	203.2654
228.18	203.2654
231.56	0.0000
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236.00	193.7911
236.00	193.7911
238.63	211.8403
238.63	211.8403
238.63	211.8403
238.63	211.8403
239.00	211.9262
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241.98	212.6240
241.98	212.6240
241.98	212.6240
244.69	177.0204
245.39	175.6004
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248.90	184.0653
249.79	202.9762
252.40	178.4903
252.85	199.4616
252.85	199.4616
254.15	0.0000
256.20	204.3588
256.20	204.3588
260.50	151.5879
260.90	156.9150
262.80	176.2178
264.65	179.1937
268.24	168.7078
268.79	178.3564
269.46	178.4795
269.46	178.4795
269.46	178.4795
269.46	178.4795
271.23	178.7974
273.65	176.0275
276.40	175.4412
277.35	183.1000
277.60	191.1779
277.60	191.1779
278.00	191.2542
278.60	180.1099
279.20	175.3886
279.53	175.4452
280.46	124.0511
281.68	169.0399
283.67	166.9958
284.30	166.0187
285.00	140.2409
285.90	139.2828
286.10	141.4689
286.10	141.4689
287.40	152.4603
288.45	0.0000
290.67	148.0555
290.80	146.4478
291.72	149.8313
293.26	0.0000
293.70	137.0588
295.21	168.6259
295.21	168.6259

295.21	168.6259
295.96	170.0537
296.50	134.1484
297.23	170.2568
298.57	170.4695
299.80	153.5968
299.80	153.5968
300.09	153.6396
300.09	153.6396
300.09	153.6396
300.09	153.6396
300.12	153.6425
301.29	142.9627
302.84	134.9391
303.76	135.0543
303.91	126.8357
304.40	130.1904
304.40	130.1904
304.84	137.1678
306.84	154.1532
308.46	144.4566
311.98	154.8739
316.51	138.8423
318.01	145.6986
319.02	134.6972
319.41	134.7440
320.08	119.2234
323.87	134.1553
323.87	134.1553
323.87	134.1553
323.87	134.1553
325.23	110.8090
328.77	166.7241
333.44	157.2497
334.20	150.5840
334.20	150.5840
334.30	150.5976
338.28	138.0890
338.28	138.0890
338.28	138.0890
338.28	138.0890
338.32	138.0939
338.32	138.0939
338.32	138.0939
340.50	127.5742
340.57	127.5833
344.27	138.7864
345.85	121.6536
350.59	0.0000
351.07	130.4163
351.92	130.5067
351.92	130.5067
351.92	130.5067
355.39	0.0000
356.01	99.9300
364.48	115.6453
366.43	92.6595
367.43	110.1201
367.94	0.0000
369.80	135.8763
374.96	136.4262
383.85	126.7998
387.95	104.2295
388.63	107.8185
391.69	112.4970
391.69	112.4970
392.90	113.4844
398.62	128.2170
400.65	123.9496
401.10	111.5036
401.81	99.9602
402.60	101.8044
404.84	140.4342
410.95	127.5825
411.60	132.1376
413.65	143.1354
414.70	123.4246
415.30	107.2536

415.76	109.9947
417.63	0.0000
418.52	94.8550
423.70	112.4318
427.08	106.3365
427.89	110.9441
432.53	104.9171
433.93	105.9321
439.47	99.0055
439.56	99.0104
439.89	101.7844
443.98	110.3448
444.90	103.0535
445.03	103.0620
445.03	103.0620
445.03	103.0620
445.03	103.0620
453.90	91.6463
463.38	81.9763
468.07	98.6745
473.00	85.3042
475.06	97.6206
475.35	98.5769
476.78	79.8743
477.59	81.7961
477.96	78.9948
482.03	105.5999
484.57	82.1612
487.03	87.0179
490.36	0.0000
492.35	95.8511
497.08	92.3273
507.63	0.0000
510.53	0.0000
510.84	100.7903
511.00	100.7999
511.85	100.8528
511.85	100.8528
513.99	100.0208
513.99	100.0208
520.41	98.4763
520.65	94.6295
527.90	106.6766
528.96	0.0000
529.64	90.2811
529.87	0.0000
531.02	89.3833
537.32	91.6649
543.00	87.0770
546.56	0.0000
549.76	87.4165
552.65	82.6414
555.20	86.7029
563.23	83.1361
563.90	83.1669
568.70	82.3997
569.32	93.3517
569.50	90.3807
569.67	90.3890
573.80	78.6504
574.00	69.6967
574.64	70.7183
578.91	67.0913
579.30	0.0000
583.14	82.0576
585.48	97.7906
591.81	85.4591
592.07	81.4499
593.00	74.4471
595.88	87.6611
600.56	104.0436
602.52	0.0000
602.71	91.0162
602.71	91.0162
603.60	87.6849
604.41	97.1719
604.70	90.7074
609.31	92.3497

609.31	92.3497
609.31	92.3497
609.31	92.3497
610.33	82.8526
612.46	105.7170
614.37	99.3097
618.01	78.4969
621.84	84.7832
621.84	84.7832
631.29	73.9050
633.02	76.0257
633.10	76.0280
634.78	77.1217
635.90	80.2518
636.97	76.1770
645.85	93.0652
646.12	86.8711
656.30	67.5648
657.75	93.6172
657.90	0.0000
661.65	100.0518
661.65	100.0518
664.57	0.0000
666.33	89.8344
666.33	89.8344
675.00	93.3620
677.61	73.5226
685.20	68.5210
692.80	85.6967
695.00	91.0811
696.49	86.9048
696.49	86.9048
697.00	81.6269
697.49	85.8870
698.33	90.1646
698.50	90.1698
699.00	97.6180
702.63	77.5915
706.10	102.2021
706.58	0.0000
706.67	94.7744
709.31	78.8983
711.68	75.7842
713.82	79.0631
717.42	63.1430
720.50	72.8767
721.93	0.0000
722.20	65.2123
722.78	66.9456
722.78	66.9456
722.89	66.9494
722.95	66.9513
723.30	58.3761
724.18	54.9641
727.18	65.5739
733.00	68.9805
735.90	55.2578
739.58	79.9958
742.81	51.9653
744.21	53.0808
747.13	73.7587
751.79	88.0400
752.31	85.8879
753.82	68.5371
755.35	77.2922
756.15	70.7863
756.87	68.6294
763.93	61.1936
765.79	83.9906
766.42	77.0129
766.84	80.5270
776.49	93.3890
778.00	64.8661
778.57	71.4806
778.89	65.9912
783.80	68.7756
785.46	86.4702
792.07	61.9387

795.84	54.9478
796.30	53.1855
798.80	65.6642
801.93	50.7729
805.60	70.0790
810.29	63.5284
810.76	66.8848
815.85	63.6745
817.79	48.0732
818.51	53.6792
819.60	63.7736
826.30	59.4616
828.27	0.0000
831.60	74.2057
831.96	74.2178
834.83	68.4501
836.80	0.0000
846.75	62.4437
848.13	76.0614
856.28	0.0000
856.80	53.0027
860.37	49.1353
867.32	57.7855
867.82	53.8418
871.10	74.0134
873.19	74.0747
874.81	61.3092
875.33	0.0000
876.40	65.9268
879.36	63.2522
880.27	70.6103
880.51	70.6169
881.50	64.2219
883.24	50.4937
884.67	68.8934
889.25	62.5730
896.60	58.1366
898.02	60.0139
899.00	67.4252
903.28	60.1345
911.07	58.4565
911.07	58.4565
911.07	58.4565
919.63	64.2293
920.93	60.5344
925.00	51.2993
925.24	56.9016
926.50	56.9284
935.52	63.6720
937.48	60.9073
944.10	48.8439
946.00	61.0978
949.00	68.6924
962.29	59.8837
964.01	56.7671
966.15	56.8096
968.20	56.8521
969.11	56.8711
969.11	56.8711
969.11	56.8711
977.42	61.7928
980.50	56.1494
983.50	61.9261
989.30	54.4144
996.32	62.2054
1001.03	50.8042
1001.68	53.6922
1004.76	80.6244
1021.30	0.0000
1024.50	0.0000
1034.80	68.8506
1036.00	72.7588
1037.82	61.1543
1038.57	63.1116
1038.76	0.0000
1045.16	71.0396
1046.59	59.3886
1048.07	68.1851

1050.47	67.2649
1050.47	67.2649
1062.04	64.5885
1063.62	67.5580
1076.63	64.8979
1077.35	59.9962
1078.86	61.0101
1085.78	61.1463
1099.22	80.2327
1112.02	59.6748
1112.84	69.6411
1115.52	64.7207
1120.29	62.8247
1120.29	62.8247
1120.29	62.8247
1120.29	62.8247
1120.51	62.8277
1121.28	62.8431
1124.00	0.0000
1129.67	71.0104
1131.51	0.0000
1147.95	0.0000
1167.94	67.8081
1173.22	68.9297
1175.09	62.8840
1177.93	66.9990
1189.05	77.4102
1204.90	83.9179
1205.75	0.0000
1213.00	94.3764
1221.42	92.5532
1230.97	96.9375
1235.34	117.7128
1236.41	0.0000
1238.25	93.0103
1246.25	65.2579
1260.41	0.0000
1271.85	46.9556
1274.45	55.3446
1274.54	55.3446
1291.56	46.1678
1298.22	0.0000
1312.09	50.6531
1325.50	39.1896
1325.50	39.1896
1332.49	36.0802
1333.61	48.8301
1360.21	29.9359
1362.66	0.0000
1365.15	19.2700
1368.21	31.0716
1368.53	0.0000
1376.25	28.9907
1384.27	32.2793
1394.10	11.8664
1395.20	10.7910
1407.95	43.3066
1434.06	30.5197
1436.60	18.5415
1457.56	0.0000
1460.81	19.7534
1489.15	20.2616
1509.49	18.5124
1596.49	29.2959
1620.62	13.3044
1678.03	0.0000
1691.02	11.5859
1691.02	11.5859
1706.46	0.0000
1750.46	0.0000
1764.49	9.8104
1764.49	9.8104
1764.49	9.8104
1764.49	9.8104
1770.23	16.8387
1771.40	16.8429
1791.20	0.0000
1808.65	15.8438

1836.01 20.9128

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246837001

Total Uranium Activity	2.2762E+00	ug/g
Total Uranium Counting Unc.	2.8100E+00	ug/g
Total Uranium Tpu	1.4337E-06	ug/g
Total Uranium Mda	2.5205E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 952641                    SAMPLE ID   : G246837001      *
*   ANALYST       : MXR1                      DETECTOR    : GAM11           *
*   SAMPLE DATE   :  8-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 12:05:24.97    SAMPLE ALQT:  144.800 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.032E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.304E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.166E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.536E+00
```

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:06:49.46

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837002.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:05:50
Sample ID         : G246837002           Sample quantity  : 1.26400E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.33  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.47*	65	289	1.08	125.86	122	7	8.99E-03	46.9	
2	2	75.16*	226	440	1.38	149.25	145	27	3.14E-02	17.7	1.21E+00
3	2	77.38*	385	368	1.18	153.68	145	27	5.34E-02	10.3	
4	0	88.42	222	552	2.95	175.77	171	11	3.08E-02	21.6	
5	0	93.29*	209	369	1.40	185.50	182	9	2.91E-02	19.3	
6	0	129.10	102	461	1.39	257.12	252	12	1.42E-02	43.1	
7	0	186.03*	185	265	1.62	370.98	367	9	2.57E-02	18.5	
8	0	209.38	107	223	1.43	417.67	414	8	1.48E-02	26.3	
9	3	238.73*	1101	169	1.25	476.36	469	18	1.53E-01	3.8	1.14E+00
10	3	241.54	275	210	1.97	481.99	469	18	3.82E-02	14.5	
11	0	295.32*	326	203	1.52	589.55	584	12	4.53E-02	10.6	
12	0	328.12	100	169	1.37	655.14	651	11	1.39E-02	27.0	
13	0	338.09	210	166	1.15	675.08	670	11	2.92E-02	13.7	
14	0	351.89*	563	198	1.40	702.67	695	16	7.82E-02	7.1	
15	0	511.06*	102	152	2.47	1021.03	1013	17	1.42E-02	33.0	
16	0	583.07*	317	123	1.60	1165.06	1159	14	4.40E-02	9.7	
17	0	609.29*	359	159	1.62	1217.51	1211	16	4.98E-02	9.8	
18	0	726.92*	90	94	1.80	1452.77	1447	16	1.25E-02	26.4	
19	0	910.90*	254	32	1.43	1820.79	1814	14	3.53E-02	8.1	
20	0	968.92*	104	111	1.85	1936.85	1929	12	1.45E-02	22.7	
21	0	1121.10*	56	109	1.84	2241.28	2232	17	7.78E-03	45.5	
22	0	1460.18*	1311	46	2.01	2919.61	2909	20	1.82E-01	3.1	
23	0	1587.87	26	15	1.47	3175.09	3169	10	3.62E-03	34.0	
24	0	1763.80*	64	17	2.81	3527.09	3518	17	8.82E-03	20.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 14:06:52

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 8-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 12:05:50
Sample ID : G246837002 Sample quantity : 126.40 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.33 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.777E+01	4.369E+00	6.658E-01	6.542E-02	56.728
CD-109	+	88.03	*	3.992E+00	1.792E+00	1.712E+00	2.125E-01	2.332
SN-126	+	64.28		1.088E+00	1.037E+00	1.463E+00	2.477E-01	0.743
	+	86.94		1.631E+00	9.860E-01	6.389E-01	2.701E-01	2.554
	+	87.57	*	3.924E-01	1.762E-01	1.520E-01	1.881E-02	2.581
TL-208		277.35		5.311E-01	5.227E-01	8.902E-01	1.244E-01	0.597
	+	510.84		5.811E-01	3.903E-01	2.636E-01	3.164E-02	2.205
	+	583.14	*	5.100E-01	1.090E-01	6.942E-02	6.357E-03	7.346
		860.37		3.035E-01	3.796E-01	6.642E-01	6.496E-02	0.457
BI-211		72.87		8.952E+00	5.207E+00	7.985E+00	9.145E-01	1.121
	+	351.07	*	4.114E+00	7.148E-01	4.078E-01	4.061E-02	10.086
PB-212	+	74.81		1.917E+00	7.345E-01	8.158E-01	1.209E-01	2.351
	+	77.11		1.806E+00	4.267E-01	4.498E-01	5.214E-02	4.016
	+	87.30		1.815E+00	8.349E-01	7.064E-01	1.122E-01	2.570
	+	238.63	*	1.782E+00	2.510E-01	1.166E-01	1.389E-02	15.276
		300.09		1.284E+00	1.151E+00	1.757E+00	2.122E-01	0.730
PO-212	+	74.81		1.917E+00	7.345E-01	8.158E-01	1.209E-01	2.351
	+	77.11		1.806E+00	4.267E-01	4.498E-01	5.214E-02	4.016
	+	87.30		1.815E+00	8.349E-01	7.064E-01	1.122E-01	2.570
		115.19		1.596E+00	4.608E+00	7.600E+00	7.692E-01	0.210
	+	238.63	*	1.782E+00	2.510E-01	1.166E-01	1.389E-02	15.276
		300.09		1.284E+00	1.151E+00	1.757E+00	2.122E-01	0.730
BI-214	+	609.31	*	1.087E+00	2.378E-01	1.467E-01	1.455E-02	7.409
	+	1120.29		8.989E-01	8.236E-01	5.579E-01	6.014E-02	1.611
	+	1764.49		1.396E+00	5.856E-01	3.821E-01	3.350E-02	3.652
PB-214	+	74.81		3.304E+00	1.252E+00	1.406E+00	1.923E-01	2.351
	+	77.11		3.096E+00	7.686E-01	7.710E-01	1.070E-01	4.016
	+	87.30		3.109E+00	1.417E+00	1.210E+00	1.761E-01	2.570
	+	241.98		2.674E+00	8.429E-01	6.788E-01	8.399E-02	3.939
	+	295.21		1.422E+00	3.479E-01	3.015E-01	3.716E-02	4.719
	+	351.92	*	1.431E+00	2.596E-01	1.421E-01	1.595E-02	10.067
PO-214	+	74.81		3.304E+00	1.252E+00	1.406E+00	1.923E-01	2.351
	+	77.11		3.096E+00	7.686E-01	7.710E-01	1.070E-01	4.016
	+	87.30		3.109E+00	1.417E+00	1.210E+00	1.761E-01	2.570

Sample ID : G246837002 Acquisition date : 23-FEB-2010 12:05:50

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.674E+00	8.429E-01	6.788E-01	8.399E-02	3.939
	+	295.21		1.422E+00	3.479E-01	3.015E-01	3.716E-02	4.719
	+	351.92	*	1.431E+00	2.596E-01	1.421E-01	1.595E-02	10.067
PO-216	+	74.81		1.917E+00	7.345E-01	8.158E-01	1.209E-01	2.351
	+	77.11		1.806E+00	4.267E-01	4.498E-01	5.214E-02	4.016
	+	87.30		1.815E+00	8.349E-01	7.064E-01	1.122E-01	2.570
	+	238.63	*	1.782E+00	2.510E-01	1.166E-01	1.389E-02	15.276
		300.09		1.284E+00	1.151E+00	1.757E+00	2.122E-01	0.730
PO-218	+	74.81		3.304E+00	1.252E+00	1.406E+00	1.923E-01	2.351
	+	77.11		3.096E+00	7.686E-01	7.710E-01	1.070E-01	4.016
	+	87.30		3.109E+00	1.417E+00	1.210E+00	1.761E-01	2.570
	+	241.98		2.674E+00	8.429E-01	6.788E-01	8.399E-02	3.939
	+	295.21		1.422E+00	3.479E-01	3.015E-01	3.716E-02	4.719
	+	351.92	*	1.431E+00	2.596E-01	1.421E-01	1.595E-02	10.067
RA-224	+	240.98	*	5.070E+00	1.573E+00	1.327E+00	1.463E-01	3.821
RA-226	+	609.31	*	1.087E+00	2.378E-01	1.467E-01	1.455E-02	7.409
	+	1120.29		8.989E-01	8.236E-01	5.579E-01	6.014E-02	1.611
	+	1764.49		1.396E+00	5.856E-01	3.821E-01	3.350E-02	3.652
AC-228	+	338.32		1.696E+00	8.440E-01	5.070E-01	2.106E-01	3.345
	+	911.07	*	1.822E+00	3.646E-01	2.672E-01	3.148E-02	6.819
	+	969.11		1.320E+00	6.764E-01	4.235E-01	9.975E-02	3.118
RA-228	+	338.32		1.696E+00	8.440E-01	5.070E-01	2.106E-01	3.345
	+	911.07	*	1.822E+00	3.646E-01	2.672E-01	3.148E-02	6.819
	+	969.11		1.320E+00	6.764E-01	4.235E-01	9.975E-02	3.118
TH-228	+	74.81		1.946E+00	7.234E-01	8.281E-01	9.571E-02	2.351
	+	77.11		1.833E+00	4.332E-01	4.565E-01	5.292E-02	4.016
	+	87.30		1.842E+00	8.272E-01	7.170E-01	8.853E-02	2.570
	+	238.63	*	1.808E+00	2.548E-01	1.184E-01	1.410E-02	15.276
		300.09		1.303E+00	1.394E+00	1.784E+00	1.063E+00	0.730
TH-230	+	609.31	*	1.087E+00	2.378E-01	1.467E-01	1.455E-02	7.409
	+	1120.29		8.989E-01	8.236E-01	5.579E-01	6.014E-02	1.611
	+	1764.49		1.396E+00	5.856E-01	3.821E-01	3.350E-02	3.652
TH-232	+	338.32		1.696E+00	4.940E-01	5.070E-01	4.998E-02	3.345
	+	911.07	*	1.822E+00	3.646E-01	2.672E-01	3.148E-02	6.819
	+	969.11		1.320E+00	6.764E-01	4.235E-01	9.975E-02	3.118
TH-234	+	63.29	*	2.748E+00	2.634E+00	3.860E+00	7.520E-01	0.712
	+	92.38		2.364E+00	1.024E+00	1.097E+00	2.162E-01	2.155
U-234	+	609.31	*	1.087E+00	2.378E-01	1.467E-01	1.455E-02	7.409
	+	1120.29		8.989E-01	8.236E-01	5.579E-01	6.014E-02	1.611
	+	1764.49		1.396E+00	5.856E-01	3.821E-01	3.350E-02	3.652
U-238	+	63.29	*	2.748E+00	2.634E+00	3.860E+00	7.520E-01	0.712
	+	92.38		2.364E+00	9.522E-01	1.097E+00	1.279E-01	2.155
AM-243	+	74.67	*	3.109E-01	1.155E-01	1.298E-01	1.493E-02	2.395
		86.72		4.359E+01	1.823E+01	2.186E+01	2.687E+00	1.994
		117.66		-3.750E+00	4.999E+00	7.861E+00	7.930E-01	-0.477
		142.18		6.520E+00	2.278E+01	3.724E+01	3.780E+00	0.175
ANH-511	+	511.00	*	1.255E-01	8.365E-02	5.694E-02	4.920E-03	2.204

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.366E-01	3.992E-01	6.660E-01	6.192E-02	0.205

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	-2.863E-02	6.211E-02	9.581E-02	8.704E-03	-0.299
NA-24		1368.53	*	-2.947E-01	6.211E-02	Half-Life too short		
AL-26		1129.67		5.915E-01	2.377E+00	3.677E+00	3.106E-01	0.161
		1808.65	*	-4.526E-03	3.916E-02	6.293E-02	5.383E-03	-0.072
TI-44		67.85		-2.061E-03	8.148E-02	1.245E-01	1.420E-02	-0.017
	+	78.38	*	3.333E-01	7.875E-02	1.119E-01	1.304E-02	2.978
SC-46		889.25	*	-9.976E-03	4.898E-02	7.942E-02	7.380E-03	-0.126
	+	1120.51		1.537E-01	1.405E-01	1.581E-01	1.344E-02	0.973
V-48		944.10		3.863E-01	1.110E+00	1.883E+00	1.741E-01	0.205
		983.50	*	-8.849E-02	9.735E-02	1.464E-01	1.339E-02	-0.604
		1312.09		1.030E-01	1.106E-01	1.949E-01	1.837E-02	0.529
CR-51		320.08	*	1.835E-02	4.940E-01	8.217E-01	8.725E-02	0.022
MN-52		744.21		2.990E-01	2.772E-01	4.992E-01	4.321E-02	0.599
		848.13		5.800E-01	8.242E+00	1.373E+01	1.254E+00	0.042
		935.52		3.113E-01	3.366E-01	5.932E-01	5.495E-02	0.525
		1246.25		-2.009E+00	9.336E+00	1.480E+01	1.304E+00	-0.136
		1333.61		-2.289E+00	7.244E+00	1.126E+01	1.082E+00	-0.203
		1434.06	*	-6.247E-02	2.770E-01	4.476E-01	4.308E-02	-0.140
MN-54		834.83	*	1.291E-02	4.667E-02	7.900E-02	7.169E-03	0.163
CO-56		846.75	*	-1.726E-02	4.935E-02	7.928E-02	7.235E-03	-0.218
		977.42		4.049E+00	3.636E+00	6.541E+00	5.992E-01	0.619
		1037.82		-1.384E-01	4.077E-01	6.459E-01	6.062E-02	-0.214
		1175.09		1.267E+00	2.777E+00	4.701E+00	3.834E-01	0.270
		1238.25		1.361E-01	1.214E-01	2.130E-01	1.914E-02	0.639
		1360.21		2.162E-01	1.181E+00	2.019E+00	1.944E-01	0.107
		1771.40		-8.853E-01	3.889E-01	3.842E-01	3.357E-02	-2.304
CO-57		122.06	*	2.231E-03	3.295E-02	5.369E-02	5.408E-03	0.042
		136.48		2.050E-02	2.785E-01	4.523E-01	4.809E-02	0.045
CO-58		810.76	*	-2.345E-02	4.716E-02	7.485E-02	6.729E-03	-0.313
FE-59		142.65		-7.510E-01	3.586E+00	5.663E+00	5.751E-01	-0.133
		192.34		6.572E-01	1.340E+00	2.111E+00	3.160E-01	0.311
		1099.22	*	-6.310E-02	1.217E-01	1.887E-01	1.761E-02	-0.334
		1291.56		3.924E-02	1.641E-01	2.715E-01	2.805E-02	0.144
CO-60		1173.22		2.014E-03	5.841E-02	9.519E-02	7.748E-03	0.021
		1332.49	*	1.196E-02	5.558E-02	9.165E-02	8.811E-03	0.131
ZN-65		1115.52	*	-4.981E-02	1.375E-01	1.826E-01	1.561E-02	-0.273
GE-68		1077.35	*	-1.027E+00	1.742E+00	2.692E+00	2.356E-01	-0.382
AS-73		53.44	*	9.490E-01	2.027E+00	3.424E+00	4.445E-01	0.277
AS-74		595.88	*	1.949E-02	1.177E-01	1.922E-01	1.633E-02	0.101
		634.78		-1.143E-01	4.497E-01	7.071E-01	5.905E-02	-0.162
SE-75		66.05		3.741E+00	9.274E+00	1.370E+01	1.760E+00	0.273
		96.73		-1.777E-01	1.156E+00	1.643E+00	2.519E-01	-0.108
		121.11		3.277E-02	1.762E-01	2.885E-01	3.568E-02	0.114
		136.00		2.937E-02	5.331E-02	8.522E-02	8.627E-03	0.345
		198.60		1.919E+00	2.421E+00	3.921E+00	4.576E-01	0.489
		264.65	*	-1.256E-02	5.662E-02	9.369E-02	1.027E-02	-0.134
		279.53		3.782E-02	1.494E-01	2.520E-01	2.789E-02	0.150
		303.91		-3.367E+00	2.919E+00	4.533E+00	5.870E-01	-0.743
		400.65		2.474E-01	3.352E-01	5.728E-01	6.292E-02	0.432

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	87.88		8.347E+02	3.748E+02	4.281E+02	5.311E+01	1.950
		200.40		6.801E+01	2.111E+02	3.420E+02	3.736E+01	0.199
	+	239.00		2.768E+02	3.698E+01	4.527E+01	4.994E+00	6.116
		249.79		-1.142E+00	8.492E+01	1.423E+02	1.566E+01	-0.008
		281.68		-9.030E+01	1.203E+02	1.933E+02	2.085E+01	-0.467
		297.23		2.946E+02	9.667E+01	1.545E+02	1.638E+01	1.907
		303.76		-2.812E+02	2.397E+02	3.733E+02	3.922E+01	-0.753
		439.47		4.115E+01	1.698E+02	2.825E+02	2.421E+01	0.146
		484.57		-3.793E+01	2.859E+02	4.616E+02	3.986E+01	-0.082
		520.65	*	5.662E+00	1.160E+01	1.955E+01	1.688E+00	0.290
		574.64		1.006E+02	2.421E+02	3.939E+02	3.369E+01	0.255
		578.91		-1.567E+00	1.133E+02	1.575E+02	1.346E+01	-0.010
		585.48		1.418E+03	3.311E+02	5.666E+02	4.831E+01	2.502
		755.35		-3.706E+00	1.857E+02	3.090E+02	2.691E+01	-0.012
		817.79		6.782E+01	1.604E+02	2.753E+02	2.478E+01	0.246
SR-82		698.33		-4.404E+00	4.343E+01	7.217E+01	6.077E+00	-0.061
		776.49	*	-2.951E-01	4.497E-01	7.059E-01	6.220E-02	-0.418
		1395.20		5.070E+00	1.240E+01	2.179E+01	2.099E+00	0.233
RB-83		520.41	*	4.464E-02	8.181E-02	1.351E-01	1.166E-02	0.331
		529.64		2.597E-02	1.264E-01	2.082E-01	1.797E-02	0.125
		552.65		6.326E-02	2.478E-01	4.088E-01	3.515E-02	0.155
RB-84		881.50	*	-1.018E-02	8.684E-02	1.420E-01	1.315E-02	-0.072
KR-85		513.99	*	2.477E+01	1.045E+01	1.740E+01	1.503E+00	1.423
SR-85		513.99	*	1.268E-01	5.350E-02	8.911E-02	7.699E-03	1.423
RB-86		1076.63	*	-6.840E-01	1.097E+00	1.689E+00	1.479E-01	-0.405
Y-88		898.02		2.645E-02	5.254E-02	9.035E-02	8.461E-03	0.293
		1836.01	*	-4.292E-03	3.432E-02	5.463E-02	4.601E-03	-0.079
ZR-88		392.90	*	-1.861E-02	4.012E-02	6.413E-02	5.398E-03	-0.290
Y-91		1204.90	*	1.289E+01	2.738E+01	4.601E+01	3.879E+00	0.280
NB-94		702.63	*	1.815E-02	4.109E-02	7.083E-02	5.979E-03	0.256
		871.10		-2.633E-02	4.337E-02	6.777E-02	6.250E-03	-0.389
NB-95		765.79	*	2.159E-02	5.627E-02	9.606E-02	8.416E-03	0.225
NB-95M		235.69	*	3.168E-01	1.947E-01	3.032E-01	3.648E-02	1.045
ZR-95		724.18		2.051E-01	1.385E-01	2.256E-01	2.099E-02	0.909
		756.15	*	-1.697E-02	8.306E-02	1.361E-01	1.304E-02	-0.125
NB-97		657.90	*	-6.988E-02	8.306E-02	Half-Life too short		
		1024.50		-5.262E-01	8.306E-02	Half-Life too short		
ZR-97		254.15		-5.269E+00	8.306E-02	Half-Life too short		
		355.39		6.194E+00	8.306E-02	Half-Life too short		
		507.63	*	4.890E+00	8.306E-02	Half-Life too short		
		602.52		-3.455E+00	8.306E-02	Half-Life too short		
		1021.30		-1.446E+00	8.306E-02	Half-Life too short		
		1147.95		-1.136E-01	8.306E-02	Half-Life too short		
		1362.66		-4.393E+00	8.306E-02	Half-Life too short		
		1750.46		-1.992E+00	8.306E-02	Half-Life too short		
MO-99		140.51		-8.050E+00	3.369E+01	5.387E+01	1.519E+01	-0.149
		181.06		2.987E+01	2.528E+01	3.691E+01	7.162E+00	0.809
		366.43		9.935E+00	1.093E+02	1.813E+02	1.661E+01	0.055
		739.58	*	1.485E+00	1.382E+01	2.325E+01	3.531E+00	0.064

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-1.417E+01	3.797E+01	6.111E+01	5.390E+00	-0.232
TC-99M		140.51	*	-8.813E+09	3.797E+01	Half-Life too short		
RH-101		127.23		2.667E-02	4.818E-02	7.031E-02	7.054E-03	0.379
		198.01	*	2.014E-02	4.437E-02	7.103E-02	7.749E-03	0.284
		325.23		2.025E-02	3.398E-01	4.914E-01	4.979E-02	0.041
RH-102		418.52		-3.852E-02	3.832E-01	6.249E-01	5.320E-02	-0.062
		475.06	*	-3.474E-02	3.768E-02	5.728E-02	4.942E-03	-0.607
		631.29		1.676E-02	6.762E-02	1.109E-01	9.277E-03	0.151
		697.49		-1.577E-02	9.751E-02	1.614E-01	1.358E-02	-0.098
		766.84		9.606E-02	1.450E-01	2.515E-01	2.205E-02	0.382
		1046.59		8.957E-02	1.506E-01	2.590E-01	2.306E-02	0.346
		1112.84		-6.259E-02	3.544E-01	4.834E-01	4.134E-02	-0.129
RU-103		497.08	*	3.179E-02	5.446E-02	9.174E-02	1.300E-02	0.346
	+	610.33		1.171E+01	3.000E+00	3.402E+00	5.646E-01	3.443
RH-106	+	511.85		6.268E-01	4.177E-01	5.210E-01	4.502E-02	1.203
		621.84	*	-1.026E-01	4.015E-01	6.318E-01	8.353E-02	-0.162
		1050.47		6.851E-01	2.998E+00	5.005E+00	4.447E-01	0.137
RU-106	+	511.85		6.268E-01	4.177E-01	5.210E-01	4.502E-02	1.203
		621.84	*	-1.026E-01	4.013E-01	6.318E-01	5.310E-02	-0.162
		1050.47		6.851E-01	2.998E+00	5.005E+00	4.447E-01	0.137
AG-108M		433.93	*	1.074E-02	4.021E-02	6.702E-02	5.966E-03	0.160
		614.37		3.433E-02	5.462E-02	8.129E-02	7.136E-03	0.422
		722.95		3.976E-02	5.519E-02	8.564E-02	7.612E-03	0.464
AG-110M		657.75	*	-2.800E-02	4.070E-02	6.461E-02	5.498E-03	-0.433
		677.61		5.637E-02	3.982E-01	6.739E-01	5.768E-02	0.084
		706.67		-2.133E-02	2.573E-01	4.278E-01	3.724E-02	-0.050
		763.93		-7.269E-02	2.187E-01	3.557E-01	3.199E-02	-0.204
		884.67		4.583E-03	6.231E-02	1.036E-01	9.877E-03	0.044
		937.48		-8.719E-02	1.509E-01	2.360E-01	2.254E-02	-0.370
		1384.27		-3.806E-02	2.109E-01	3.450E-01	3.399E-02	-0.110
IN-111		171.28		-1.031E+00	1.341E+00	2.077E+00	2.225E-01	-0.497
		245.39	*	5.510E-02	1.479E+00	2.165E+00	2.386E-01	0.025
IN-113M		391.69	*	-1.827E-02	5.806E-02	9.372E-02	8.140E-03	-0.195
SN-113		391.69	*	-1.827E-02	5.806E-02	9.372E-02	8.140E-03	-0.195
IN-114M		190.27	*	2.956E-01	2.800E-01	4.128E-01	4.482E-02	0.716
CD-115		260.90		4.359E+01	1.629E+02	2.759E+02	3.023E+01	0.158
		492.35		-3.338E+01	4.400E+01	6.746E+01	5.829E+00	-0.495
		527.90	*	5.472E+00	1.209E+01	2.031E+01	1.753E+00	0.269
SN-117M		156.02		1.273E+00	3.027E+00	4.958E+00	5.168E-01	0.257
		158.56	*	-6.383E-02	7.360E-02	1.138E-01	1.193E-02	-0.561
SB-122		563.90	*	-7.772E-01	2.749E+00	4.258E+00	3.652E-01	-0.183
		692.80		3.483E+00	5.167E+01	8.692E+01	7.293E+00	0.040
I-123		159.00	*	-4.723E+00	5.167E+01	Half-Life too short		
		528.96		3.027E+02	5.167E+01	Half-Life too short		
TE-123M		159.00	*	-2.690E-02	3.794E-02	5.913E-02	6.231E-03	-0.455
I-124		602.71	*	-7.553E-02	9.994E-01	1.377E+00	1.167E-01	-0.055
		722.78		3.596E+00	5.621E+00	8.660E+00	7.402E-01	0.415
		1325.50		-3.075E+01	4.627E+01	6.850E+01	6.541E+00	-0.449
		1376.25		3.438E+01	3.908E+01	7.086E+01	6.827E+00	0.485

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1509.49		2.424E+01	1.912E+01	3.649E+01	3.485E+00	0.664
		1691.02		-2.465E+00	4.113E+00	5.922E+00	5.374E-01	-0.416
SB-124		602.71		-4.467E-03	5.911E-02	8.143E-02	6.901E-03	-0.055
		645.85		1.549E-01	6.061E-01	9.940E-01	8.783E-02	0.156
		709.31		1.363E+00	3.385E+00	5.822E+00	4.936E-01	0.234
		713.82		-9.985E-01	2.005E+00	3.219E+00	3.848E-01	-0.310
		722.78		3.083E-01	4.819E-01	7.424E-01	6.485E-02	0.415
	+	968.20		1.358E+01	6.300E+00	8.885E+00	8.162E-01	1.528
		1045.16		6.756E-01	3.200E+00	5.335E+00	4.753E-01	0.127
		1325.50		-2.815E+00	4.237E+00	6.272E+00	5.989E-01	-0.449
		1368.21		-2.864E-01	1.922E+00	3.147E+00	4.452E-01	-0.091
		1436.60		-1.837E-01	4.597E+00	7.623E+00	7.336E-01	-0.024
		1691.02	*	-4.985E-02	8.318E-02	1.198E-01	1.126E-02	-0.416
SB-125		427.89	*	-3.343E-03	1.139E-01	1.863E-01	1.623E-02	-0.018
		463.38		7.075E-01	3.878E-01	6.899E-01	6.410E-02	1.025
		600.56		-1.235E-01	2.423E-01	3.759E-01	3.430E-02	-0.328
		635.90		1.656E-01	3.390E-01	5.659E-01	5.129E-02	0.293
TE-125M		109.28	*	-1.573E+00	1.279E+01	2.041E+01	2.396E+00	-0.077
I-126		388.63		-3.510E-02	2.586E-01	4.222E-01	3.593E-02	-0.083
		666.33	*	-2.385E-02	2.228E-01	3.709E-01	3.059E-02	-0.064
		753.82		1.637E+00	1.676E+00	3.001E+00	2.612E-01	0.546
SB-126		223.80		-2.404E+00	5.232E+00	8.631E+00	9.515E-01	-0.279
		278.60		1.696E+00	3.438E+00	5.777E+00	6.249E-01	0.294
	+	296.50		1.407E+01	3.328E+00	4.424E+00	4.693E-01	3.181
		414.70		-5.725E-02	1.015E-01	1.608E-01	1.367E-02	-0.356
		415.30		-3.243E+00	8.344E+00	1.337E+01	1.137E+00	-0.243
		555.20		-2.960E+00	5.169E+00	7.993E+00	6.869E-01	-0.370
		573.80		3.134E-01	1.220E+00	2.011E+00	1.721E-01	0.156
		593.00		-1.115E+00	1.192E+00	1.772E+00	1.507E-01	-0.630
		656.30		-3.768E+00	3.878E+00	5.998E+00	4.948E-01	-0.628
		666.33		-9.964E-03	9.306E-02	1.549E-01	1.278E-02	-0.064
		675.00		-5.328E-01	2.426E+00	4.001E+00	3.318E-01	-0.133
		695.00		3.214E-02	9.780E-02	1.673E-01	1.406E-02	0.192
		697.00		7.554E-03	3.324E-01	5.571E-01	4.687E-02	0.014
		720.50	*	-2.208E-02	2.011E-01	2.861E-01	2.442E-02	-0.077
		856.80		-6.315E-03	6.239E-01	1.032E+00	9.458E-02	-0.006
		989.30		1.156E+00	1.718E+00	2.973E+00	2.713E-01	0.389
		1034.80		6.626E+00	1.148E+01	1.975E+01	1.768E+00	0.336
		1213.00		-1.298E+00	6.834E+00	1.091E+01	9.280E-01	-0.119
SB-127		61.10		2.242E+01	1.163E+02	1.708E+02	2.282E+01	0.131
		252.40		5.112E+00	5.956E+00	9.667E+00	4.116E+00	0.529
		290.80		-1.611E+01	3.053E+01	4.243E+01	5.427E+00	-0.380
		411.60		1.458E+01	1.585E+01	2.714E+01	4.242E+00	0.537
		444.90		-1.198E+01	1.183E+01	1.780E+01	2.221E+00	-0.673
		473.00		5.606E-01	2.039E+00	3.387E+00	4.350E-01	0.166
		543.00		-2.285E+00	1.838E+01	2.946E+01	4.232E+00	-0.078
		603.60		-1.345E+00	1.749E+01	2.409E+01	2.981E+00	-0.056
		685.20	*	-2.093E-01	1.682E+00	2.792E+00	3.112E-01	-0.075
		698.50		2.746E-01	1.899E+01	3.181E+01	4.990E+00	0.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.20		2.368E+01	3.809E+01	5.859E+01	6.484E+00	0.404
		783.80		5.410E+00	4.302E+00	7.748E+00	9.720E-01	0.698
XE-127		57.60		4.496E+00	1.317E+01	2.139E+01	2.515E+00	0.210
		145.22		-2.588E-01	9.283E-01	1.461E+00	1.490E-01	-0.177
		172.10		-6.564E-02	1.628E-01	2.568E-01	2.753E-02	-0.256
		202.84	*	-4.507E-02	6.330E-02	9.751E-02	1.067E-02	-0.462
		374.96		-5.682E-02	2.640E-01	4.300E-01	3.836E-02	-0.132
I-131		80.18		2.559E+00	7.274E+00	1.066E+01	1.257E+00	0.240
		284.30		6.159E-02	2.014E+00	3.365E+00	3.742E-01	0.018
		364.48	*	7.394E-02	1.508E-01	2.555E-01	2.467E-02	0.289
		636.97		1.236E+00	1.903E+00	3.215E+00	2.841E-01	0.384
		722.89		6.356E+00	9.183E+00	1.421E+01	1.223E+00	0.447
TE-132		49.72		-5.525E+01	5.824E+01	9.195E+01	1.388E+01	-0.601
		111.76		-2.652E+01	3.817E+01	6.027E+01	7.304E+00	-0.440
		116.30		9.129E-01	3.466E+01	5.646E+01	6.799E+00	0.016
		228.16	*	-7.589E-02	8.737E-01	1.464E+00	2.509E-01	-0.052
BA-133		53.15		1.939E+00	8.994E+00	1.506E+01	1.967E+00	0.129
		79.62		3.831E+00	2.265E+00	3.370E+00	5.788E-01	1.137
		81.00		5.131E-03	1.535E-01	2.216E-01	3.947E-02	0.023
		276.40		6.102E-01	5.220E-01	8.881E-01	1.410E-01	0.687
		302.84		-9.611E-03	1.985E-01	3.208E-01	4.681E-02	-0.030
		356.01	*	-3.310E-03	6.106E-02	8.709E-02	1.198E-02	-0.038
		383.85		-1.479E-01	3.862E-01	6.206E-01	7.839E-02	-0.238
I-133	+	510.53		1.167E+00	3.862E-01	Half-Life too short		
		529.87	*	-3.577E-04	3.862E-01	Half-Life too short		
		706.58		-3.131E-02	3.862E-01	Half-Life too short		
		856.28		-4.270E-01	3.862E-01	Half-Life too short		
		875.33		1.859E-01	3.862E-01	Half-Life too short		
		1236.41		1.356E+00	3.862E-01	Half-Life too short		
		1298.22		3.925E-01	3.862E-01	Half-Life too short		
CS-134		475.35		-2.408E+00	2.477E+00	3.751E+00	3.236E-01	-0.642
		563.23		1.276E-01	4.850E-01	7.813E-01	6.767E-02	0.163
		569.32		4.769E-02	2.434E-01	3.993E-01	3.467E-02	0.119
		604.70		-9.841E-03	5.242E-02	7.139E-02	6.061E-03	-0.138
		795.84	*	9.621E-02	5.706E-02	1.056E-01	9.462E-03	0.911
		801.93		4.736E-02	4.647E-01	7.786E-01	6.990E-02	0.061
		1038.57		-1.143E+00	4.878E+00	7.803E+00	6.974E-01	-0.147
		1167.94		9.367E-01	3.354E+00	5.582E+00	4.565E-01	0.168
		1365.15		-5.124E-02	1.346E+00	2.239E+00	2.235E-01	-0.023
CS-135		268.24	*	5.016E-02	2.109E-01	3.560E-01	4.271E-02	0.141
I-135		288.45		-1.422E+10	2.109E-01	Half-Life too short		
		417.63		-4.164E+09	2.109E-01	Half-Life too short		
		546.56		-5.099E+08	2.109E-01	Half-Life too short		
		836.80		3.854E+09	2.109E-01	Half-Life too short		
		1038.76		-6.709E+09	2.109E-01	Half-Life too short		
		1124.00		3.242E+10	2.109E-01	Half-Life too short		
		1131.51		2.218E+09	2.109E-01	Half-Life too short		
		1260.41	*	2.641E+09	2.109E-01	Half-Life too short		
		1457.56		1.037E+12	2.109E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1678.03		-4.862E+09	2.109E-01	Half-Life too short		
		1706.46		-6.703E+09	2.109E-01	Half-Life too short		
		1791.20		-4.029E+09	2.109E-01	Half-Life too short		
CS-136		66.91		1.566E+00	1.450E+00	2.178E+00	3.736E-01	0.719
		86.29		5.578E+00	2.251E+00	2.635E+00	4.090E-01	2.116
		153.22		9.459E-01	8.728E-01	1.458E+00	1.636E-01	0.649
		163.89		3.169E-01	1.471E+00	2.359E+00	2.707E-01	0.134
		176.55		-3.871E-01	5.048E-01	7.808E-01	8.710E-02	-0.496
		273.65		-1.562E+00	6.566E-01	9.431E-01	1.068E-01	-1.656
		340.57		5.080E-01	2.016E-01	3.272E-01	3.282E-02	1.553
		818.51		7.806E-03	9.374E-02	1.566E-01	1.411E-02	0.050
		1048.07	*	2.378E-02	1.423E-01	2.362E-01	2.186E-02	0.101
		1235.34		1.044E+00	8.029E-01	1.413E+00	1.683E-01	0.739
BA-137M		661.65	*	5.324E-03	4.359E-02	7.376E-02	6.064E-03	0.072
CS-137		661.65	*	5.628E-03	4.607E-02	7.797E-02	6.424E-03	0.072
CE-139		165.85	*	1.578E-02	4.054E-02	6.621E-02	7.067E-03	0.238
BA-140		162.64		-1.338E-01	1.021E+00	1.614E+00	1.775E-01	-0.083
		304.84		-1.471E+00	1.775E+00	2.748E+00	7.875E-01	-0.535
		423.70		-1.217E+00	2.490E+00	3.905E+00	1.265E+00	-0.312
		537.32	*	1.545E-01	3.159E-01	5.245E-01	1.738E-01	0.295
LA-140	+	328.77		9.943E-01	5.468E-01	7.296E-01	7.645E-02	1.363
		432.53		1.018E+00	2.445E+00	4.117E+00	3.695E-01	0.247
		487.03		1.959E-02	1.683E-01	2.765E-01	2.535E-02	0.071
		751.79		1.180E+00	1.928E+00	3.369E+00	3.237E-01	0.350
		815.85		1.133E-01	3.985E-01	6.766E-01	6.731E-02	0.167
		867.82		-5.751E-01	1.683E+00	2.696E+00	2.599E-01	-0.213
		919.63		2.059E-01	3.420E+00	5.412E+00	6.061E-01	0.038
		925.24		-1.175E-01	1.315E+00	2.148E+00	2.103E-01	-0.055
		1596.49	*	-1.035E-01	9.436E-02	1.248E-01	1.170E-02	-0.829
CE-141		145.44	*	9.514E-03	8.167E-02	1.326E-01	1.371E-02	0.072
CE-143		57.37		8.331E-04	8.167E-02	Half-Life too short		
		231.56		2.521E-03	8.167E-02	Half-Life too short		
		293.26	*	8.651E-04	8.167E-02	Half-Life too short		
	+	350.59		3.081E-02	8.167E-02	Half-Life too short		
		490.36		-2.793E-04	8.167E-02	Half-Life too short		
		664.57		5.391E-05	8.167E-02	Half-Life too short		
		721.93		1.378E-03	8.167E-02	Half-Life too short		
CE-144		80.11		1.643E+00	3.399E+00	5.006E+00	5.884E-01	0.328
		133.54	*	-1.659E-01	3.085E-01	4.219E-01	6.921E-02	-0.393
PM-144		476.78		2.428E-02	8.175E-02	1.361E-01	1.284E-02	0.178
		618.01		-2.295E-03	4.439E-02	6.423E-02	5.564E-03	-0.036
		696.49	*	2.114E-02	4.277E-02	7.398E-02	6.224E-03	0.286
		778.57		-1.403E+00	2.729E+00	4.340E+00	3.830E-01	-0.323
PR-144		696.49	*	1.432E+00	2.898E+00	5.013E+00	4.216E-01	0.286
		1489.15		-6.413E-02	1.317E+01	2.189E+01	2.097E+00	-0.003
PM-146		453.90	*	1.729E-02	5.813E-02	9.674E-02	1.036E-02	0.179
		633.02		-8.669E-01	1.786E+00	2.706E+00	1.010E+00	-0.320
		735.90		-7.658E-02	2.023E-01	2.888E-01	8.259E-02	-0.265
		747.13		-1.329E-01	1.096E-01	1.611E-01	2.267E-02	-0.825

Sample ID : G246837002 Acquisition date : 23-FEB-2010 12:05:50

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147		91.11		1.146E+00	5.804E-01	6.740E-01	8.344E-02	1.700
		319.41		1.646E+00	4.400E+00	7.438E+00	7.619E-01	0.221
		439.89		-1.274E+00	7.253E+00	1.173E+01	1.006E+00	-0.109
		531.02	*	-4.661E-01	6.974E-01	1.067E+00	1.595E-01	-0.437
PM-149		285.90	*	5.804E+01	1.193E+02	2.028E+02	3.410E+01	0.286
EU-152		121.78		-9.129E-04	9.583E-02	1.557E-01	1.745E-02	-0.006
		244.69		4.121E-01	4.685E-01	7.188E-01	7.923E-02	0.573
		344.27	*	1.547E-02	1.661E-01	2.104E-01	2.142E-02	0.074
		443.98		-5.968E-01	1.147E+00	1.805E+00	1.548E-01	-0.331
		778.89		-1.029E-02	3.104E-01	5.151E-01	4.545E-02	-0.020
		867.32		-3.622E-01	9.996E-01	1.598E+00	1.472E-01	-0.227
		964.01		6.607E-01	4.391E-01	7.129E-01	6.557E-02	0.927
		1085.78		-2.342E-01	5.328E-01	8.335E-01	7.258E-02	-0.281
		1112.02		-4.710E-03	4.725E-01	6.868E-01	5.877E-02	-0.007
		1407.95		-2.810E-02	2.307E-01	3.794E-01	3.656E-02	-0.074
GD-153		69.67		-3.074E+00	2.858E+00	4.129E+00	4.713E-01	-0.745
		83.37		1.699E+01	2.330E+01	3.457E+01	4.144E+00	0.492
		97.43	*	2.206E-02	1.190E-01	1.721E-01	1.899E-02	0.128
		103.18		-9.349E-02	1.430E-01	2.272E-01	2.402E-02	-0.411
EU-154		123.07		-1.563E-02	7.332E-02	1.089E-01	1.360E-02	-0.144
		247.94		-1.267E-01	4.992E-01	7.800E-01	1.043E-01	-0.162
		591.81		-9.000E-01	8.281E-01	1.165E+00	1.350E-01	-0.772
		723.30		3.048E-01	2.322E-01	3.787E-01	3.585E-02	0.805
		756.87		-8.847E-01	9.309E-01	1.419E+00	1.709E-01	-0.624
		873.19		2.405E-01	3.874E-01	6.712E-01	8.512E-02	0.358
		996.32		2.288E-02	4.703E-01	7.751E-01	1.395E-01	0.030
		1004.76		-3.370E-01	2.824E-01	4.067E-01	4.872E-02	-0.829
		1274.45	*	-8.962E-02	1.743E-01	2.672E-01	3.116E-02	-0.335
EU-155		48.70		-7.314E+00	8.070E+00	1.282E+01	1.720E+00	-0.571
		60.01		5.052E+00	1.047E+01	1.561E+01	1.762E+00	0.324
		86.54		4.941E-01	2.010E-01	2.414E-01	2.978E-02	2.046
		105.31	*	2.524E-02	1.470E-01	2.414E-01	2.544E-02	0.105
TB-160		86.79		1.256E+00	5.305E-01	6.358E-01	7.817E-02	1.975
		197.04		7.346E-02	7.538E-01	1.189E+00	1.297E-01	0.062
		215.65		-5.194E-01	1.006E+00	1.614E+00	1.776E-01	-0.322
		298.57		2.050E-01	1.705E-01	2.616E-01	2.768E-02	0.784
		879.36	*	-1.204E-01	1.766E-01	2.736E-01	2.532E-02	-0.440
		962.29		8.122E-01	7.765E-01	1.220E+00	1.122E-01	0.666
		966.15		1.369E+00	3.985E-01	6.871E-01	6.316E-02	1.992
		1177.93		-1.186E-01	4.718E-01	7.484E-01	6.124E-02	-0.158
		1271.85		2.817E-01	9.924E-01	1.647E+00	1.491E-01	0.171
HO-166M		80.57		3.411E-02	4.271E-01	6.181E-01	7.283E-02	0.055
		184.41		6.809E-02	5.632E-02	8.524E-02	9.218E-03	0.799
		280.46		-1.455E-01	1.191E-01	1.861E-01	2.009E-02	-0.782
		410.95		2.878E-01	3.190E-01	5.496E-01	4.665E-02	0.524
		711.68	*	-1.374E-02	7.313E-02	1.205E-01	1.023E-02	-0.114
		752.31		3.557E-01	3.058E-01	5.556E-01	4.831E-02	0.640
		810.29		-5.788E-02	7.076E-02	1.086E-01	9.743E-03	-0.533
TM-171		51.35		-6.560E+01	8.425E+01	1.345E+02	1.814E+01	-0.488

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		52.39		3.080E+00	4.134E+01	6.886E+01	9.131E+00	0.045
		59.40		-7.660E+00	5.961E+01	8.611E+01	9.707E+00	-0.089
		66.72	*	4.659E+01	5.302E+01	7.984E+01	9.113E+00	0.584
LU-176	+	88.36		9.308E-01	4.179E-01	4.827E-01	5.960E-02	1.928
		201.83		-2.813E-02	3.869E-02	5.957E-02	6.513E-03	-0.472
		306.84	*	2.597E-02	3.209E-02	5.535E-02	5.787E-03	0.469
		401.10		4.245E+00	8.765E+00	1.480E+01	1.251E+00	0.287
LU-177		112.95		-2.127E-01	2.083E+00	3.378E+00	3.435E-01	-0.063
	+	208.36	*	3.028E+00	1.626E+00	2.549E+00	2.796E-01	1.188
LU-177M		52.97		1.109E+00	4.117E+00	6.906E+00	9.055E-01	0.161
		54.07		6.438E-01	2.091E+00	3.510E+00	4.493E-01	0.183
		61.30		9.055E-01	3.057E+00	4.511E+00	5.127E-01	0.201
		121.62		1.460E-02	4.896E-01	7.967E-01	8.019E-02	0.018
		147.16		3.275E-01	8.504E-01	1.394E+00	1.427E-01	0.235
		171.86		-4.491E-01	6.657E-01	1.036E+00	1.110E-01	-0.433
		218.09		9.632E-01	1.135E+00	1.965E+00	2.164E-01	0.490
		268.79		1.563E+00	1.079E+00	1.891E+00	2.061E-01	0.827
		319.02		2.131E-01	3.438E-01	5.876E-01	6.022E-02	0.363
		367.43		-1.128E-01	1.215E+00	1.995E+00	1.822E-01	-0.057
		413.65	*	-1.653E-01	2.374E-01	3.729E-01	3.169E-02	-0.443
HF-181		56.28		-4.889E-01	2.128E+00	3.495E+00	4.243E-01	-0.140
		57.53		3.913E-01	1.112E+00	1.807E+00	2.128E-01	0.217
		65.20		2.007E+00	1.893E+00	2.866E+00	3.272E-01	0.700
		133.02		-1.238E-01	1.013E-01	1.325E-01	1.331E-02	-0.935
		136.25		1.040E-01	6.316E-01	9.942E-01	1.002E-01	0.105
		345.85		-2.079E-01	2.931E-01	3.960E-01	3.836E-02	-0.525
		482.03	*	2.536E-02	5.480E-02	9.204E-02	7.947E-03	0.275
W-181		56.28		-1.899E-01	8.341E-01	1.370E+00	1.663E-01	-0.139
		57.53		1.536E-01	4.363E-01	7.089E-01	8.348E-02	0.217
		65.20	*	7.808E-01	7.366E-01	1.115E+00	1.273E-01	0.700
TA-182		67.75		5.812E-02	2.030E-01	2.983E-01	3.404E-02	0.195
		100.10		8.765E-02	2.397E-01	3.969E-01	4.284E-02	0.221
		152.43		-2.228E-02	4.534E-01	7.302E-01	7.551E-02	-0.031
		222.10		5.607E-02	4.564E-01	7.720E-01	8.508E-02	0.073
		1001.68		3.092E-01	2.662E+00	4.462E+00	4.053E-01	0.069
	+	1121.28		4.247E-01	3.881E-01	4.365E-01	3.710E-02	0.973
		1189.05		8.746E-02	4.450E-01	7.337E-01	6.078E-02	0.119
		1221.42	*	-1.483E-02	2.794E-01	4.508E-01	3.869E-02	-0.033
		1230.97		-4.261E-01	6.690E-01	1.025E+00	8.889E-02	-0.416
RE-183		57.98		9.592E-02	4.457E-01	6.914E-01	8.054E-02	0.139
		59.32		1.175E-03	2.432E-01	3.539E-01	3.997E-02	0.003
		67.20		3.830E-01	3.662E-01	5.547E-01	6.331E-02	0.690
		162.32	*	-4.032E-02	1.496E-01	2.352E-01	2.488E-02	-0.171
	+	208.81		2.751E+00	1.477E+00	2.296E+00	2.519E-01	1.198
		291.72		-1.064E+00	1.389E+00	1.894E+00	2.022E-01	-0.562
RE-184		57.98		3.537E-01	1.643E+00	2.549E+00	2.970E-01	0.139
		59.32		4.327E-03	8.959E-01	1.304E+00	1.473E-01	0.003
		67.20		1.412E+00	1.350E+00	2.045E+00	2.334E-01	0.690
		161.27		4.421E-02	4.743E-01	7.668E-01	8.091E-02	0.058

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		216.55		3.961E-02	3.478E-01	5.885E-01	6.476E-02	0.067
		252.85	*	8.579E-02	3.018E-01	5.119E-01	5.629E-02	0.168
		318.01		-2.611E-01	5.959E-01	9.660E-01	9.918E-02	-0.270
		792.07		9.801E-02	1.207E+00	2.019E+00	1.794E-01	0.049
		903.28		1.383E-01	1.420E+00	2.120E+00	1.976E-01	0.065
		920.93		-1.100E-01	5.538E-01	8.959E-01	8.324E-02	-0.123
OS-185		59.72		-1.822E-02	6.508E-01	9.452E-01	1.065E-01	-0.019
		61.14		7.292E-02	3.372E-01	4.958E-01	5.631E-02	0.147
		69.30		-5.236E-01	4.907E-01	7.437E-01	8.488E-02	-0.704
		592.07		-4.236E+00	3.259E+00	4.665E+00	3.968E-01	-0.908
		646.12	*	1.708E-02	5.078E-02	8.387E-02	6.960E-03	0.204
		717.42		-1.468E-01	1.072E+00	1.772E+00	1.510E-01	-0.083
		874.81		9.152E-01	7.296E-01	1.325E+00	1.224E-01	0.691
		880.27		-6.052E-01	9.907E-01	1.546E+00	1.432E-01	-0.391
RE-188		155.03	*	2.669E-01	2.301E-01	3.854E-01	4.008E-02	0.692
		477.96		1.334E+00	3.846E+00	6.419E+00	5.541E-01	0.208
		633.10		-2.103E+00	3.571E+00	5.448E+00	4.553E-01	-0.386
W-188	+	63.58		1.103E+02	1.043E+02	1.610E+02	1.838E+01	0.685
		227.08		-5.728E+00	1.644E+01	2.724E+01	3.005E+00	-0.210
		290.67	*	-5.118E+00	1.079E+01	1.508E+01	1.611E+00	-0.339
IR-192	+	295.96		1.084E+00	2.565E-01	3.439E-01	3.668E-02	3.151
		308.46		1.541E-02	1.226E-01	2.052E-01	2.148E-02	0.075
		316.51	*	-3.397E-03	4.525E-02	7.486E-02	7.718E-03	-0.045
		468.07		-8.372E-02	9.316E-02	1.429E-01	1.321E-02	-0.586
		604.41		-1.497E-01	7.074E-01	9.607E-01	1.241E-01	-0.156
		612.46		2.685E+00	1.186E+00	1.927E+00	1.877E-01	1.394
AU-195		65.12		3.617E-01	3.420E-01	5.177E-01	5.911E-02	0.699
		66.83		1.918E-01	1.739E-01	2.640E-01	3.013E-02	0.727
	+	75.70		1.006E+00	3.736E-01	6.316E-01	7.284E-02	1.592
		98.88	*	2.990E-01	3.229E-01	5.070E-01	5.525E-02	0.590
	+	129.76		7.052E+00	6.114E+00	6.655E+00	6.678E-01	1.060
TL-200		367.94	*	4.171E-05	6.114E+00	Half-Life too short		
		579.30		4.829E-03	6.114E+00	Half-Life too short		
		828.27		2.598E-03	6.114E+00	Half-Life too short		
		1205.75		1.797E-03	6.114E+00	Half-Life too short		
TL-201		68.90		-5.987E+00	7.726E+00	1.190E+01	1.358E+00	-0.503
		70.82		-2.357E+00	4.596E+00	6.471E+00	7.392E-01	-0.364
		80.30		1.120E+00	7.735E+00	1.123E+01	1.321E+00	0.100
		135.34		-6.420E+00	3.772E+01	5.289E+01	5.323E+00	-0.121
		167.43	*	3.788E+00	9.239E+00	1.510E+01	1.613E+00	0.251
TL-202		68.90		-5.490E-01	7.084E-01	1.091E+00	1.245E-01	-0.503
		70.82		-2.155E-01	4.202E-01	5.917E-01	6.759E-02	-0.364
		80.30		1.025E-01	7.075E-01	1.027E+00	1.209E-01	0.100
		439.56	*	1.944E-02	8.434E-02	1.402E-01	1.202E-02	0.139
HG-203		70.83		-9.308E-01	1.832E+00	2.577E+00	4.003E-01	-0.361
		72.87		1.777E+00	1.049E+00	1.586E+00	2.411E-01	1.121
		82.60		8.615E-01	1.745E+00	2.564E+00	4.109E-01	0.336
		279.20	*	1.603E-02	5.587E-02	9.438E-02	1.039E-02	0.170
BI-207		72.80		4.683E-01	3.016E-01	4.610E-01	5.279E-02	1.016

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	74.97		5.580E-01	2.073E-01	3.186E-01	3.666E-02	1.752
		84.90		5.972E-01	3.710E-01	4.323E-01	5.239E-02	1.381
		569.67		2.160E-02	3.684E-02	6.216E-02	5.324E-03	0.348
		1063.62	*	4.811E-02	7.021E-02	1.214E-01	1.071E-02	0.396
		1770.23		1.984E-01	5.383E-01	8.414E-01	7.355E-02	0.236
TL-207		81.07		1.202E-02	3.384E-01	4.887E-01	5.775E-02	0.025
		83.78		1.221E-01	1.962E-01	2.900E-01	3.486E-02	0.421
		94.90		9.041E-01	3.745E-01	5.760E-01	6.519E-02	1.570
		122.32		8.470E-01	2.341E+00	3.729E+00	3.956E-01	0.227
		144.24		-1.182E+00	9.317E-01	1.393E+00	1.541E-01	-0.849
		154.21		8.160E-01	5.296E-01	8.939E-01	9.926E-02	0.913
		269.46		5.545E-01	2.588E-01	4.584E-01	5.061E-02	1.209
		323.87	*	-7.156E-01	1.012E+00	1.367E+00	2.529E-01	-0.524
	+	338.28		7.082E+00	2.155E+00	2.963E+00	3.914E-01	2.390
		445.03		-2.897E+00	2.808E+00	4.219E+00	5.089E-01	-0.687
PO-209		260.50		2.516E+00	1.249E+01	2.109E+01	2.311E+00	0.119
		262.80		9.102E-01	3.425E+01	5.737E+01	6.279E+00	0.016
		896.60	*	4.889E+00	9.102E+00	1.572E+01	1.465E+00	0.311
BI-210		46.50	*	1.400E+01	1.381E+01	2.334E+01	2.874E+00	0.600
PB-210		46.50	*	1.400E+01	1.381E+01	2.334E+01	2.874E+00	0.600
PO-210		46.50	*	1.400E+01	1.379E+01	2.334E+01	2.722E+00	0.600
PB-211		404.84	*	-1.564E+00	1.573E+00	1.865E+00	1.168E+00	-0.839
		427.08		1.530E-01	2.567E+00	4.221E+00	2.622E+00	0.036
		831.96		-4.478E-01	1.533E+00	2.438E+00	1.529E+00	-0.184
BI-212	+	727.18	*	1.238E+00	6.654E-01	8.072E-01	8.043E-02	1.533
		785.46		3.197E+00	2.081E+00	3.838E+00	3.398E-01	0.833
		1620.62		1.321E+00	1.527E+00	2.835E+00	2.639E-01	0.466
PO-215		81.07		1.202E-02	3.384E-01	4.887E-01	5.775E-02	0.025
		83.78		1.221E-01	1.962E-01	2.900E-01	3.486E-02	0.421
		94.90		9.041E-01	3.745E-01	5.760E-01	6.519E-02	1.570
		122.32		8.470E-01	2.341E+00	3.729E+00	3.956E-01	0.227
		144.24		-1.182E+00	9.317E-01	1.393E+00	1.541E-01	-0.849
		154.21		8.160E-01	5.296E-01	8.939E-01	9.926E-02	0.913
		269.46		5.545E-01	2.588E-01	4.584E-01	5.061E-02	1.209
		323.87	*	-7.156E-01	1.012E+00	1.367E+00	2.529E-01	-0.524
	+	338.28		7.082E+00	2.155E+00	2.963E+00	3.914E-01	2.390
		445.03		-2.897E+00	2.808E+00	4.219E+00	5.089E-01	-0.687
RN-219		271.23		4.992E-01	3.313E-01	5.787E-01	7.100E-02	0.863
		401.81	*	1.757E-01	5.276E-01	8.835E-01	1.319E-01	0.199
RN-220		549.76	*	1.383E+01	3.262E+01	5.447E+01	4.687E+00	0.254
RA-223		81.07		1.202E-02	3.384E-01	4.887E-01	5.775E-02	0.025
		83.78		1.221E-01	1.962E-01	2.900E-01	3.486E-02	0.421
		94.90		9.041E-01	3.745E-01	5.760E-01	6.519E-02	1.570
		122.32		8.470E-01	2.341E+00	3.729E+00	3.956E-01	0.227
		144.24		-1.182E+00	9.317E-01	1.393E+00	1.541E-01	-0.849
		154.21		8.160E-01	5.296E-01	8.939E-01	9.926E-02	0.913
		269.46		5.545E-01	2.588E-01	4.584E-01	5.061E-02	1.209
		323.87	*	-7.156E-01	1.012E+00	1.367E+00	2.529E-01	-0.524
	+	338.28		7.082E+00	2.155E+00	2.963E+00	3.914E-01	2.390

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-2.897E+00	2.808E+00	4.219E+00	5.089E-01	-0.687
AC-227		79.80		2.837E+00	2.762E+00	4.059E+00	9.308E-01	0.699
		236.00		1.224E+00	4.124E-01	6.326E-01	8.887E-02	1.934
		256.20	*	-4.087E-01	4.876E-01	7.761E-01	1.303E-01	-0.527
		286.10		1.398E+00	2.057E+00	3.522E+00	5.168E-01	0.397
		299.80		2.162E+00	2.149E+00	3.232E+00	5.987E-01	0.669
		304.40		-2.692E+00	2.624E+00	4.062E+00	7.874E-01	-0.663
		334.20		3.468E+00	4.717E+00	5.006E+00	1.003E+00	0.693
TH-227		79.80		2.837E+00	2.764E+00	4.059E+00	9.413E-01	0.699
	+	94.00		9.137E+00	4.108E+00	5.010E+00	1.154E+00	1.824
		236.00		1.224E+00	4.074E-01	6.326E-01	8.251E-02	1.934
		256.20	*	-4.087E-01	4.891E-01	7.761E-01	1.498E-01	-0.527
		286.10		1.398E+00	2.484E+00	3.522E+00	3.542E+00	0.397
		299.80		2.162E+00	2.149E+00	3.232E+00	5.987E-01	0.669
		304.40		-2.692E+00	2.624E+00	4.062E+00	7.874E-01	-0.663
		334.20		3.468E+00	4.717E+00	5.006E+00	1.003E+00	0.693
TH-229		85.43		8.300E-01	3.752E-01	4.480E-01	5.451E-02	1.853
	+	88.47		5.358E-01	2.406E-01	2.784E-01	3.431E-02	1.924
		100.00		1.083E-01	2.498E-01	4.145E-01	4.478E-02	0.261
		193.63	*	-5.954E-01	7.028E-01	1.077E+00	1.172E-01	-0.553
		210.97		1.960E+00	1.108E+00	1.753E+00	1.925E-01	1.118
PA-231		283.67	*	1.179E+00	2.092E+00	3.563E+00	5.879E-01	0.331
		301.29		1.102E+00	8.710E-01	1.333E+00	1.822E-01	0.827
TH-231		81.07		1.202E-02	3.384E-01	4.887E-01	5.775E-02	0.025
		83.78		1.221E-01	1.962E-01	2.900E-01	3.486E-02	0.421
		94.90		9.041E-01	3.745E-01	5.760E-01	6.519E-02	1.570
		122.32		8.470E-01	2.341E+00	3.729E+00	3.956E-01	0.227
		144.24		-1.182E+00	9.317E-01	1.393E+00	1.541E-01	-0.849
		154.21		8.160E-01	5.296E-01	8.939E-01	9.926E-02	0.913
		269.46		5.545E-01	2.588E-01	4.584E-01	5.061E-02	1.209
		323.87	*	-7.156E-01	1.012E+00	1.367E+00	2.529E-01	-0.524
	+	338.28		7.082E+00	2.155E+00	2.963E+00	3.914E-01	2.390
		445.03		-2.897E+00	2.808E+00	4.219E+00	5.089E-01	-0.687
U-231		84.21		3.621E+00	8.164E+00	1.198E+01	1.445E+00	0.302
	+	92.29		8.856E+00	3.567E+00	5.208E+00	6.077E-01	1.700
		95.87	*	-1.438E-01	1.600E+00	2.283E+00	2.558E-01	-0.063
		108.00		4.400E-01	2.760E+00	4.452E+00	4.596E-01	0.099
PA-233	+	75.28		1.628E+01	6.393E+00	9.668E+00	1.657E+00	1.684
		86.59		7.953E+00	3.834E+00	3.914E+00	1.104E+00	2.032
		300.12		6.686E-01	5.993E-01	9.087E-01	1.461E-01	0.736
		311.98	*	-7.973E-02	8.232E-02	1.289E-01	1.364E-02	-0.618
		340.50		2.671E+00	1.158E+00	1.623E+00	3.942E-01	1.646
		398.62		-2.240E-01	2.787E+00	4.560E+00	1.212E+00	-0.049
		415.76		-4.143E-01	2.211E+00	3.585E+00	7.711E-01	-0.116
PA-234	+	63.00		3.203E+00	3.056E+00	4.781E+00	8.227E-01	0.670
	+	94.67		8.147E-01	3.361E-01	4.221E-01	6.091E-02	1.930
		98.44		9.541E-02	1.492E-01	2.066E-01	1.161E-01	0.462
		99.86		3.334E-01	6.353E-01	1.057E+00	1.143E-01	0.315
		111.00		-1.282E-01	2.448E-01	3.898E-01	5.174E-02	-0.329

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		131.20		8.590E-02	1.615E-01	2.352E-01	2.361E-02	0.365
		152.70		2.039E-01	4.368E-01	7.153E-01	1.286E-01	0.285
	+	186.00		5.661E+00	2.769E+00	3.240E+00	1.033E+00	1.747
		226.40		-3.909E-01	5.254E-01	8.514E-01	1.268E-01	-0.459
		227.20		-1.643E-01	5.573E-01	9.256E-01	1.021E-01	-0.177
		248.90		7.426E-02	1.079E+00	1.814E+00	4.252E-01	0.041
		293.70		5.731E+00	1.563E+00	2.077E+00	3.821E-01	2.759
		369.80		-3.128E-02	1.145E+00	1.887E+00	4.143E-01	-0.017
		568.70		-2.139E-01	1.264E+00	2.016E+00	1.728E-01	-0.106
		569.50		9.977E-02	3.355E-01	5.543E-01	4.748E-02	0.180
		574.00		4.173E-01	1.760E+00	2.898E+00	2.479E-01	0.144
		699.00		-3.447E-02	8.963E-01	1.496E+00	2.841E-01	-0.023
		706.10		-2.462E-01	1.286E+00	2.113E+00	9.417E-01	-0.117
		733.00		2.188E-01	4.706E-01	7.126E-01	1.581E-01	0.307
		742.81		1.800E+00	2.045E+00	2.977E+00	2.001E+00	0.605
		796.30		1.198E+00	1.157E+00	1.995E+00	5.414E-01	0.601
		805.60		3.242E-01	1.204E+00	2.038E+00	6.265E-01	0.159
		819.60		3.990E-01	1.556E+00	2.625E+00	1.000E+00	0.152
		826.30		-4.343E-01	1.059E+00	1.666E+00	7.469E-01	-0.261
		831.60		-6.648E-01	8.202E-01	1.229E+00	3.683E-01	-0.541
		876.40		5.877E-01	1.228E+00	1.848E+00	1.900E+00	0.318
		880.51		-1.790E-01	3.565E-01	5.623E-01	5.207E-02	-0.318
		883.24		1.145E-01	3.575E-01	5.936E-01	3.996E-01	0.193
		899.00		-3.320E-01	1.097E+00	1.748E+00	7.667E-01	-0.190
		925.00		-3.528E-01	1.391E+00	2.236E+00	2.076E-01	-0.158
		926.50		-1.144E-01	2.068E-01	3.187E-01	8.130E-02	-0.359
		946.00	*	1.279E-01	3.716E-01	6.294E-01	1.199E-01	0.203
		949.00		-4.713E-02	5.533E-01	9.034E-01	8.343E-02	-0.052
		980.50		-1.722E-01	9.596E-01	1.550E+00	1.419E-01	-0.111
		1394.10		-2.851E-01	1.407E+00	2.267E+00	1.479E+00	-0.126
PA-234M		766.42		1.411E+01	1.671E+01	2.666E+01	1.353E+01	0.529
		1001.03	*	2.655E+00	6.037E+00	1.038E+01	1.076E+00	0.256
U-235		89.95		2.303E+00	2.362E+00	2.518E+00	8.054E-01	0.915
	+	93.35		2.842E+00	1.373E+00	1.607E+00	4.669E-01	1.768
		105.00		6.384E-02	1.446E+00	2.364E+00	7.193E-01	0.027
		143.76	*	-3.837E-01	2.921E-01	4.267E-01	7.819E-02	-0.899
		163.35		1.595E-01	6.501E-01	1.043E+00	2.092E-01	0.153
	+	185.71		2.097E-01	8.100E-02	1.200E-01	1.299E-02	1.747
		205.31		1.860E-01	7.825E-01	1.103E+00	2.234E-01	0.169
NP-236	+	94.67		6.179E-01	2.489E-01	3.203E-01	3.634E-02	1.929
		98.44		7.214E-02	1.055E-01	1.562E-01	1.709E-02	0.462
		111.00		-9.696E-02	1.850E-01	2.948E-01	3.013E-02	-0.329
		160.31	*	-4.013E-03	1.054E-01	1.695E-01	1.784E-02	-0.024
NP-237		86.50	*	1.214E+00	5.509E-01	5.900E-01	1.416E-01	2.058
		95.87		-1.293E-01	1.439E+00	2.053E+00	5.266E-01	-0.063
NP-239		99.55		1.144E-01	2.196E-01	3.535E-01	3.832E-02	0.324
		117.00	*	-5.370E-02	2.471E-01	3.984E-01	4.022E-02	-0.135
	+	209.75		2.173E+00	1.167E+00	1.792E+00	1.967E-01	1.213
		228.18		-2.543E-02	2.927E-01	4.905E-01	5.411E-02	-0.052

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		2.320E-01	2.508E-01	4.276E-01	4.631E-02	0.543
		334.30		1.565E+00	2.720E+00	2.843E+00	2.827E-01	0.550
AM-241		59.54	*	-2.913E-02	3.450E-01	4.995E-01	5.863E-02	-0.058
CM-243		99.55		1.178E-01	2.259E-01	3.638E-01	3.943E-02	0.324
		103.76	*	-4.809E-02	1.324E-01	2.130E-01	2.245E-02	-0.226
		117.00		-5.525E-02	2.542E-01	4.098E-01	4.138E-02	-0.135
	+	209.75		2.142E+00	1.150E+00	1.766E+00	1.939E-01	1.213
		228.18		-2.569E-02	2.958E-01	4.956E-01	5.467E-02	-0.052
		277.60		2.339E-01	2.529E-01	4.311E-01	4.668E-02	0.543
AM-246		798.80		-2.534E-01	1.797E-01	2.621E-01	2.337E-02	-0.967
		1036.00		-8.999E-03	3.917E-01	6.398E-01	5.726E-02	-0.014
		1062.04		1.072E-01	3.046E-01	5.132E-01	4.532E-02	0.209
		1078.86	*	-1.458E-02	1.927E-01	3.125E-01	2.733E-02	-0.047
CM-247		278.00		8.940E-01	1.045E+00	1.778E+00	1.925E-01	0.503
		287.40		1.713E-01	1.630E+00	2.731E+00	2.929E-01	0.063
		402.60	*	-3.698E-03	4.729E-02	7.736E-02	6.542E-03	-0.048
CF-249		252.85		3.221E-01	1.133E+00	1.922E+00	2.113E-01	0.168
		333.44		1.462E-01	3.533E-01	3.615E-01	3.602E-02	0.404
		387.95	*	1.070E-02	5.006E-02	8.346E-02	7.120E-03	0.128
CF-251		176.60	*	-1.069E-01	1.736E-01	2.706E-01	2.910E-02	-0.395
		227.00		-3.421E-01	5.003E-01	8.156E-01	8.996E-02	-0.419
		285.00		6.150E-01	2.338E+00	3.946E+00	4.242E-01	0.156

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837002      *
* Acquisition date : 23-FEB-2010 12:05:50 Detector SN#     :               *
* Detector ID        : GAM15               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.33      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  8-FEB-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246837002           Analyst initials: MXR1          *
* Batch Number       : 952641               Sample Quantity : 1.2640E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.777E+01	4.281E+00	6.655E-01	0.000E+00
CD-109	3.992E+00	1.757E+00	1.782E+00	0.000E+00
SN-126	3.924E-01	1.727E-01	1.583E-01	0.000E+00
TL-208	5.100E-01	1.068E-01	7.035E-02	0.000E+00
BI-211	4.114E+00	7.005E-01	4.163E-01	0.000E+00
PB-212	1.782E+00	2.460E-01	1.197E-01	0.000E+00
PO-212	1.782E+00	2.460E-01	1.197E-01	0.000E+00
BI-214	1.087E+00	2.331E-01	1.486E-01	0.000E+00
PB-214	1.431E+00	2.544E-01	1.451E-01	0.000E+00
PO-214	1.431E+00	2.544E-01	1.451E-01	0.000E+00
PO-216	1.782E+00	2.460E-01	1.197E-01	0.000E+00
PO-218	1.431E+00	2.544E-01	1.451E-01	0.000E+00
RA-224	5.070E+00	1.541E+00	1.362E+00	0.000E+00
RA-226	1.087E+00	2.331E-01	1.486E-01	0.000E+00
AC-228	1.822E+00	3.573E-01	2.690E-01	0.000E+00
RA-228	1.822E+00	3.573E-01	2.690E-01	0.000E+00
TH-228	1.808E+00	2.497E-01	1.215E-01	0.000E+00
TH-230	1.087E+00	2.331E-01	1.486E-01	0.000E+00
TH-232	1.822E+00	3.573E-01	2.690E-01	0.000E+00
TH-234	2.748E+00	2.581E+00	4.036E+00	0.000E+00
U-234	1.087E+00	2.331E-01	1.486E-01	0.000E+00
U-238	2.748E+00	2.581E+00	4.036E+00	0.000E+00
AM-243	3.109E-01	1.132E-01	1.355E-01	0.000E+00
ANH-511	1.255E-01	8.198E-02	5.781E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.366E-01	3.912E-01	6.769E-01	0.000E+00	NOT IDENT.
NA-22	-2.863E-02	6.086E-02	9.597E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.277E+05	0.000E+00	0.000E+00	SHORT HLIF

AL-26	-4.526E-03	3.838E-02	6.270E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.717E-02	1.167E-01	0.000E+00	FAIL ABUN
SC-46	-9.976E-03	4.800E-02	7.997E-02	0.000E+00	FAIL ABUN
V-48	-8.849E-02	9.540E-02	1.472E-01	0.000E+00	NOT IDENT.
CR-51	1.835E-02	4.842E-01	8.399E-01	0.000E+00	NOT IDENT.
MN-52	-6.247E-02	2.715E-01	4.475E-01	0.000E+00	NOT IDENT.
MN-54	1.291E-02	4.574E-02	7.963E-02	0.000E+00	NOT IDENT.
CO-56	-1.726E-02	4.837E-02	7.990E-02	0.000E+00	NOT IDENT.
CO-57	2.231E-03	3.229E-02	5.563E-02	0.000E+00	NOT IDENT.
CO-58	-2.345E-02	4.622E-02	7.547E-02	0.000E+00	NOT IDENT.
FE-59	-6.310E-02	1.193E-01	1.895E-01	0.000E+00	NOT IDENT.
CO-60	1.196E-02	5.447E-02	9.173E-02	0.000E+00	NOT IDENT.
ZN-65	-4.981E-02	1.347E-01	1.833E-01	0.000E+00	NOT IDENT.
GE-68	-1.027E+00	1.707E+00	2.703E+00	0.000E+00	NOT IDENT.
AS-73	9.490E-01	1.987E+00	3.589E+00	0.000E+00	NOT IDENT.
AS-74	1.949E-02	1.154E-01	1.947E-01	0.000E+00	NOT IDENT.
SE-75	-1.256E-02	5.548E-02	9.602E-02	0.000E+00	NOT IDENT.
BR-77	5.662E+00	1.137E+01	1.984E+01	0.000E+00	FAIL ABUN
SR-82	-2.951E-01	4.407E-01	7.122E-01	0.000E+00	NOT IDENT.
RB-83	4.464E-02	8.018E-02	1.371E-01	0.000E+00	NOT IDENT.
RB-84	-1.018E-02	8.510E-02	1.430E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	1.024E+01	1.766E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.243E-02	9.046E-02	0.000E+00	NOT IDENT.
RB-86	-6.840E-01	1.075E+00	1.696E+00	0.000E+00	NOT IDENT.
Y-88	-4.292E-03	3.363E-02	5.442E-02	0.000E+00	NOT IDENT.
ZR-88	-1.861E-02	3.932E-02	6.536E-02	0.000E+00	NOT IDENT.
Y-91	1.289E+01	2.683E+01	4.612E+01	0.000E+00	NOT IDENT.
NB-94	1.815E-02	4.026E-02	7.157E-02	0.000E+00	NOT IDENT.
NB-95	2.159E-02	5.515E-02	9.695E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.908E-01	3.113E-01	0.000E+00	NOT IDENT.
ZR-95	-1.697E-02	8.140E-02	1.374E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.955E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.431E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.485E+00	1.354E+01	2.347E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.615E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.014E-02	4.348E-02	7.310E-02	0.000E+00	NOT IDENT.
RH-102	-3.474E-02	3.693E-02	5.821E-02	0.000E+00	NOT IDENT.
RU-103	3.179E-02	5.337E-02	9.318E-02	0.000E+00	FAIL ABUN
RH-106	-1.026E-01	3.934E-01	6.396E-01	0.000E+00	FAIL ABUN
RU-106	-1.026E-01	3.933E-01	6.396E-01	0.000E+00	FAIL ABUN
AG-108M	1.074E-02	3.940E-02	6.820E-02	0.000E+00	NOT IDENT.
AG-110M	-2.800E-02	3.989E-02	6.536E-02	0.000E+00	NOT IDENT.
IN-111	5.510E-02	1.450E+00	2.222E+00	0.000E+00	NOT IDENT.
IN-113M	-1.827E-02	5.690E-02	9.552E-02	0.000E+00	NOT IDENT.
SN-113	-1.827E-02	5.690E-02	9.552E-02	0.000E+00	NOT IDENT.
IN-114M	2.956E-01	2.744E-01	4.251E-01	0.000E+00	NOT IDENT.
CD-115	5.472E+00	1.185E+01	2.061E+01	0.000E+00	NOT IDENT.
SN-117M	-6.383E-02	7.213E-02	1.175E-01	0.000E+00	NOT IDENT.
SB-122	-7.772E-01	2.694E+00	4.316E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.528E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.690E-02	3.718E-02	6.104E-02	0.000E+00	NOT IDENT.
I-124	-7.553E-02	9.794E-01	1.394E+00	0.000E+00	NOT IDENT.
SB-124	-4.985E-02	8.152E-02	1.194E-01	0.000E+00	FAIL ABUN
SB-125	-3.343E-03	1.116E-01	1.896E-01	0.000E+00	NOT IDENT.
TE-125M	-1.573E+00	1.253E+01	2.118E+01	0.000E+00	NOT IDENT.
I-126	-2.385E-02	2.183E-01	3.751E-01	0.000E+00	NOT IDENT.
SB-126	-2.208E-02	1.971E-01	2.890E-01	0.000E+00	FAIL ABUN
SB-127	-2.093E-01	1.648E+00	2.822E+00	0.000E+00	NOT IDENT.
XE-127	-4.507E-02	6.204E-02	1.003E-01	0.000E+00	NOT IDENT.
I-131	7.394E-02	1.478E-01	2.607E-01	0.000E+00	NOT IDENT.
TE-132	-7.589E-02	8.562E-01	1.504E+00	0.000E+00	NOT IDENT.
BA-133	-3.310E-03	5.984E-02	8.888E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.552E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.621E-02	5.592E-02	1.065E-01	0.000E+00	NOT IDENT.
CS-135	5.016E-02	2.066E-01	3.648E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.670E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.378E-02	1.394E-01	2.373E-01	0.000E+00	NOT IDENT.
BA-137M	5.324E-03	4.271E-02	7.460E-02	0.000E+00	NOT IDENT.
CS-137	5.628E-03	4.515E-02	7.886E-02	0.000E+00	NOT IDENT.
CE-139	1.578E-02	3.973E-02	6.831E-02	0.000E+00	NOT IDENT.
BA-140	1.545E-01	3.096E-01	5.321E-01	0.000E+00	NOT IDENT.
LA-140	-1.035E-01	9.248E-02	1.246E-01	0.000E+00	FAIL ABUN
CE-141	9.514E-03	8.004E-02	1.371E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.849E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.659E-01	3.023E-01	4.366E-01	0.000E+00	NOT IDENT.
PM-144	2.114E-02	4.192E-02	7.476E-02	0.000E+00	NOT IDENT.
PR-144	1.432E+00	2.840E+00	5.066E+00	0.000E+00	NOT IDENT.
PM-146	1.729E-02	5.696E-02	9.839E-02	0.000E+00	NOT IDENT.

ND-147	-4.661E-01	6.835E-01	1.082E+00	0.000E+00	NOT IDENT.
PM-149	5.804E+01	1.169E+02	2.076E+02	0.000E+00	NOT IDENT.
EU-152	1.547E-02	1.628E-01	2.148E-01	0.000E+00	NOT IDENT.
GD-153	2.206E-02	1.166E-01	1.789E-01	0.000E+00	NOT IDENT.
EU-154	-8.962E-02	1.708E-01	2.676E-01	0.000E+00	NOT IDENT.
EU-155	2.524E-02	1.441E-01	2.507E-01	0.000E+00	NOT IDENT.
TB-160	-1.204E-01	1.731E-01	2.755E-01	0.000E+00	NOT IDENT.
HO-166M	-1.374E-02	7.167E-02	1.218E-01	0.000E+00	NOT IDENT.
TM-171	4.659E+01	5.196E+01	8.343E+01	0.000E+00	NOT IDENT.
LU-176	2.597E-02	3.145E-02	5.661E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.593E+00	2.621E+00	0.000E+00	FAIL ABUN
LU-177M	-1.653E-01	2.327E-01	3.798E-01	0.000E+00	NOT IDENT.
HF-181	2.536E-02	5.371E-02	9.352E-02	0.000E+00	NOT IDENT.
W-181	7.808E-01	7.219E-01	1.166E+00	0.000E+00	NOT IDENT.
TA-182	-1.483E-02	2.738E-01	4.518E-01	0.000E+00	FAIL ABUN
RE-183	-4.032E-02	1.466E-01	2.427E-01	0.000E+00	FAIL ABUN
RE-184	8.579E-02	2.958E-01	5.250E-01	0.000E+00	NOT IDENT.
OS-185	1.708E-02	4.976E-02	8.486E-02	0.000E+00	NOT IDENT.
RE-188	2.669E-01	2.255E-01	3.980E-01	0.000E+00	NOT IDENT.
W-188	-5.118E+00	1.058E+01	1.543E+01	0.000E+00	FAIL ABUN
IR-192	-3.397E-03	4.434E-02	7.653E-02	0.000E+00	FAIL ABUN
AU-195	2.990E-01	3.165E-01	5.269E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.645E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.788E+00	9.054E+00	1.558E+01	0.000E+00	NOT IDENT.
TL-202	1.944E-02	8.265E-02	1.426E-01	0.000E+00	NOT IDENT.
HG-203	1.603E-02	5.475E-02	9.666E-02	0.000E+00	NOT IDENT.
BI-207	4.811E-02	6.880E-02	1.219E-01	0.000E+00	FAIL ABUN
TL-207	-7.156E-01	9.917E-01	1.397E+00	0.000E+00	FAIL ABUN
PO-209	4.889E+00	8.919E+00	1.583E+01	0.000E+00	NOT IDENT.
BI-210	1.400E+01	1.353E+01	2.451E+01	0.000E+00	NOT IDENT.
PB-210	1.400E+01	1.353E+01	2.451E+01	0.000E+00	NOT IDENT.
PO-210	1.400E+01	1.352E+01	2.451E+01	0.000E+00	NOT IDENT.
PB-211	-1.564E+00	1.541E+00	1.900E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.521E-01	8.153E-01	0.000E+00	FAIL ABUN
PO-215	-7.156E-01	9.917E-01	1.397E+00	0.000E+00	FAIL ABUN
RN-219	1.757E-01	5.170E-01	9.001E-01	0.000E+00	NOT IDENT.
RN-220	1.383E+01	3.197E+01	5.525E+01	0.000E+00	NOT IDENT.
RA-223	-7.156E-01	9.917E-01	1.397E+00	0.000E+00	FAIL ABUN
AC-227	-4.087E-01	4.778E-01	7.959E-01	0.000E+00	NOT IDENT.
TH-227	-4.087E-01	4.794E-01	7.959E-01	0.000E+00	FAIL ABUN
TH-229	-5.954E-01	6.887E-01	1.109E+00	0.000E+00	FAIL ABUN
PA-231	1.179E+00	2.050E+00	3.649E+00	0.000E+00	NOT IDENT.
TH-231	-7.156E-01	9.917E-01	1.397E+00	0.000E+00	FAIL ABUN
U-231	-1.438E-01	1.568E+00	2.374E+00	0.000E+00	FAIL ABUN
PA-233	-7.973E-02	8.068E-02	1.318E-01	0.000E+00	FAIL ABUN
PA-234	1.279E-01	3.642E-01	6.332E-01	0.000E+00	FAIL ABUN
PA-234M	2.655E+00	5.917E+00	1.043E+01	0.000E+00	NOT IDENT.
U-235	-3.837E-01	2.863E-01	4.412E-01	0.000E+00	FAIL ABUN
NP-236	-4.013E-03	1.033E-01	1.749E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	5.399E-01	6.143E-01	0.000E+00	NOT IDENT.
NP-239	-5.370E-02	2.421E-01	4.131E-01	0.000E+00	FAIL ABUN
AM-241	-2.913E-02	3.381E-01	5.228E-01	0.000E+00	NOT IDENT.
CM-243	-4.809E-02	1.297E-01	2.213E-01	0.000E+00	FAIL ABUN
AM-246	-1.458E-02	1.888E-01	3.138E-01	0.000E+00	NOT IDENT.
CM-247	-3.698E-03	4.634E-02	7.881E-02	0.000E+00	NOT IDENT.
CF-249	1.070E-02	4.906E-02	8.508E-02	0.000E+00	NOT IDENT.
CF-251	-1.069E-01	1.701E-01	2.790E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:06:50.50

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837002.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:05:50
Sample ID         : G246837002           Sample quantity  : 1.26400E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.33  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1311	10.67*	9.664E-01	3.777E+01	3.777E+01	11.57
CD-109	88.03	222	3.72*	4.530E+00	3.903E+00	3.992E+00	44.90
SN-126	64.28	65	9.60	1.840E+00	1.088E+00	1.088E+00	95.35
	86.94	222	8.90	4.530E+00	1.631E+00	1.631E+00	60.43
	87.57	222	37.00*	4.530E+00	3.924E-01	3.924E-01	44.90
TL-208	277.35	------	6.80	3.705E+00	------ Line Not Found		------
	510.84	102	21.60	2.418E+00	5.811E-01	5.811E-01	67.16
	583.14	317	84.20*	2.191E+00	5.100E-01	5.100E-01	21.37
	860.37	------	12.46	1.576E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.001E+00	------ Line Not Found		------
	351.07	563	12.94*	3.141E+00	4.114E+00	4.114E+00	17.38
PB-212	74.81	226	10.70	3.268E+00	1.917E+00	1.917E+00	38.31
	77.11	385	18.00	3.514E+00	1.806E+00	1.806E+00	23.63
	87.30	222	8.00	4.530E+00	1.815E+00	1.815E+00	46.00
	238.63	1101	44.60*	4.114E+00	1.782E+00	1.782E+00	14.09
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
PO-212	74.81	226	10.70	3.268E+00	1.917E+00	1.917E+00	38.31
	77.11	385	18.00	3.514E+00	1.806E+00	1.806E+00	23.63
	87.30	222	8.00	4.530E+00	1.815E+00	1.815E+00	46.00
	115.19	------	0.60	5.586E+00	------ Line Not Found		------
	238.63	1101	44.60*	4.114E+00	1.782E+00	1.782E+00	14.09
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
BI-214	609.31	359	46.30*	2.117E+00	1.087E+00	1.087E+00	21.88
	1120.29	56	15.10	1.226E+00	8.989E-01	8.989E-01	91.63
	1764.49	64	15.80	8.555E-01	1.396E+00	1.396E+00	41.96
PB-214	74.81	226	6.21	3.268E+00	3.304E+00	3.304E+00	37.88
	77.11	385	10.50	3.514E+00	3.096E+00	3.096E+00	24.82
	87.30	222	4.67	4.530E+00	3.109E+00	3.109E+00	45.56
	241.98	275	7.49	4.081E+00	2.674E+00	2.674E+00	31.52
	295.21	326	19.20	3.546E+00	1.422E+00	1.422E+00	24.46
	351.92	563	37.20*	3.141E+00	1.431E+00	1.431E+00	18.14
PO-214	74.81	226	6.21	3.268E+00	3.304E+00	3.304E+00	37.88

Sample ID : G246837002 Acquisition date : 23-FEB-2010 12:05:50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	385	10.50	3.514E+00	3.096E+00	3.096E+00	24.82
	87.30	222	4.67	4.530E+00	3.109E+00	3.109E+00	45.56
	241.98	275	7.49	4.081E+00	2.674E+00	2.674E+00	31.52
	295.21	326	19.20	3.546E+00	1.422E+00	1.422E+00	24.46
	351.92	563	37.20*	3.141E+00	1.431E+00	1.431E+00	18.14
PO-216	74.81	226	10.70	3.268E+00	1.917E+00	1.917E+00	38.31
	77.11	385	18.00	3.514E+00	1.806E+00	1.806E+00	23.63
	87.30	222	8.00	4.530E+00	1.815E+00	1.815E+00	46.00
	238.63	1101	44.60*	4.114E+00	1.782E+00	1.782E+00	14.09
	300.09	------	3.41	3.507E+00	------	Line Not Found	------
PO-218	74.81	226	6.21	3.268E+00	3.304E+00	3.304E+00	37.88
	77.11	385	10.50	3.514E+00	3.096E+00	3.096E+00	24.82
	87.30	222	4.67	4.530E+00	3.109E+00	3.109E+00	45.56
	241.98	275	7.49	4.081E+00	2.674E+00	2.674E+00	31.52
	295.21	326	19.20	3.546E+00	1.422E+00	1.422E+00	24.46
	351.92	563	37.20*	3.141E+00	1.431E+00	1.431E+00	18.14
RA-224	240.98	275	3.95*	4.081E+00	5.070E+00	5.070E+00	31.02
RA-226	609.31	359	46.30*	2.117E+00	1.087E+00	1.087E+00	21.88
	1120.29	56	15.10	1.226E+00	8.989E-01	8.989E-01	91.63
	1764.49	64	15.80	8.555E-01	1.396E+00	1.396E+00	41.96
AC-228	338.32	210	11.40	3.229E+00	1.696E+00	1.696E+00	49.76
	911.07	254	27.70*	1.495E+00	1.822E+00	1.822E+00	20.01
	969.11	104	16.60	1.410E+00	1.320E+00	1.320E+00	51.23
RA-228	338.32	210	11.40	3.229E+00	1.696E+00	1.696E+00	49.76
	911.07	254	27.70*	1.495E+00	1.822E+00	1.822E+00	20.01
	969.11	104	16.60	1.410E+00	1.320E+00	1.320E+00	51.23
TH-228	74.81	226	10.70	3.268E+00	1.917E+00	1.946E+00	37.16
	77.11	385	18.00	3.514E+00	1.806E+00	1.833E+00	23.63
	87.30	222	8.00	4.530E+00	1.815E+00	1.842E+00	44.90
	238.63	1101	44.60*	4.114E+00	1.782E+00	1.808E+00	14.09
	300.09	------	3.41	3.507E+00	------	Line Not Found	------
TH-230	609.31	359	46.30*	2.117E+00	1.087E+00	1.087E+00	21.88
	1120.29	56	15.10	1.226E+00	8.989E-01	8.989E-01	91.63
	1764.49	64	15.80	8.555E-01	1.396E+00	1.396E+00	41.96
TH-232	338.32	210	11.40	3.229E+00	1.696E+00	1.696E+00	29.13
	911.07	254	27.70*	1.495E+00	1.822E+00	1.822E+00	20.01
	969.11	104	16.60	1.410E+00	1.320E+00	1.320E+00	51.23
TH-234	63.29	65	3.80*	1.840E+00	2.748E+00	2.748E+00	95.84
	92.38	209	5.41	4.859E+00	2.364E+00	2.364E+00	43.30
U-234	609.31	359	46.30*	2.117E+00	1.087E+00	1.087E+00	21.88
	1120.29	56	15.10	1.226E+00	8.989E-01	8.989E-01	91.63
	1764.49	64	15.80	8.555E-01	1.396E+00	1.396E+00	41.96
U-238	63.29	65	3.80*	1.840E+00	2.748E+00	2.748E+00	95.84
	92.38	209	5.41	4.859E+00	2.364E+00	2.364E+00	40.27
AM-243	74.67	226	66.00*	3.268E+00	3.109E-01	3.109E-01	37.15
	86.72	------	0.34	4.398E+00	------	Line Not Found	------
	117.66	------	0.55	5.611E+00	------	Line Not Found	------
	142.18	------	0.13	5.525E+00	------	Line Not Found	------
ANH-511	511.00	102	100.00*	2.418E+00	1.255E-01	1.255E-01	66.64

Flag: "*" = Keyline

Sample ID : G246837002 Acquisition date : 23-FEB-2010 12:05:50

Total number of lines in spectrum 24
Number of unidentified lines 1
Number of lines tentatively identified by NID 23 95.83%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.777E+01	3.777E+01	0.437E+01	11.57	
CD-109	464.00D	1.02	3.903E+00	3.992E+00	1.792E+00	44.90	
SN-126	1.00E+05Y	1.00	3.924E-01	3.924E-01	1.762E-01	44.90	
TL-208	1.41E+10Y	1.00	5.100E-01	5.100E-01	1.090E-01	21.37	
BI-211	7.04E+08Y	1.00	4.114E+00	4.114E+00	0.715E+00	17.38	
PB-212	1.41E+10Y	1.00	1.782E+00	1.782E+00	0.251E+00	14.09	
PO-212	1.41E+10Y	1.00	1.782E+00	1.782E+00	0.251E+00	14.09	
BI-214	1600.00Y	1.00	1.087E+00	1.087E+00	0.238E+00	21.88	
PB-214	1600.00Y	1.00	1.431E+00	1.431E+00	0.260E+00	18.14	
PO-214	1600.00Y	1.00	1.431E+00	1.431E+00	0.260E+00	18.14	
PO-216	1.41E+10Y	1.00	1.782E+00	1.782E+00	0.251E+00	14.09	
PO-218	1600.00Y	1.00	1.431E+00	1.431E+00	0.260E+00	18.14	
RA-224	1.41E+10Y	1.00	5.070E+00	5.070E+00	1.573E+00	31.02	
RA-226	1600.00Y	1.00	1.087E+00	1.087E+00	0.238E+00	21.88	
AC-228	1.41E+10Y	1.00	1.822E+00	1.822E+00	0.365E+00	20.01	
RA-228	1.41E+10Y	1.00	1.822E+00	1.822E+00	0.365E+00	20.01	
TH-228	1.91Y	1.02	1.782E+00	1.808E+00	0.255E+00	14.09	
TH-230	4.47E+09Y	1.00	1.087E+00	1.087E+00	0.238E+00	21.88	
TH-232	1.41E+10Y	1.00	1.822E+00	1.822E+00	0.365E+00	20.01	
TH-234	4.47E+09Y	1.00	2.748E+00	2.748E+00	2.634E+00	95.84	
U-234	4.47E+09Y	1.00	1.087E+00	1.087E+00	0.238E+00	21.88	
U-238	4.47E+09Y	1.00	2.748E+00	2.748E+00	2.634E+00	95.84	
AM-243	7380.00Y	1.00	3.109E-01	3.109E-01	1.155E-01	37.15	
ANH-511	1.00E+09Y	1.00	1.255E-01	1.255E-01	0.837E-01	66.64	
	Total Activity :		7.892E+01	7.904E+01			

Grand Total Activity : 7.892E+01 7.904E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246837002 Acquisition date : 23-FEB-2010 12:05:50

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.10	102	461	1.39	257.12	252	12	1.42E-02	86.1	5.63E+00	T
0	186.03	185	265	1.62	370.98	367	9	2.57E-02	37.1	4.86E+00	T
0	209.38	107	223	1.43	417.67	414	8	1.48E-02	52.5	4.50E+00	T
0	328.12	100	169	1.37	655.14	651	11	1.39E-02	54.0	3.30E+00	T
0	726.92	90	94	1.80	1452.77	1447	16	1.25E-02	52.8	1.83E+00	T
0	1587.87	26	15	1.47	3175.09	3169	10	3.62E-03	68.0	9.09E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:06:55.07

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837002.CNF;1  *
* Acquisition date : 23-FEB-2010 12:05:50  Detector SN#    :                *
* Detector ID      : GAM15                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.33         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 8-FEB-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G246837002            Analyst initials: MXR1           *
* Batch Number     : 952641                Sample Quantity : 1.26400E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.777E+01	4.369E+00	6.658E-01	6.542E-02	56.728
CD-109	3.992E+00	1.792E+00	1.712E+00	2.125E-01	2.332
SN-126	3.924E-01	1.762E-01	1.520E-01	1.881E-02	2.581
TL-208	5.100E-01	1.090E-01	6.942E-02	6.357E-03	7.346
BI-211	4.114E+00	7.148E-01	4.078E-01	4.061E-02	10.086
PB-212	1.782E+00	2.510E-01	1.166E-01	1.389E-02	15.276
PO-212	1.782E+00	2.510E-01	1.166E-01	1.389E-02	15.276
BI-214	1.087E+00	2.378E-01	1.467E-01	1.455E-02	7.409
PB-214	1.431E+00	2.596E-01	1.421E-01	1.595E-02	10.067
PO-214	1.431E+00	2.596E-01	1.421E-01	1.595E-02	10.067
PO-216	1.782E+00	2.510E-01	1.166E-01	1.389E-02	15.276
PO-218	1.431E+00	2.596E-01	1.421E-01	1.595E-02	10.067
RA-224	5.070E+00	1.573E+00	1.327E+00	1.463E-01	3.821
RA-226	1.087E+00	2.378E-01	1.467E-01	1.455E-02	7.409
AC-228	1.822E+00	3.646E-01	2.672E-01	3.148E-02	6.819
RA-228	1.822E+00	3.646E-01	2.672E-01	3.148E-02	6.819
TH-228	1.808E+00	2.548E-01	1.184E-01	1.410E-02	15.276
TH-230	1.087E+00	2.378E-01	1.467E-01	1.455E-02	7.409

Sample ID : G246837002 Acquisition date : 23-FEB-2010 12:05:50

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.822E+00	3.646E-01	2.672E-01	3.148E-02	6.819
TH-234	2.748E+00	2.634E+00	3.860E+00	7.520E-01	0.712
U-234	1.087E+00	2.378E-01	1.467E-01	1.455E-02	7.409
U-238	2.748E+00	2.634E+00	3.860E+00	7.520E-01	0.712
AM-243	3.109E-01	1.155E-01	1.298E-01	1.493E-02	2.395
ANH-511	1.255E-01	8.365E-02	5.694E-02	4.920E-03	2.204

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.366E-01		3.992E-01	6.660E-01	6.192E-02	0.205
NA-22	-2.863E-02		6.211E-02	9.581E-02	8.704E-03	-0.299
NA-24	-2.947E-01		3.713E-01	Half-Life too short		
AL-26	-4.526E-03		3.916E-02	6.293E-02	5.383E-03	-0.072
TI-44	3.333E-01	+	7.875E-02	1.119E-01	1.304E-02	2.978
SC-46	-9.976E-03		4.898E-02	7.942E-02	7.380E-03	-0.126
V-48	-8.849E-02		9.735E-02	1.464E-01	1.339E-02	-0.604
CR-51	1.835E-02		4.940E-01	8.217E-01	8.725E-02	0.022
MN-52	-6.247E-02		2.770E-01	4.476E-01	4.308E-02	-0.140
MN-54	1.291E-02		4.667E-02	7.900E-02	7.169E-03	0.163
CO-56	-1.726E-02		4.935E-02	7.928E-02	7.235E-03	-0.218
CO-57	2.231E-03		3.295E-02	5.369E-02	5.408E-03	0.042
CO-58	-2.345E-02		4.716E-02	7.485E-02	6.729E-03	-0.313
FE-59	-6.310E-02		1.217E-01	1.887E-01	1.761E-02	-0.334
CO-60	1.196E-02		5.558E-02	9.165E-02	8.811E-03	0.131
ZN-65	-4.981E-02		1.375E-01	1.826E-01	1.561E-02	-0.273
GE-68	-1.027E+00		1.742E+00	2.692E+00	2.356E-01	-0.382
AS-73	9.490E-01		2.027E+00	3.424E+00	4.445E-01	0.277
AS-74	1.949E-02		1.177E-01	1.922E-01	1.633E-02	0.101
SE-75	-1.256E-02		5.662E-02	9.369E-02	1.027E-02	-0.134
BR-77	5.662E+00		1.160E+01	1.955E+01	1.688E+00	0.290
SR-82	-2.951E-01		4.497E-01	7.059E-01	6.220E-02	-0.418
RB-83	4.464E-02		8.181E-02	1.351E-01	1.166E-02	0.331
RB-84	-1.018E-02		8.684E-02	1.420E-01	1.315E-02	-0.072
KR-85	2.477E+01		1.045E+01	1.740E+01	1.503E+00	1.423
SR-85	1.268E-01		5.350E-02	8.911E-02	7.699E-03	1.423
RB-86	-6.840E-01		1.097E+00	1.689E+00	1.479E-01	-0.405
Y-88	-4.292E-03		3.432E-02	5.463E-02	4.601E-03	-0.079
ZR-88	-1.861E-02		4.012E-02	6.413E-02	5.398E-03	-0.290
Y-91	1.289E+01		2.738E+01	4.601E+01	3.879E+00	0.280
NB-94	1.815E-02		4.109E-02	7.083E-02	5.979E-03	0.256
NB-95	2.159E-02		5.627E-02	9.606E-02	8.416E-03	0.225
NB-95M	3.168E-01		1.947E-01	3.032E-01	3.648E-02	1.045
ZR-95	-1.697E-02		8.306E-02	1.361E-01	1.304E-02	-0.125
NB-97	-6.988E-02		5.079E-02	Half-Life too short		
ZR-97	4.890E+00		1.240E+00	Half-Life too short		
MO-99	1.485E+00		1.382E+01	2.325E+01	3.531E+00	0.064

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TC-99M	-8.813E+09		1.845E+10	Half-Life too short		
RH-101	2.014E-02		4.437E-02	7.103E-02	7.749E-03	0.284
RH-102	-3.474E-02		3.768E-02	5.728E-02	4.942E-03	-0.607
RU-103	3.179E-02		5.446E-02	9.174E-02	1.300E-02	0.346
RH-106	-1.026E-01		4.015E-01	6.318E-01	8.353E-02	-0.162
RU-106	-1.026E-01		4.013E-01	6.318E-01	5.310E-02	-0.162
AG-108M	1.074E-02		4.021E-02	6.702E-02	5.966E-03	0.160
AG-110M	-2.800E-02		4.070E-02	6.461E-02	5.498E-03	-0.433
IN-111	5.510E-02		1.479E+00	2.165E+00	2.386E-01	0.025
IN-113M	-1.827E-02		5.806E-02	9.372E-02	8.140E-03	-0.195
SN-113	-1.827E-02		5.806E-02	9.372E-02	8.140E-03	-0.195
IN-114M	2.956E-01		2.800E-01	4.128E-01	4.482E-02	0.716
CD-115	5.472E+00		1.209E+01	2.031E+01	1.753E+00	0.269
SN-117M	-6.383E-02		7.360E-02	1.138E-01	1.193E-02	-0.561
SB-122	-7.772E-01		2.749E+00	4.258E+00	3.652E-01	-0.183
I-123	-4.723E+00		3.330E+00	Half-Life too short		
TE-123M	-2.690E-02		3.794E-02	5.913E-02	6.231E-03	-0.455
I-124	-7.553E-02		9.994E-01	1.377E+00	1.167E-01	-0.055
SB-124	-4.985E-02		8.318E-02	1.198E-01	1.126E-02	-0.416
SB-125	-3.343E-03		1.139E-01	1.863E-01	1.623E-02	-0.018
TE-125M	-1.573E+00		1.279E+01	2.041E+01	2.396E+00	-0.077
I-126	-2.385E-02		2.228E-01	3.709E-01	3.059E-02	-0.064
SB-126	-2.208E-02		2.011E-01	2.861E-01	2.442E-02	-0.077
SB-127	-2.093E-01		1.682E+00	2.792E+00	3.112E-01	-0.075
XE-127	-4.507E-02		6.330E-02	9.751E-02	1.067E-02	-0.462
I-131	7.394E-02		1.508E-01	2.555E-01	2.467E-02	0.289
TE-132	-7.589E-02		8.737E-01	1.464E+00	2.509E-01	-0.052
BA-133	-3.310E-03		6.106E-02	8.709E-02	1.198E-02	-0.038
I-133	-3.577E-04		3.343E-03	Half-Life too short		
CS-134	9.621E-02		5.706E-02	1.056E-01	9.462E-03	0.911
CS-135	5.016E-02		2.109E-01	3.560E-01	4.271E-02	0.141
I-135	2.641E+09		2.893E+09	Half-Life too short		
CS-136	2.378E-02		1.423E-01	2.362E-01	2.186E-02	0.101
BA-137M	5.324E-03		4.359E-02	7.376E-02	6.064E-03	0.072
CS-137	5.628E-03		4.607E-02	7.797E-02	6.424E-03	0.072
CE-139	1.578E-02		4.054E-02	6.621E-02	7.067E-03	0.238
BA-140	1.545E-01		3.159E-01	5.245E-01	1.738E-01	0.295
LA-140	-1.035E-01		9.436E-02	1.248E-01	1.170E-02	-0.829
CE-141	9.514E-03		8.167E-02	1.326E-01	1.371E-02	0.072
CE-143	8.651E-04		1.454E-04	Half-Life too short		
CE-144	-1.659E-01		3.085E-01	4.219E-01	6.921E-02	-0.393
PM-144	2.114E-02		4.277E-02	7.398E-02	6.224E-03	0.286
PR-144	1.432E+00		2.898E+00	5.013E+00	4.216E-01	0.286
PM-146	1.729E-02		5.813E-02	9.674E-02	1.036E-02	0.179
ND-147	-4.661E-01		6.974E-01	1.067E+00	1.595E-01	-0.437
PM-149	5.804E+01		1.193E+02	2.028E+02	3.410E+01	0.286
EU-152	1.547E-02		1.661E-01	2.104E-01	2.142E-02	0.074
GD-153	2.206E-02		1.190E-01	1.721E-01	1.899E-02	0.128

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154	-8.962E-02		1.743E-01	2.672E-01	3.116E-02	-0.335
EU-155	2.524E-02		1.470E-01	2.414E-01	2.544E-02	0.105
TB-160	-1.204E-01		1.766E-01	2.736E-01	2.532E-02	-0.440
HO-166M	-1.374E-02		7.313E-02	1.205E-01	1.023E-02	-0.114
TM-171	4.659E+01		5.302E+01	7.984E+01	9.113E+00	0.584
LU-176	2.597E-02		3.209E-02	5.535E-02	5.787E-03	0.469
LU-177	3.028E+00	+	1.626E+00	2.549E+00	2.796E-01	1.188
LU-177M	-1.653E-01		2.374E-01	3.729E-01	3.169E-02	-0.443
HF-181	2.536E-02		5.480E-02	9.204E-02	7.947E-03	0.275
W-181	7.808E-01		7.366E-01	1.115E+00	1.273E-01	0.700
TA-182	-1.483E-02		2.794E-01	4.508E-01	3.869E-02	-0.033
RE-183	-4.032E-02		1.496E-01	2.352E-01	2.488E-02	-0.171
RE-184	8.579E-02		3.018E-01	5.119E-01	5.629E-02	0.168
OS-185	1.708E-02		5.078E-02	8.387E-02	6.960E-03	0.204
RE-188	2.669E-01		2.301E-01	3.854E-01	4.008E-02	0.692
W-188	-5.118E+00		1.079E+01	1.508E+01	1.611E+00	-0.339
IR-192	-3.397E-03		4.525E-02	7.486E-02	7.718E-03	-0.045
AU-195	2.990E-01		3.229E-01	5.070E-01	5.525E-02	0.590
TL-200	4.171E-05		2.880E-04	Half-Life too short		
TL-201	3.788E+00		9.239E+00	1.510E+01	1.613E+00	0.251
TL-202	1.944E-02		8.434E-02	1.402E-01	1.202E-02	0.139
HG-203	1.603E-02		5.587E-02	9.438E-02	1.039E-02	0.170
BI-207	4.811E-02		7.021E-02	1.214E-01	1.071E-02	0.396
TL-207	-7.156E-01		1.012E+00	1.367E+00	2.529E-01	-0.524
PO-209	4.889E+00		9.102E+00	1.572E+01	1.465E+00	0.311
BI-210	1.400E+01		1.381E+01	2.334E+01	2.874E+00	0.600
PB-210	1.400E+01		1.381E+01	2.334E+01	2.874E+00	0.600
PO-210	1.400E+01		1.379E+01	2.334E+01	2.722E+00	0.600
PB-211	-1.564E+00		1.573E+00	1.865E+00	1.168E+00	-0.839
BI-212	1.238E+00	+	6.654E-01	8.072E-01	8.043E-02	1.533
PO-215	-7.156E-01		1.012E+00	1.367E+00	2.529E-01	-0.524
RN-219	1.757E-01		5.276E-01	8.835E-01	1.319E-01	0.199
RN-220	1.383E+01		3.262E+01	5.447E+01	4.687E+00	0.254
RA-223	-7.156E-01		1.012E+00	1.367E+00	2.529E-01	-0.524
AC-227	-4.087E-01		4.876E-01	7.761E-01	1.303E-01	-0.527
TH-227	-4.087E-01		4.891E-01	7.761E-01	1.498E-01	-0.527
TH-229	-5.954E-01		7.028E-01	1.077E+00	1.172E-01	-0.553
PA-231	1.179E+00		2.092E+00	3.563E+00	5.879E-01	0.331
TH-231	-7.156E-01		1.012E+00	1.367E+00	2.529E-01	-0.524
U-231	-1.438E-01		1.600E+00	2.283E+00	2.558E-01	-0.063
PA-233	-7.973E-02		8.232E-02	1.289E-01	1.364E-02	-0.618
PA-234	1.279E-01		3.716E-01	6.294E-01	1.199E-01	0.203
PA-234M	2.655E+00		6.037E+00	1.038E+01	1.076E+00	0.256
U-235	-3.837E-01		2.921E-01	4.267E-01	7.819E-02	-0.899
NP-236	-4.013E-03		1.054E-01	1.695E-01	1.784E-02	-0.024
NP-237	1.214E+00		5.509E-01	5.900E-01	1.416E-01	2.058
NP-239	-5.370E-02		2.471E-01	3.984E-01	4.022E-02	-0.135
AM-241	-2.913E-02		3.450E-01	4.995E-01	5.863E-02	-0.058

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-4.809E-02		1.324E-01	2.130E-01	2.245E-02	-0.226
AM-246	-1.458E-02		1.927E-01	3.125E-01	2.733E-02	-0.047
CM-247	-3.698E-03		4.729E-02	7.736E-02	6.542E-03	-0.048
CF-249	1.070E-02		5.006E-02	8.346E-02	7.120E-03	0.128
CF-251	-1.069E-01		1.736E-01	2.706E-01	2.910E-02	-0.395

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246837002            *
* Acquisition date : 23-FEB-2010 12:05:50 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.33     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  8-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G246837002           Analyst initials: MXR1            *
* Batch Number     : 952641               Sample Quantity : 1.2640E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.777E+01	4.281E+00	3.329E-01	2.184E+00
CD-109	3.992E+00	1.757E+00	8.915E-01	8.962E-01
SN-126	3.924E-01	1.727E-01	7.918E-02	8.810E-02
TL-208	5.100E-01	1.068E-01	3.519E-02	5.451E-02
BI-211	4.114E+00	7.005E-01	2.083E-01	3.574E-01
PB-212	1.782E+00	2.460E-01	5.989E-02	1.255E-01
PO-212	1.782E+00	2.460E-01	5.989E-02	1.255E-01
BI-214	1.087E+00	2.331E-01	7.433E-02	1.189E-01
PB-214	1.431E+00	2.544E-01	7.259E-02	1.298E-01
PO-214	1.431E+00	2.544E-01	7.259E-02	1.298E-01
PO-216	1.782E+00	2.460E-01	5.989E-02	1.255E-01
PO-218	1.431E+00	2.544E-01	7.259E-02	1.298E-01
RA-224	5.070E+00	1.541E+00	6.813E-01	7.864E-01
RA-226	1.087E+00	2.331E-01	7.433E-02	1.189E-01
AC-228	1.822E+00	3.573E-01	1.346E-01	1.823E-01
RA-228	1.822E+00	3.573E-01	1.346E-01	1.823E-01
TH-228	1.808E+00	2.497E-01	6.080E-02	1.274E-01
TH-230	1.087E+00	2.331E-01	7.433E-02	1.189E-01
TH-232	1.822E+00	3.573E-01	1.346E-01	1.823E-01
TH-234	2.748E+00	2.581E+00	2.019E+00	1.317E+00
U-234	1.087E+00	2.331E-01	7.433E-02	1.189E-01
U-238	2.748E+00	2.581E+00	2.019E+00	1.317E+00
AM-243	3.109E-01	1.132E-01	6.777E-02	5.774E-02
ANH-511	1.255E-01	8.198E-02	2.892E-02	4.183E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	1.366E-01	3.912E-01	3.386E-01	1.996E-01 NOT IDENT.
NA-22	-2.863E-02	6.086E-02	4.801E-02	3.105E-02 NOT IDENT.
NA-24	-2.947E+05	7.277E+05	0.000E+00	3.713E+05 SHORT HLIF

AL-26	-4.526E-03	3.838E-02	3.137E-02	1.958E-02	NOT IDENT.
TI-44	3.333E-01	7.717E-02	5.838E-02	3.937E-02	FAIL ABUN
SC-46	-9.976E-03	4.800E-02	4.001E-02	2.449E-02	FAIL ABUN
V-48	-8.849E-02	9.540E-02	7.366E-02	4.867E-02	NOT IDENT.
CR-51	1.835E-02	4.842E-01	4.202E-01	2.470E-01	NOT IDENT.
MN-52	-6.247E-02	2.715E-01	2.239E-01	1.385E-01	NOT IDENT.
MN-54	1.291E-02	4.574E-02	3.984E-02	2.334E-02	NOT IDENT.
CO-56	-1.726E-02	4.837E-02	3.997E-02	2.468E-02	NOT IDENT.
CO-57	2.231E-03	3.229E-02	2.783E-02	1.647E-02	NOT IDENT.
CO-58	-2.345E-02	4.622E-02	3.776E-02	2.358E-02	NOT IDENT.
FE-59	-6.310E-02	1.193E-01	9.479E-02	6.085E-02	NOT IDENT.
CO-60	1.196E-02	5.447E-02	4.589E-02	2.779E-02	NOT IDENT.
ZN-65	-4.981E-02	1.347E-01	9.171E-02	6.874E-02	NOT IDENT.
GE-68	-1.027E+00	1.707E+00	1.352E+00	8.710E-01	NOT IDENT.
AS-73	9.490E-01	1.987E+00	1.796E+00	1.014E+00	NOT IDENT.
AS-74	1.949E-02	1.154E-01	9.739E-02	5.887E-02	NOT IDENT.
SE-75	-1.256E-02	5.548E-02	4.804E-02	2.831E-02	NOT IDENT.
BR-77	5.662E+00	1.137E+01	9.925E+00	5.799E+00	FAIL ABUN
SR-82	-2.951E-01	4.407E-01	3.563E-01	2.249E-01	NOT IDENT.
RB-83	4.464E-02	8.018E-02	6.859E-02	4.091E-02	NOT IDENT.
RB-84	-1.018E-02	8.510E-02	7.155E-02	4.342E-02	NOT IDENT.
KR-85	2.477E+01	1.024E+01	8.838E+00	5.224E+00	NOT IDENT.
SR-85	1.268E-01	5.243E-02	4.526E-02	2.675E-02	NOT IDENT.
RB-86	-6.840E-01	1.075E+00	8.486E-01	5.486E-01	NOT IDENT.
Y-88	-4.292E-03	3.363E-02	2.722E-02	1.716E-02	NOT IDENT.
ZR-88	-1.861E-02	3.932E-02	3.270E-02	2.006E-02	NOT IDENT.
Y-91	1.289E+01	2.683E+01	2.307E+01	1.369E+01	NOT IDENT.
NB-94	1.815E-02	4.026E-02	3.581E-02	2.054E-02	NOT IDENT.
NB-95	2.159E-02	5.515E-02	4.850E-02	2.814E-02	NOT IDENT.
NB-95M	3.168E-01	1.908E-01	1.557E-01	9.733E-02	NOT IDENT.
ZR-95	-1.697E-02	8.140E-02	6.872E-02	4.153E-02	NOT IDENT.
NB-97	-6.988E+04	9.955E+04	0.000E+00	5.079E+04	SHORT HLIF
ZR-97	4.890E+06	2.431E+06	0.000E+00	1.240E+06	SHORT HLIF
MO-99	1.485E+00	1.354E+01	1.174E+01	6.910E+00	NOT IDENT.
TC-99M	-8.813E+15	3.615E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.014E-02	4.348E-02	3.657E-02	2.218E-02	NOT IDENT.
RH-102	-3.474E-02	3.693E-02	2.912E-02	1.884E-02	NOT IDENT.
RU-103	3.179E-02	5.337E-02	4.662E-02	2.723E-02	FAIL ABUN
RH-106	-1.026E-01	3.934E-01	3.200E-01	2.007E-01	FAIL ABUN
RU-106	-1.026E-01	3.933E-01	3.200E-01	2.007E-01	FAIL ABUN
AG-108M	1.074E-02	3.940E-02	3.412E-02	2.010E-02	NOT IDENT.
AG-110M	-2.800E-02	3.989E-02	3.270E-02	2.035E-02	NOT IDENT.
IN-111	5.510E-02	1.450E+00	1.111E+00	7.396E-01	NOT IDENT.
IN-113M	-1.827E-02	5.690E-02	4.779E-02	2.903E-02	NOT IDENT.
SN-113	-1.827E-02	5.690E-02	4.779E-02	2.903E-02	NOT IDENT.
IN-114M	2.956E-01	2.744E-01	2.127E-01	1.400E-01	NOT IDENT.
CD-115	5.472E+00	1.185E+01	1.031E+01	6.044E+00	NOT IDENT.
SN-117M	-6.383E-02	7.213E-02	5.877E-02	3.680E-02	NOT IDENT.
SB-122	-7.772E-01	2.694E+00	2.159E+00	1.374E+00	NOT IDENT.
I-123	-4.723E+06	6.528E+06	0.000E+00	3.330E+06	SHORT HLIF
TE-123M	-2.690E-02	3.718E-02	3.054E-02	1.897E-02	NOT IDENT.
I-124	-7.553E-02	9.794E-01	6.976E-01	4.997E-01	NOT IDENT.
SB-124	-4.985E-02	8.152E-02	5.975E-02	4.159E-02	FAIL ABUN
SB-125	-3.343E-03	1.116E-01	9.488E-02	5.695E-02	NOT IDENT.
TE-125M	-1.573E+00	1.253E+01	1.060E+01	6.394E+00	NOT IDENT.
I-126	-2.385E-02	2.183E-01	1.876E-01	1.114E-01	NOT IDENT.
SB-126	-2.208E-02	1.971E-01	1.446E-01	1.005E-01	FAIL ABUN
SB-127	-2.093E-01	1.648E+00	1.412E+00	8.410E-01	NOT IDENT.
XE-127	-4.507E-02	6.204E-02	5.019E-02	3.165E-02	NOT IDENT.
I-131	7.394E-02	1.478E-01	1.304E-01	7.540E-02	NOT IDENT.
TE-132	-7.589E-02	8.562E-01	7.523E-01	4.368E-01	NOT IDENT.
BA-133	-3.310E-03	5.984E-02	4.447E-02	3.053E-02	NOT IDENT.
I-133	-3.577E+02	6.552E+03	0.000E+00	3.343E+03	SHORT HLIF
CS-134	9.621E-02	5.592E-02	5.327E-02	2.853E-02	NOT IDENT.
CS-135	5.016E-02	2.066E-01	1.825E-01	1.054E-01	NOT IDENT.
I-135	2.641E+15	5.670E+15	0.000E+00	2.893E+15	SHORT HLIF
CS-136	2.378E-02	1.394E-01	1.187E-01	7.115E-02	NOT IDENT.
BA-137M	5.324E-03	4.271E-02	3.732E-02	2.179E-02	NOT IDENT.
CS-137	5.628E-03	4.515E-02	3.946E-02	2.304E-02	NOT IDENT.
CE-139	1.578E-02	3.973E-02	3.418E-02	2.027E-02	NOT IDENT.
BA-140	1.545E-01	3.096E-01	2.662E-01	1.580E-01	NOT IDENT.
LA-140	-1.035E-01	9.248E-02	6.233E-02	4.718E-02	FAIL ABUN
CE-141	9.514E-03	8.004E-02	6.857E-02	4.084E-02	NOT IDENT.
CE-143	8.651E+02	2.849E+02	0.000E+00	1.454E+02	SHORT HLIF
CE-144	-1.659E-01	3.023E-01	2.185E-01	1.542E-01	NOT IDENT.
PM-144	2.114E-02	4.192E-02	3.740E-02	2.139E-02	NOT IDENT.
PR-144	1.432E+00	2.840E+00	2.535E+00	1.449E+00	NOT IDENT.
PM-146	1.729E-02	5.696E-02	4.922E-02	2.906E-02	NOT IDENT.

ND-147	-4.661E-01	6.835E-01	5.415E-01	3.487E-01	NOT IDENT.
PM-149	5.804E+01	1.169E+02	1.039E+02	5.967E+01	NOT IDENT.
EU-152	1.547E-02	1.628E-01	1.075E-01	8.304E-02	NOT IDENT.
GD-153	2.206E-02	1.166E-01	8.951E-02	5.948E-02	NOT IDENT.
EU-154	-8.962E-02	1.708E-01	1.339E-01	8.715E-02	NOT IDENT.
EU-155	2.524E-02	1.441E-01	1.254E-01	7.350E-02	NOT IDENT.
TB-160	-1.204E-01	1.731E-01	1.379E-01	8.831E-02	NOT IDENT.
HO-166M	-1.374E-02	7.167E-02	6.091E-02	3.657E-02	NOT IDENT.
TM-171	4.659E+01	5.196E+01	4.174E+01	2.651E+01	NOT IDENT.
LU-176	2.597E-02	3.145E-02	2.832E-02	1.605E-02	FAIL ABUN
LU-177	3.028E+00	1.593E+00	1.311E+00	8.129E-01	FAIL ABUN
LU-177M	-1.653E-01	2.327E-01	1.900E-01	1.187E-01	NOT IDENT.
HF-181	2.536E-02	5.371E-02	4.679E-02	2.740E-02	NOT IDENT.
W-181	7.808E-01	7.219E-01	5.831E-01	3.683E-01	NOT IDENT.
TA-182	-1.483E-02	2.738E-01	2.260E-01	1.397E-01	FAIL ABUN
RE-183	-4.032E-02	1.466E-01	1.214E-01	7.482E-02	FAIL ABUN
RE-184	8.579E-02	2.958E-01	2.627E-01	1.509E-01	NOT IDENT.
OS-185	1.708E-02	4.976E-02	4.245E-02	2.539E-02	NOT IDENT.
RE-188	2.669E-01	2.255E-01	1.991E-01	1.150E-01	NOT IDENT.
W-188	-5.118E+00	1.058E+01	7.720E+00	5.396E+00	FAIL ABUN
IR-192	-3.397E-03	4.434E-02	3.829E-02	2.262E-02	FAIL ABUN
AU-195	2.990E-01	3.165E-01	2.636E-01	1.615E-01	FAIL ABUN
TL-200	4.171E+01	5.645E+02	0.000E+00	2.880E+02	SHORT HLIF
TL-201	3.788E+00	9.054E+00	7.792E+00	4.620E+00	NOT IDENT.
TL-202	1.944E-02	8.265E-02	7.136E-02	4.217E-02	NOT IDENT.
HG-203	1.603E-02	5.475E-02	4.836E-02	2.793E-02	NOT IDENT.
BI-207	4.811E-02	6.880E-02	6.100E-02	3.510E-02	FAIL ABUN
TL-207	-7.156E-01	9.917E-01	6.989E-01	5.059E-01	FAIL ABUN
PO-209	4.889E+00	8.919E+00	7.918E+00	4.551E+00	NOT IDENT.
BI-210	1.400E+01	1.353E+01	1.226E+01	6.903E+00	NOT IDENT.
PB-210	1.400E+01	1.353E+01	1.226E+01	6.903E+00	NOT IDENT.
PO-210	1.400E+01	1.352E+01	1.226E+01	6.897E+00	NOT IDENT.
PB-211	-1.564E+00	1.541E+00	9.506E-01	7.864E-01	NOT IDENT.
BI-212	1.238E+00	6.521E-01	4.079E-01	3.327E-01	FAIL ABUN
PO-215	-7.156E-01	9.917E-01	6.989E-01	5.059E-01	FAIL ABUN
RN-219	1.757E-01	5.170E-01	4.503E-01	2.638E-01	NOT IDENT.
RN-220	1.383E+01	3.197E+01	2.764E+01	1.631E+01	NOT IDENT.
RA-223	-7.156E-01	9.917E-01	6.989E-01	5.059E-01	FAIL ABUN
AC-227	-4.087E-01	4.778E-01	3.982E-01	2.438E-01	NOT IDENT.
TH-227	-4.087E-01	4.794E-01	3.982E-01	2.446E-01	FAIL ABUN
TH-229	-5.954E-01	6.887E-01	5.550E-01	3.514E-01	FAIL ABUN
PA-231	1.179E+00	2.050E+00	1.825E+00	1.046E+00	NOT IDENT.
TH-231	-7.156E-01	9.917E-01	6.989E-01	5.059E-01	FAIL ABUN
U-231	-1.438E-01	1.568E+00	1.188E+00	7.999E-01	FAIL ABUN
PA-233	-7.973E-02	8.068E-02	6.595E-02	4.116E-02	FAIL ABUN
PA-234	1.279E-01	3.642E-01	3.168E-01	1.858E-01	FAIL ABUN
PA-234M	2.655E+00	5.917E+00	5.220E+00	3.019E+00	NOT IDENT.
U-235	-3.837E-01	2.863E-01	2.207E-01	1.461E-01	FAIL ABUN
NP-236	-4.013E-03	1.033E-01	8.751E-02	5.269E-02	FAIL ABUN
NP-237	1.214E+00	5.399E-01	3.073E-01	2.755E-01	NOT IDENT.
NP-239	-5.370E-02	2.421E-01	2.066E-01	1.235E-01	FAIL ABUN
AM-241	-2.913E-02	3.381E-01	2.616E-01	1.725E-01	NOT IDENT.
CM-243	-4.809E-02	1.297E-01	1.107E-01	6.620E-02	FAIL ABUN
AM-246	-1.458E-02	1.888E-01	1.570E-01	9.634E-02	NOT IDENT.
CM-247	-3.698E-03	4.634E-02	3.943E-02	2.365E-02	NOT IDENT.
CF-249	1.070E-02	4.906E-02	4.256E-02	2.503E-02	NOT IDENT.
CF-251	-1.069E-01	1.701E-01	1.396E-01	8.678E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	255.8652
46.50	255.8652
46.50	255.8652
48.70	306.4858
49.72	298.4063
51.35	284.8308
52.39	272.8282
52.97	267.3156
53.15	267.3936
53.44	255.0088
54.07	278.3851
56.28	309.3231
56.28	309.3250
57.37	0.0000
57.53	292.2152
57.53	292.2161
57.60	292.2466
57.98	299.8018
57.98	299.8018
59.32	312.3278
59.32	312.3278
59.40	321.6902
59.54	321.7578
59.72	321.8456
60.01	289.3206
61.10	319.3954
61.14	319.4141
61.30	319.4904
63.00	369.1165
63.29	373.1798
63.29	373.1798
63.58	362.5870
64.28	389.7604
65.12	372.9924
65.20	373.0356
65.20	373.0356
66.05	376.6263
66.72	353.4219
66.83	342.4805
66.91	342.5197
67.20	342.6594
67.20	342.6594
67.75	374.3837
67.85	392.0056
68.90	418.6508
68.90	418.6508
69.30	430.1414
69.67	436.3714
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72.87	370.6816
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74.81	416.1089
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77.11	417.3610
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81.07	419.4751
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83.78	420.8919
83.78	420.8919
84.21	421.1158
84.90	329.7774
85.43	329.9907
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86.50	330.4199
86.54	330.4349
86.59	330.4549
86.72	330.5074
86.79	330.5337
86.94	330.5950
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88.47	411.9828
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92.38	426.0562
92.38	426.0562
93.35	365.6003
94.00	349.6138
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94.67	361.2744
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94.90	366.2526
94.90	366.2526
94.90	366.2526
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95.87	379.6944
96.73	362.1226
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98.44	338.3017
98.44	338.3030
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99.55	350.6431
99.55	350.6431
99.86	350.9095
100.00	350.9645
100.10	351.0037
103.18	381.9661
103.76	378.0976
105.00	371.4013
105.31	366.3795
108.00	355.0439
109.28	367.9249

111.00	366.5142
111.00	366.5142
111.76	368.8755
112.95	343.3918
115.19	324.4220
116.30	325.8271
117.00	333.3484
117.00	333.3484
117.66	352.3326
121.11	314.8407
121.62	321.2770
121.78	324.4674
122.06	321.4164
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122.32	308.7809
122.32	308.7809
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136.48	343.8693
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142.65	331.9110
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144.24	374.0593
144.24	374.0593
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145.44	335.9392
147.16	325.7322
152.43	350.8942
152.70	334.8247
153.22	310.2012
154.21	293.2126
154.21	293.2126
154.21	293.2126
154.21	293.2126
155.03	309.5970
156.02	330.3685
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162.32	331.0132
162.64	328.9281
163.35	323.6890
163.89	327.0923
165.85	322.1692
167.43	314.9516
171.28	341.0620
171.86	342.3127
172.10	328.1570
176.55	342.4735
176.60	333.7061
181.06	271.4081
184.41	316.2719
185.71	328.2993
186.00	328.3695
190.27	278.6175
192.34	294.5313
193.63	331.3440
197.04	277.5490
198.01	268.8211
198.60	258.8919
200.40	281.5735
201.83	310.9429
202.84	311.1656
205.31	279.8669

208.36	293.0518
208.81	292.2441
209.75	283.4366
209.75	283.4366
210.97	247.6544
215.65	299.1479
216.55	281.1509
218.09	266.9656
222.10	275.8544
223.80	280.7102
226.40	283.0150
227.00	282.2166
227.08	268.5771
227.20	268.5969
228.16	264.2126
228.18	264.2161
228.18	264.2161
231.56	0.0000
235.69	280.7711
236.00	280.8272
236.00	280.8272
238.63	240.3287
238.63	240.3287
238.63	240.3287
238.63	240.3287
239.00	240.3847
240.98	240.6885
241.98	225.2149
241.98	225.2149
241.98	225.2149
244.69	205.6496
245.39	221.0933
247.94	232.9799
248.90	228.9641
249.79	231.8625
252.40	201.7045
252.85	213.7920
252.85	213.7920
254.15	0.0000
256.20	226.2868
256.20	226.2868
260.50	210.1425
260.90	206.4719
262.80	205.7766
264.65	211.5988
268.24	234.4699
268.79	209.3164
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269.46	195.3762
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273.65	327.0555
276.40	202.7426
277.35	203.7925
277.60	205.7028
277.60	205.7028
278.00	209.5062
278.60	218.9779
279.20	230.3365
279.53	230.3784
280.46	264.3739
281.68	244.7878
283.67	203.5916
284.30	214.0373
285.00	200.9173
285.90	199.1338
286.10	191.6035
286.10	191.6035
287.40	200.2458
288.45	0.0000
290.67	201.8776
290.80	201.8932
291.72	214.6222
293.26	0.0000
293.70	172.2041
295.21	221.0485
295.21	221.0485

295.21	221.0485
295.96	256.2561
296.50	248.4236
297.23	235.8591
298.57	180.5905
299.80	174.3703
299.80	174.3703
300.09	172.8140
300.09	172.8140
300.09	172.8140
300.09	172.8140
300.12	172.8162
301.29	174.5135
302.84	208.5350
303.76	238.2965
303.91	238.3148
304.40	232.6578
304.40	232.6578
304.84	223.1769
306.84	161.3566
308.46	169.1439
311.98	186.6973
316.51	176.5924
318.01	187.2971
319.02	167.2159
319.41	173.9805
320.08	179.8094
323.87	194.2986
323.87	194.2986
323.87	194.2986
323.87	194.2986
325.23	188.0089
328.77	180.6290
333.44	150.0787
334.20	140.4510
334.20	140.4510
334.30	150.1449
338.28	182.4807
338.28	182.4807
338.28	182.4807
338.28	182.4807
338.32	182.4853
338.32	182.4853
338.32	182.4853
340.50	158.7157
340.57	158.7216
344.27	160.6414
345.85	180.2553
350.59	0.0000
351.07	144.5782
351.92	144.6396
351.92	144.6396
351.92	144.6396
355.39	0.0000
356.01	140.3606
364.48	141.5971
366.43	150.5870
367.43	156.5680
367.94	0.0000
369.80	155.7608
374.96	157.1309
383.85	145.8803
387.95	130.2500
388.63	140.2358
391.69	148.4016
391.69	148.4016
392.90	150.4784
398.62	148.8727
400.65	130.0079
401.10	135.0363
401.81	131.0768
402.60	138.1314
404.84	168.3302
410.95	127.5969
411.60	128.6391
413.65	159.9394
414.70	156.9940
415.30	149.9895

415.76	144.9861
417.63	0.0000
418.52	141.1296
423.70	138.4182
427.08	117.3735
427.89	116.4024
432.53	99.3937
433.93	107.5722
439.47	106.8098
439.56	106.8137
439.89	118.0192
443.98	111.0903
444.90	123.3677
445.03	123.3751
445.03	123.3751
445.03	123.3751
445.03	123.3751
453.90	122.8096
463.38	113.0172
468.07	154.4092
473.00	101.0828
475.06	126.9744
475.35	129.0543
476.78	96.0720
477.59	100.2361
477.96	101.2850
482.03	104.5557
484.57	112.9504
487.03	98.5393
490.36	0.0000
492.35	113.2991
497.08	107.2598
507.63	0.0000
510.53	0.0000
510.84	99.4572
511.00	99.4630
511.85	99.4949
511.85	99.4949
513.99	85.6010
513.99	85.6010
520.41	75.8862
520.65	75.6598
527.90	75.8654
528.96	0.0000
529.64	85.4060
529.87	0.0000
531.02	103.3833
537.32	82.4770
543.00	78.4118
546.56	0.0000
549.76	87.1030
552.65	89.3218
555.20	108.5618
563.23	100.3363
563.90	112.1034
568.70	100.5313
569.32	90.9268
569.50	88.7934
569.67	80.2386
573.80	80.3558
574.00	80.3613
574.64	76.2118
578.91	85.8672
579.30	0.0000
583.14	85.9941
585.48	102.2015
591.81	109.0154
592.07	111.0620
593.00	106.7827
595.88	95.0125
600.56	121.1191
602.52	0.0000
602.71	110.0264
602.71	110.0264
603.60	113.6671
604.41	119.1121
604.70	119.1255
609.31	108.4644

609.31	108.4644
609.31	108.4644
609.31	108.4644
610.33	108.5034
612.46	97.7234
614.37	77.8658
618.01	88.5814
621.84	89.3171
621.84	89.3171
631.29	77.5782
633.02	90.7407
633.10	92.9293
634.78	87.5117
635.90	75.5075
636.97	72.2487
645.85	72.4598
646.12	69.1708
656.30	90.8809
657.75	88.1680
657.90	0.0000
661.65	87.3578
661.65	87.3578
664.57	0.0000
666.33	93.0128
666.33	93.0128
675.00	86.8035
677.61	90.5730
685.20	88.9355
692.80	85.4302
695.00	89.2051
696.49	83.6682
696.49	83.6682
697.00	91.1193
697.49	97.6428
698.33	98.5986
698.50	96.7425
699.00	93.9662
702.63	81.9629
706.10	89.5098
706.58	0.0000
706.67	88.5928
709.31	78.3962
711.68	82.1885
713.82	87.8496
717.42	78.5894
720.50	81.8736
721.93	0.0000
722.20	65.8528
722.78	67.4707
722.78	67.4707
722.89	67.4736
722.95	67.4751
723.30	61.0542
724.18	77.1429
727.18	76.9434
733.00	56.3977
735.90	79.0251
739.58	74.4016
742.81	60.3320
744.21	56.5845
747.13	84.9500
751.79	57.6554
752.31	49.1563
753.82	54.8517
755.35	68.1226
756.15	71.9242
756.87	84.2433
763.93	102.4365
765.79	95.8485
766.42	90.1719
766.84	95.8773
776.49	77.1042
778.00	68.5664
778.57	75.2454
778.89	67.6314
783.80	58.1865
785.46	51.5336
792.07	75.5331

795.84	54.5554
796.30	64.1361
798.80	98.6643
801.93	64.2356
805.60	64.3010
810.29	73.9953
810.76	71.1214
815.85	64.4837
817.79	62.5919
818.51	69.3472
819.60	65.5139
826.30	75.2848
828.27	0.0000
831.60	86.0268
831.96	76.3673
834.83	73.5245
836.80	0.0000
846.75	72.7905
848.13	65.0494
856.28	0.0000
856.80	80.7710
860.37	69.1583
867.32	64.4061
867.82	65.3902
871.10	72.2837
873.19	60.5948
874.81	47.9104
875.33	0.0000
876.40	59.6684
879.36	72.4403
880.27	72.4568
880.51	70.5029
881.50	63.6643
883.24	55.8542
884.67	62.7370
889.25	64.7740
896.60	54.0802
898.02	59.0186
899.00	71.8237
903.28	66.4851
911.07	64.1497
911.07	64.1497
911.07	64.1497
919.63	53.4089
920.93	60.3522
925.00	56.4526
925.24	53.4847
926.50	58.4550
935.52	61.5661
937.48	80.4710
944.10	55.7260
946.00	54.7561
949.00	60.7754
962.29	65.1137
964.01	65.1415
966.15	80.6108
968.20	74.0738
969.11	51.4913
969.11	51.4913
969.11	51.4913
977.42	44.1414
980.50	65.2579
983.50	80.3743
989.30	60.3650
996.32	61.4741
1001.03	55.4890
1001.68	59.5342
1004.76	78.7633
1021.30	0.0000
1024.50	0.0000
1034.80	53.8950
1036.00	61.0303
1037.82	65.1250
1038.57	59.0313
1038.76	0.0000
1045.16	58.1017
1046.59	55.0613
1048.07	61.1987

1050.47	58.1713
1050.47	58.1713
1062.04	59.3476
1063.62	56.2980
1076.63	75.9692
1077.35	75.9813
1078.86	65.7344
1085.78	67.8933
1099.22	70.1610
1112.02	66.7361
1112.84	70.9626
1115.52	72.7796
1120.29	55.9731
1120.29	55.9731
1120.29	55.9731
1120.29	55.9731
1120.51	55.9753
1121.28	55.9863
1124.00	0.0000
1129.67	59.5496
1131.51	0.0000
1147.95	0.0000
1167.94	64.9264
1173.22	63.9487
1175.09	53.4861
1177.93	68.2109
1189.05	78.8879
1204.90	79.1473
1205.75	0.0000
1213.00	90.9061
1221.42	84.7103
1230.97	93.3604
1235.34	69.0202
1236.41	0.0000
1238.25	66.9375
1246.25	64.9167
1260.41	0.0000
1271.85	55.6224
1274.45	63.1412
1274.54	62.0734
1291.56	47.2477
1298.22	0.0000
1312.09	38.8110
1325.50	48.6401
1325.50	48.6401
1332.49	43.2943
1333.61	50.8803
1360.21	28.9111
1362.66	0.0000
1365.15	25.2042
1368.21	26.1523
1368.53	0.0000
1376.25	32.7393
1384.27	37.4721
1394.10	29.0939
1395.20	22.5293
1407.95	33.8730
1434.06	27.4161
1436.60	27.4292
1457.56	0.0000
1460.81	24.6987
1489.15	19.0946
1509.49	17.2460
1596.49	25.2827
1620.62	14.6448
1678.03	0.0000
1691.02	15.8002
1691.02	15.8002
1706.46	0.0000
1750.46	0.0000
1764.49	13.9854
1764.49	13.9854
1764.49	13.9854
1764.49	13.9854
1770.23	8.7485
1771.40	45.0000
1791.20	0.0000
1808.65	16.0910

1836.01 10.0984

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246837002

Total Uranium Activity	7.9981E+00	ug/g
Total Uranium Counting Unc.	7.6798E+00	ug/g
Total Uranium Tpu	3.9183E-06	ug/g
Total Uranium Mda	6.0086E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 952641                    SAMPLE ID  : G246837002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  8-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 12:05:50.31    SAMPLE ALQT:  126.400 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.629E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.437E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 2.703E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.307E+00
```

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:07:45.90

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837003.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:06:16
Sample ID         : G246837003           Sample quantity  : 1.45530E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.28  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.51*	133	483	1.01	126.67	124	7	1.85E-02	29.6	
2	3	74.92*	530	478	0.95	149.48	143	15	7.37E-02	7.9	2.41E+00
3	3	77.15*	882	377	0.90	153.95	143	15	1.23E-01	4.9	
4	0	84.23*	121	434	1.02	168.11	165	7	1.69E-02	30.2	
5	0	87.19*	221	503	0.97	174.03	171	7	3.07E-02	18.3	
6	5	90.11	121	278	0.94	179.87	178	16	1.69E-02	20.9	1.89E+00
7	5	92.97*	303	527	1.50	185.59	178	16	4.21E-02	15.5	
8	0	185.83*	206	375	1.21	371.40	365	12	2.85E-02	20.6	
9	0	208.94	60	255	0.97	417.63	414	8	8.32E-03	47.9	
10	7	238.57*	1099	141	1.03	476.92	471	17	1.53E-01	3.6	1.31E+00
11	7	241.55	254	199	1.64	482.87	471	17	3.53E-02	14.1	
12	0	270.00	92	213	1.32	539.80	535	11	1.28E-02	32.7	
13	0	277.89	63	165	2.35	555.58	550	10	8.73E-03	40.5	
14	0	295.18*	339	184	1.08	590.19	585	11	4.71E-02	9.6	
15	0	300.08	63	134	1.06	599.98	596	8	8.78E-03	34.1	
16	0	327.41	60	191	1.20	654.66	650	12	8.31E-03	47.8	
17	0	338.03*	237	196	1.22	675.92	670	13	3.30E-02	14.0	
18	0	351.76*	487	186	1.16	703.39	697	12	6.77E-02	7.3	
19	0	463.29	48	80	1.29	926.56	921	8	6.65E-03	35.7	
20	0	510.56*	129	134	2.09	1021.15	1013	16	1.80E-02	24.1	
21	0	582.97*	318	91	1.43	1166.05	1161	13	4.41E-02	8.6	
22	0	609.04*	330	76	1.23	1218.22	1213	12	4.58E-02	7.9	
23	0	726.79*	63	47	1.65	1453.85	1449	9	8.70E-03	24.8	
24	0	794.52	78	61	1.68	1589.39	1582	17	1.09E-02	25.3	
25	0	860.19	41	42	1.99	1720.81	1716	10	5.64E-03	32.2	
26	0	910.52*	188	57	1.39	1821.55	1814	13	2.61E-02	11.1	
27	0	967.65	142	64	1.76	1935.88	1927	16	1.97E-02	15.1	
28	0	1119.21*	54	63	1.09	2239.23	2233	12	7.43E-03	33.2	
29	0	1459.56*	1062	25	1.92	2920.48	2912	16	1.48E-01	3.2	
30	0	1763.24	57	11	1.54	3528.42	3522	14	7.89E-03	18.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 14:07:48

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 8-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 12:06:16
Sample ID : G246837003 Sample quantity : 145.53 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:10.28 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.300E+01	3.629E+00	4.135E-01	3.672E-02	79.788
CD-109	+	88.03	*	2.346E+00	8.903E-01	1.000E+00	9.764E-02	2.346
SN-126	+	64.28		5.279E-01	3.237E-01	3.770E-01	6.018E-02	1.400
	+	86.94		9.589E-01	5.318E-01	4.088E-01	1.701E-01	2.346
	+	87.57	*	2.307E-01	8.752E-02	9.818E-02	9.581E-03	2.349
HG-203		70.83		-6.753E-02	6.412E-01	9.722E-01	1.398E-01	-0.069
		72.87		4.189E-01	3.578E-01	6.176E-01	8.638E-02	0.678
		82.60		-1.684E-01	7.738E-01	1.157E+00	1.675E-01	-0.146
	+	279.20	*	7.366E-02	6.000E-02	5.691E-02	5.356E-03	1.294
TL-208	+	277.35		6.694E-01	5.483E-01	5.912E-01	7.527E-02	1.132
	+	510.84		7.505E-01	3.729E-01	2.260E-01	2.761E-02	3.321
	+	583.14	*	5.372E-01	1.054E-01	6.759E-02	6.393E-03	7.947
	+	860.37		6.741E-01	4.382E-01	5.027E-01	4.729E-02	1.341
BI-211		72.87		2.109E+00	1.790E+00	3.110E+00	3.041E-01	0.678
	+	351.07	*	3.340E+00	5.777E-01	3.249E-01	3.032E-02	10.280
PB-212	+	74.81		1.882E+00	3.924E-01	3.433E-01	4.640E-02	5.481
	+	77.11		1.864E+00	2.565E-01	2.050E-01	1.999E-02	9.092
	+	87.30		1.067E+00	4.186E-01	4.658E-01	6.508E-02	2.290
	+	238.63	*	1.580E+00	1.948E-01	8.929E-02	9.002E-03	17.696
	+	300.09		1.431E+00	9.889E-01	1.155E+00	1.257E-01	1.239
PO-212	+	74.81		1.882E+00	3.924E-01	3.433E-01	4.640E-02	5.481
	+	77.11		1.864E+00	2.565E-01	2.050E-01	1.999E-02	9.092
	+	87.30		1.067E+00	4.186E-01	4.658E-01	6.508E-02	2.290
		115.19		-1.000E+00	3.153E+00	5.153E+00	5.802E-01	-0.194
	+	238.63	*	1.580E+00	1.948E-01	8.929E-02	9.002E-03	17.696
	+	300.09		1.431E+00	9.889E-01	1.155E+00	1.257E-01	1.239
BI-214	+	609.31	*	1.057E+00	1.984E-01	1.253E-01	1.274E-02	8.440
	+	1120.29		9.351E-01	6.291E-01	6.359E-01	6.798E-02	1.471
	+	1764.49		1.381E+00	5.110E-01	4.486E-01	3.793E-02	3.078
PB-214	+	74.81		3.243E+00	6.503E-01	5.916E-01	7.249E-02	5.481
	+	77.11		3.196E+00	5.027E-01	3.515E-01	4.349E-02	9.092
	+	87.30		1.828E+00	7.076E-01	7.980E-01	9.923E-02	2.290
	+	241.98		2.197E+00	6.637E-01	5.383E-01	5.731E-02	4.082
	+	295.21		1.345E+00	2.993E-01	2.006E-01	2.228E-02	6.705

Sample ID : G246837003 Acquisition date : 23-FEB-2010 12:06:16

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.162E+00	2.099E-01	1.133E-01	1.211E-02	10.255
PO-214	+	74.81		3.243E+00	6.503E-01	5.916E-01	7.249E-02	5.481
	+	77.11		3.196E+00	5.027E-01	3.515E-01	4.349E-02	9.092
	+	87.30		1.828E+00	7.076E-01	7.980E-01	9.923E-02	2.290
	+	241.98		2.197E+00	6.637E-01	5.383E-01	5.731E-02	4.082
	+	295.21		1.345E+00	2.993E-01	2.006E-01	2.228E-02	6.705
	+	351.92	*	1.162E+00	2.099E-01	1.133E-01	1.211E-02	10.255
PO-216	+	74.81		1.882E+00	3.924E-01	3.433E-01	4.640E-02	5.481
	+	77.11		1.864E+00	2.565E-01	2.050E-01	1.999E-02	9.092
	+	87.30		1.067E+00	4.186E-01	4.658E-01	6.508E-02	2.290
	+	238.63	*	1.580E+00	1.948E-01	8.929E-02	9.002E-03	17.696
	+	300.09		1.431E+00	9.889E-01	1.155E+00	1.257E-01	1.239
PO-218	+	74.81		3.243E+00	6.503E-01	5.916E-01	7.249E-02	5.481
	+	77.11		3.196E+00	5.027E-01	3.515E-01	4.349E-02	9.092
	+	87.30		1.828E+00	7.076E-01	7.980E-01	9.923E-02	2.290
	+	241.98		2.197E+00	6.637E-01	5.383E-01	5.731E-02	4.082
	+	295.21		1.345E+00	2.993E-01	2.006E-01	2.228E-02	6.705
	+	351.92	*	1.162E+00	2.099E-01	1.133E-01	1.211E-02	10.255
RA-224	+	240.98	*	4.166E+00	1.237E+00	1.017E+00	9.197E-02	4.097
RA-226	+	609.31	*	1.057E+00	1.984E-01	1.253E-01	1.274E-02	8.440
	+	1120.29		9.351E-01	6.291E-01	6.359E-01	6.798E-02	1.471
	+	1764.49		1.381E+00	5.110E-01	4.486E-01	3.793E-02	3.078
AC-228	+	338.32		1.783E+00	8.903E-01	3.676E-01	1.520E-01	4.851
	+	911.07	*	1.481E+00	3.702E-01	2.296E-01	2.604E-02	6.451
	+	969.11		1.976E+00	7.558E-01	4.878E-01	1.141E-01	4.051
RA-228	+	338.32		1.783E+00	8.903E-01	3.676E-01	1.520E-01	4.851
	+	911.07	*	1.481E+00	3.702E-01	2.296E-01	2.604E-02	6.451
	+	969.11		1.976E+00	7.558E-01	4.878E-01	1.141E-01	4.051
TH-228	+	74.81		1.910E+00	3.567E-01	3.485E-01	3.424E-02	5.481
	+	77.11		1.892E+00	2.604E-01	2.081E-01	2.029E-02	9.092
	+	87.30		1.083E+00	4.109E-01	4.728E-01	4.613E-02	2.290
	+	238.63	*	1.604E+00	1.978E-01	9.063E-02	9.137E-03	17.696
	+	300.09		1.452E+00	1.314E+00	1.172E+00	6.958E-01	1.239
TH-230	+	609.31	*	1.057E+00	1.984E-01	1.253E-01	1.274E-02	8.440
	+	1120.29		9.351E-01	6.291E-01	6.359E-01	6.798E-02	1.471
	+	1764.49		1.381E+00	5.110E-01	4.486E-01	3.793E-02	3.078
TH-232	+	338.32		1.783E+00	5.243E-01	3.676E-01	3.312E-02	4.851
	+	911.07	*	1.481E+00	3.702E-01	2.296E-01	2.604E-02	6.451
	+	969.11		1.976E+00	7.558E-01	4.878E-01	1.141E-01	4.051
TH-234	+	63.29	*	1.334E+00	8.279E-01	9.375E-01	1.750E-01	1.423
	+	92.38		2.191E+00	7.931E-01	5.798E-01	1.088E-01	3.778
U-234	+	609.31	*	1.057E+00	1.984E-01	1.253E-01	1.274E-02	8.440
	+	1120.29		9.351E-01	6.291E-01	6.359E-01	6.798E-02	1.471
	+	1764.49		1.381E+00	5.110E-01	4.486E-01	3.793E-02	3.078
NP-237	+	86.50	*	6.773E-01	2.926E-01	2.566E-01	5.857E-02	2.640
		95.87		1.228E-01	7.862E-01	1.189E+00	2.996E-01	0.103
U-238	+	63.29	*	1.334E+00	8.279E-01	9.375E-01	1.750E-01	1.423
	+	92.38		2.191E+00	7.126E-01	5.798E-01	5.779E-02	3.778
AM-243	+	74.67	*	3.051E-01	5.686E-02	5.565E-02	5.433E-03	5.483

Sample ID : G246837003 Acquisition date : 23-FEB-2010 12:06:16

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	86.72		2.540E+01	9.638E+00	9.629E+00	9.392E-01	2.638
		117.66		-1.103E+00	3.401E+00	5.549E+00	6.336E-01	-0.199
		142.18		-1.181E+01	1.611E+01	2.546E+01	2.626E+00	-0.464
ANH-511	+	511.00	*	1.621E-01	7.940E-02	4.884E-02	4.362E-03	3.319

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	4.348E-03	3.482E-01	5.715E-01	5.437E-02	0.008
NA-22		1274.54	*	-2.534E-03	6.120E-02	9.788E-02	8.246E-03	-0.026
NA-24		1368.53	*	-7.194E-01	6.120E-02	Half-Life too short		
AL-26		1129.67		-9.864E-01	2.396E+00	3.734E+00	3.121E-01	-0.264
		1808.65	*	1.120E-02	2.862E-02	5.158E-02	4.323E-03	0.217
TI-44		67.85		1.690E-02	2.467E-02	4.066E-02	4.005E-03	0.416
	+	78.38	*	3.440E-01	4.734E-02	5.642E-02	5.497E-03	6.097
SC-46		889.25	*	-1.596E-02	4.719E-02	7.540E-02	6.601E-03	-0.212
	+	1120.51		1.599E-01	1.071E-01	1.533E-01	1.286E-02	1.043
V-48		944.10		-2.345E-01	9.800E-01	1.570E+00	1.373E-01	-0.149
		983.50	*	-1.134E-01	1.016E-01	1.484E-01	1.295E-02	-0.764
		1312.09		1.469E-03	9.011E-02	1.515E-01	1.286E-02	0.010
CR-51		320.08	*	3.387E-02	3.501E-01	5.927E-01	5.660E-02	0.057
MN-52		744.21		6.775E-02	2.751E-01	4.711E-01	4.095E-02	0.144
		848.13		4.427E+00	7.466E+00	1.311E+01	1.153E+00	0.338
		935.52		2.637E-01	3.155E-01	5.590E-01	4.891E-02	0.472
		1246.25		-1.182E+00	9.457E+00	1.503E+01	1.255E+00	-0.079
		1333.61		-2.257E+00	6.081E+00	9.721E+00	8.287E-01	-0.232
		1434.06	*	1.375E-01	2.264E-01	4.151E-01	3.579E-02	0.331
MN-54		834.83	*	-3.328E-02	4.460E-02	6.891E-02	6.059E-03	-0.483
CO-56		846.75	*	-5.708E-03	4.541E-02	7.450E-02	6.549E-03	-0.077
		977.42		-9.460E-01	3.994E+00	6.412E+00	5.597E-01	-0.148
		1037.82		-5.400E-01	4.106E-01	5.707E-01	5.190E-02	-0.946
		1175.09		-6.285E-02	3.084E+00	4.979E+00	4.070E-01	-0.013
		1238.25		8.733E-02	1.174E-01	2.010E-01	1.728E-02	0.434
		1360.21		-7.171E-01	1.208E+00	1.858E+00	1.590E-01	-0.386
		1771.40		2.099E-02	2.865E-01	4.754E-01	4.015E-02	0.044
CO-57		122.06	*	-1.684E-02	2.256E-02	3.588E-02	4.203E-03	-0.469
		136.48		-1.471E-02	1.870E-01	3.063E-01	3.447E-02	-0.048
CO-58		810.76	*	-4.346E-02	4.586E-02	6.901E-02	6.078E-03	-0.630
FE-59		142.65		-1.320E+00	2.474E+00	3.953E+00	4.062E-01	-0.334
		192.34		-3.723E-01	9.006E-01	1.419E+00	1.907E-01	-0.262
		1099.22	*	3.511E-02	1.196E-01	2.002E-01	1.837E-02	0.175
		1291.56		-7.063E-02	1.540E-01	2.322E-01	2.238E-02	-0.304
CO-60		1173.22		-4.007E-02	6.114E-02	9.232E-02	7.541E-03	-0.434
		1332.49	*	-6.768E-03	4.722E-02	7.772E-02	6.624E-03	-0.087
ZN-65		1115.52	*	2.929E-02	1.221E-01	1.796E-01	1.512E-02	0.163
GE-68		1077.35	*	1.889E+00	1.659E+00	2.986E+00	2.548E-01	0.633
AS-73		53.44	*	1.121E-01	2.065E-01	3.593E-01	3.595E-02	0.312
AS-74		595.88	*	3.189E-02	1.072E-01	1.773E-01	1.562E-02	0.180

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		634.78		-3.435E-02	3.879E-01	6.171E-01	5.315E-02	-0.056
SE-75		66.05		3.734E-01	2.532E+00	3.877E+00	4.460E-01	0.096
		96.73		-3.473E-01	6.569E-01	9.534E-01	1.399E-01	-0.364
		121.11		8.957E-03	1.204E-01	1.998E-01	2.734E-02	0.045
		136.00		5.611E-03	3.492E-02	5.785E-02	6.256E-03	0.097
		198.60		3.823E-01	1.753E+00	2.835E+00	2.731E-01	0.135
		264.65	*	-1.348E-02	4.752E-02	6.500E-02	5.972E-03	-0.207
		279.53		1.305E-01	1.102E-01	1.792E-01	1.700E-02	0.728
		303.91		1.457E+00	2.158E+00	3.386E+00	4.027E-01	0.430
		400.65		1.166E-01	2.530E-01	4.331E-01	4.768E-02	0.269
BR-77	+	87.88		4.907E+02	1.862E+02	2.606E+02	2.544E+01	1.883
		200.40		1.811E+01	1.519E+02	2.462E+02	2.147E+01	0.074
	+	239.00		2.455E+02	2.821E+01	3.779E+01	3.413E+00	6.497
		249.79		-3.259E+01	6.192E+01	9.480E+01	8.618E+00	-0.344
		281.68		-1.057E+01	9.137E+01	1.356E+02	1.245E+01	-0.078
		297.23		1.440E+02	7.682E+01	1.019E+02	9.351E+00	1.413
		303.76		1.089E+02	1.770E+02	2.770E+02	2.540E+01	0.393
		439.47		2.482E+01	1.536E+02	2.561E+02	2.232E+01	0.097
		484.57		1.335E+02	2.330E+02	3.990E+02	3.545E+01	0.335
		520.65	*	8.161E+00	1.190E+01	2.040E+01	1.823E+00	0.400
		574.64		-2.447E+02	2.455E+02	3.614E+02	3.209E+01	-0.677
		578.91		4.684E+01	1.069E+02	1.588E+02	1.408E+01	0.295
		585.48		4.786E+02	2.320E+02	3.893E+02	3.444E+01	1.229
		755.35		1.971E+01	2.026E+02	3.421E+02	2.982E+01	0.058
		817.79		-1.917E+01	1.446E+02	2.377E+02	2.089E+01	-0.081
SR-82		698.33		-5.545E+00	3.897E+01	6.493E+01	5.560E+00	-0.085
		776.49	*	-3.956E-01	4.388E-01	6.693E-01	5.857E-02	-0.591
		1395.20		-1.624E+01	1.229E+01	1.593E+01	1.369E+00	-1.019
RB-83		520.41	*	5.872E-02	8.149E-02	1.399E-01	1.251E-02	0.420
		529.64		-6.998E-02	1.166E-01	1.794E-01	1.603E-02	-0.390
		552.65		-5.735E-02	2.194E-01	3.474E-01	3.100E-02	-0.165
RB-84		881.50	*	7.854E-03	9.118E-02	1.522E-01	1.334E-02	0.052
KR-85		513.99	*	4.345E+00	8.409E+00	1.268E+01	1.133E+00	0.343
SR-85		513.99	*	2.225E-02	4.306E-02	6.495E-02	5.803E-03	0.343
RB-86		1076.63	*	1.120E+00	1.040E+00	1.864E+00	1.591E-01	0.601
Y-88		898.02		-3.533E-02	4.996E-02	7.643E-02	6.713E-03	-0.462
		1836.01	*	-6.587E-03	3.666E-02	5.703E-02	4.756E-03	-0.116
ZR-88		392.90	*	-3.686E-02	3.110E-02	4.687E-02	3.949E-03	-0.786
Y-91		1204.90	*	-9.199E+00	2.537E+01	3.950E+01	3.260E+00	-0.233
NB-94		702.63	*	-2.168E-02	3.923E-02	6.307E-02	5.410E-03	-0.344
		871.10		-2.324E-02	3.755E-02	5.784E-02	5.076E-03	-0.402
NB-95		765.79	*	4.169E-02	4.893E-02	8.728E-02	7.624E-03	0.478
NB-95M		235.69	*	-5.901E-02	1.360E-01	1.863E-01	1.902E-02	-0.317
ZR-95		724.18		1.273E-01	1.276E-01	2.060E-01	1.933E-02	0.618
		756.15	*	-2.749E-02	9.008E-02	1.471E-01	1.410E-02	-0.187
NB-97		657.90	*	-1.757E-02	9.008E-02	Half-Life too short		
		1024.50		2.940E+00	9.008E-02	Half-Life too short		
ZR-97		254.15		-6.923E+00	9.008E-02	Half-Life too short		
		355.39		-9.890E-01	9.008E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		507.63	*	3.913E+00	9.008E-02	Half-Life too short		
		602.52		-4.503E+00	9.008E-02	Half-Life too short		
		1021.30		8.473E+00	9.008E-02	Half-Life too short		
		1147.95		-4.299E+00	9.008E-02	Half-Life too short		
		1362.66		5.659E+00	9.008E-02	Half-Life too short		
		1750.46		-8.578E-01	9.008E-02	Half-Life too short		
MO-99		140.51		9.381E+00	2.342E+01	3.891E+01	1.102E+01	0.241
		181.06		-2.554E+00	1.826E+01	2.613E+01	4.766E+00	-0.098
		366.43		-8.968E+00	7.816E+01	1.293E+02	1.132E+01	-0.069
		739.58	*	9.768E-01	1.396E+01	2.357E+01	3.587E+00	0.041
		778.00		-5.359E+00	3.769E+01	6.218E+01	5.444E+00	-0.086
TC-99M		140.51	*	1.028E+10	3.769E+01	Half-Life too short		
RH-101		127.23		-2.525E-02	3.050E-02	4.832E-02	5.496E-03	-0.522
		198.01	*	-1.109E-02	3.242E-02	5.090E-02	4.425E-03	-0.218
		325.23		9.686E-02	2.291E-01	3.520E-01	3.199E-02	0.275
RH-102		418.52		-2.029E-01	2.839E-01	4.421E-01	3.802E-02	-0.459
		475.06	*	-2.786E-03	3.027E-02	4.926E-02	4.363E-03	-0.057
		631.29		-4.043E-02	6.553E-02	9.888E-02	8.537E-03	-0.409
		697.49		2.137E-02	8.776E-02	1.507E-01	1.290E-02	0.142
		766.84		8.454E-02	1.284E-01	2.256E-01	1.971E-02	0.375
		1046.59		-1.302E-01	1.469E-01	2.162E-01	1.863E-02	-0.602
		1112.84		-1.459E-01	3.221E-01	4.196E-01	3.533E-02	-0.348
RU-103		497.08	*	4.887E-03	4.161E-02	6.871E-02	9.854E-03	0.071
	+	610.33		1.139E+01	2.621E+00	3.084E+00	5.166E-01	3.694
RH-106	+	511.85		8.096E-01	3.965E-01	4.702E-01	4.200E-02	1.722
		621.84	*	3.099E-01	4.056E-01	6.903E-01	9.251E-02	0.449
		1050.47		9.146E-01	2.898E+00	4.886E+00	4.205E-01	0.187
RU-106	+	511.85		8.096E-01	3.965E-01	4.702E-01	4.200E-02	1.722
		621.84	*	3.099E-01	4.044E-01	6.903E-01	5.997E-02	0.449
		1050.47		9.146E-01	2.898E+00	4.886E+00	4.205E-01	0.187
AG-108M		433.93	*	9.555E-03	3.645E-02	6.125E-02	5.529E-03	0.156
		614.37		1.553E-02	4.575E-02	6.859E-02	6.216E-03	0.226
		722.95		-1.341E-02	5.380E-02	7.635E-02	6.853E-03	-0.176
AG-110M		657.75	*	-1.682E-02	4.649E-02	7.208E-02	6.282E-03	-0.233
		677.61		-4.519E-02	3.664E-01	5.781E-01	5.050E-02	-0.078
		706.67		-1.214E-01	2.482E-01	4.011E-01	3.542E-02	-0.303
		763.93		-2.225E-01	2.022E-01	3.057E-01	2.742E-02	-0.728
		884.67		9.833E-03	6.188E-02	1.040E-01	9.394E-03	0.095
		937.48		1.150E-02	1.355E-01	2.252E-01	2.040E-02	0.051
		1384.27		-2.697E-02	1.640E-01	2.668E-01	2.355E-02	-0.101
IN-111		171.28		-4.017E-01	9.528E-01	1.515E+00	1.272E-01	-0.265
		245.39	*	9.597E-01	1.093E+00	1.655E+00	1.501E-01	0.580
IN-113M		391.69	*	-2.507E-02	4.543E-02	7.244E-02	6.294E-03	-0.346
SN-113		391.69	*	-2.507E-02	4.543E-02	7.244E-02	6.294E-03	-0.346
IN-114M		190.27	*	-1.367E-01	1.912E-01	2.603E-01	2.242E-02	-0.525
CD-115		260.90		-2.435E+01	1.209E+02	1.889E+02	1.726E+01	-0.129
		492.35		-7.173E+00	3.608E+01	5.798E+01	5.162E+00	-0.124
		527.90	*	-4.619E+00	1.133E+01	1.775E+01	1.587E+00	-0.260
SN-117M		156.02		-1.245E+00	2.174E+00	3.449E+00	3.175E-01	-0.361

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	-1.704E-02	5.325E-02	8.553E-02	7.688E-03	-0.199
SB-122		563.90	*	1.854E-01	2.264E+00	3.693E+00	3.289E-01	0.050
		692.80		3.593E+01	4.771E+01	8.510E+01	7.271E+00	0.422
I-123		159.00	*	4.101E+00	4.771E+01	Half-Life too short		
		528.96		-3.282E+02	4.771E+01	Half-Life too short		
TE-123M		159.00	*	2.335E-02	2.726E-02	4.613E-02	4.152E-03	0.506
I-124		602.71	*	-5.210E-01	8.191E-01	1.131E+00	9.936E-02	-0.460
		722.78		-2.032E+00	5.532E+00	7.729E+00	6.677E-01	-0.263
		1325.50		-1.151E+01	4.271E+01	6.932E+01	5.900E+00	-0.166
		1376.25		2.423E+01	2.967E+01	5.517E+01	4.731E+00	0.439
		1509.49		6.577E+00	1.725E+01	3.027E+01	2.618E+00	0.217
		1691.02		-1.803E-02	3.582E+00	5.874E+00	5.025E-01	-0.003
SB-124		602.71		-3.081E-02	4.844E-02	6.691E-02	5.877E-03	-0.460
		645.85		-1.011E-01	5.832E-01	9.190E-01	8.328E-02	-0.110
		709.31		-1.331E+00	3.407E+00	5.557E+00	4.778E-01	-0.240
		713.82		-1.507E+00	2.033E+00	3.205E+00	3.856E-01	-0.470
		722.78		-1.742E-01	4.742E-01	6.626E-01	5.847E-02	-0.263
	+	968.20		2.032E+01	6.401E+00	8.460E+00	7.391E-01	2.401
		1045.16		-7.780E-01	3.120E+00	4.962E+00	4.277E-01	-0.157
		1325.50		-1.054E+00	3.911E+00	6.347E+00	5.402E-01	-0.166
		1368.21		-1.444E+00	1.913E+00	2.807E+00	3.773E-01	-0.515
		1436.60		-2.865E+00	4.105E+00	6.021E+00	5.192E-01	-0.476
		1691.02	*	-3.645E-04	7.243E-02	1.188E-01	1.057E-02	-0.003
SB-125		427.89	*	2.970E-02	1.015E-01	1.711E-01	1.509E-02	0.174
	+	463.38		5.339E-01	3.847E-01	5.728E-01	5.430E-02	0.932
		600.56		-2.925E-02	2.047E-01	3.258E-01	3.067E-02	-0.090
		635.90		9.555E-03	2.945E-01	4.743E-01	4.413E-02	0.020
TE-125M		109.28	*	1.114E+00	7.671E+00	1.283E+01	1.576E+00	0.087
I-126		388.63		3.093E-01	2.161E-01	3.893E-01	3.294E-02	0.795
		666.33	*	-5.688E-02	2.041E-01	3.173E-01	2.679E-02	-0.179
		753.82		7.105E-01	1.789E+00	3.094E+00	2.695E-01	0.230
SB-126		223.80		9.550E-01	3.710E+00	6.027E+00	5.380E-01	0.158
	+	278.60		4.398E+00	3.581E+00	4.259E+00	3.909E-01	1.033
	+	296.50		1.331E+01	2.842E+00	3.671E+00	3.370E-01	3.626
		414.70		-5.512E-02	7.921E-02	1.243E-01	1.066E-02	-0.443
		415.30		2.060E+00	6.310E+00	1.069E+01	9.169E-01	0.193
		555.20		-2.236E+00	4.447E+00	6.875E+00	6.133E-01	-0.325
		573.80		-1.035E+00	1.244E+00	1.863E+00	1.655E-01	-0.556
		593.00		-4.470E-01	1.041E+00	1.611E+00	1.421E-01	-0.277
		656.30		1.344E+00	4.050E+00	6.679E+00	5.654E-01	0.201
		666.33		-2.376E-02	8.529E-02	1.326E-01	1.119E-02	-0.179
		675.00		-1.816E-01	2.393E+00	3.795E+00	3.218E-01	-0.048
		695.00		-2.892E-02	9.073E-02	1.490E-01	1.275E-02	-0.194
		697.00		1.670E-01	3.016E-01	5.301E-01	4.537E-02	0.315
		720.50	*	-1.382E-01	1.845E-01	2.586E-01	2.232E-02	-0.534
		856.80		6.183E-01	5.513E-01	9.212E-01	8.093E-02	0.671
		989.30		1.742E+00	1.586E+00	2.870E+00	2.501E-01	0.607
		1034.80		7.170E+00	1.101E+01	1.918E+01	1.658E+00	0.374
		1213.00		2.941E+00	6.569E+00	1.101E+01	9.110E-01	0.267

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127		61.10		1.922E+01	2.388E+01	3.773E+01	4.619E+00	0.509
		252.40		1.888E+00	3.954E+00	6.359E+00	2.679E+00	0.297
		290.80		-1.291E+00	2.138E+01	3.179E+01	3.678E+00	-0.041
		411.60		4.770E+00	1.275E+01	2.162E+01	3.386E+00	0.221
		444.90		5.263E-01	1.073E+01	1.774E+01	2.233E+00	0.030
		473.00		-3.434E-01	1.698E+00	2.737E+00	3.557E-01	-0.125
		543.00		-9.239E-01	1.779E+01	2.877E+01	4.188E+00	-0.032
		603.60		-4.204E+00	1.453E+01	1.969E+01	2.479E+00	-0.214
		685.20	*	8.922E-02	1.505E+00	2.417E+00	2.724E-01	0.037
		698.50		-3.927E+00	1.717E+01	2.839E+01	4.475E+00	-0.138
		722.20		-2.380E+01	3.904E+01	5.279E+01	5.880E+00	-0.451
		783.80		4.805E+00	4.325E+00	7.806E+00	9.746E-01	0.615
XE-127		57.60		-2.861E-01	1.961E+00	3.327E+00	3.342E-01	-0.086
		145.22		7.856E-01	6.399E-01	1.099E+00	1.108E-01	0.715
		172.10		-6.661E-02	1.184E-01	1.868E-01	1.571E-02	-0.357
		202.84	*	-1.051E-02	4.573E-02	7.268E-02	6.354E-03	-0.145
		374.96		-1.157E-01	1.958E-01	3.121E-01	2.699E-02	-0.371
I-131		80.18		1.425E+00	4.006E+00	4.951E+00	4.846E-01	0.288
		284.30		3.604E-01	1.404E+00	2.413E+00	2.318E-01	0.149
		364.48	*	-4.015E-02	1.108E-01	1.800E-01	1.662E-02	-0.223
		636.97		-2.052E+00	1.748E+00	2.442E+00	2.218E-01	-0.840
		722.89		-3.036E+00	9.020E+00	1.266E+01	1.100E+00	-0.240
TE-132		49.72		6.428E-01	3.415E+00	5.893E+00	7.057E-01	0.109
		111.76		-2.917E+00	2.497E+01	4.124E+01	5.295E+00	-0.071
		116.30		-1.991E+00	2.371E+01	3.914E+01	5.123E+00	-0.051
		228.16	*	-3.606E-01	6.585E-01	1.014E+00	1.610E-01	-0.356
BA-133		53.15		1.983E-01	8.740E-01	1.506E+00	1.507E-01	0.132
		79.62		5.135E-01	9.663E-01	1.375E+00	2.185E-01	0.373
		81.00		-1.047E-01	9.307E-02	1.011E-01	1.670E-02	-1.035
	+	276.40		6.615E-01	5.441E-01	6.470E-01	9.567E-02	1.022
		302.84		-3.812E-02	1.560E-01	2.277E-01	3.108E-02	-0.167
		356.01	*	4.346E-05	4.520E-02	6.654E-02	8.890E-03	0.001
		383.85		-2.052E-01	3.133E-01	4.958E-01	6.219E-02	-0.414
I-133	+	510.53		1.507E+00	3.133E-01	Half-Life too short		
		529.87	*	-3.336E-03	3.133E-01	Half-Life too short		
		706.58		-2.263E-01	3.133E-01	Half-Life too short		
		856.28		4.461E-01	3.133E-01	Half-Life too short		
		875.33		-1.193E-01	3.133E-01	Half-Life too short		
		1236.41		6.696E-01	3.133E-01	Half-Life too short		
		1298.22		5.159E-02	3.133E-01	Half-Life too short		
CS-134		475.35		-4.425E-01	1.998E+00	3.216E+00	2.849E-01	-0.138
		563.23		2.397E-01	4.113E-01	6.980E-01	6.272E-02	0.343
		569.32		-2.513E-02	2.180E-01	3.491E-01	3.144E-02	-0.072
		604.70		-1.743E-02	4.351E-02	5.811E-02	5.110E-03	-0.300
	+	795.84	*	1.978E-01	1.017E-01	1.203E-01	1.063E-02	1.643
		801.93		-6.147E-01	6.002E-01	7.493E-01	6.614E-02	-0.820
		1038.57		-6.272E+00	5.158E+00	7.291E+00	6.295E-01	-0.860
		1167.94		2.152E+00	3.375E+00	5.785E+00	4.740E-01	0.372
		1365.15		1.604E+00	1.426E+00	2.717E+00	2.434E-01	0.591

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135		268.24	*	2.474E-01	1.858E-01	2.859E-01	2.983E-02	0.866
I-135		288.45		-1.013E+10	1.858E-01	Half-Life too short		
		417.63		-3.917E+09	1.858E-01	Half-Life too short		
		546.56		-5.601E+09	1.858E-01	Half-Life too short		
		836.80		8.021E+09	1.858E-01	Half-Life too short		
		1038.76		-2.147E+10	1.858E-01	Half-Life too short		
		1124.00		-4.405E+09	1.858E-01	Half-Life too short		
		1131.51		-3.522E+09	1.858E-01	Half-Life too short		
		1260.41	*	6.082E+09	1.858E-01	Half-Life too short		
		1457.56		9.524E+11	1.858E-01	Half-Life too short		
		1678.03		1.806E+09	1.858E-01	Half-Life too short		
		1706.46		1.500E+10	1.858E-01	Half-Life too short		
		1791.20		7.642E+09	1.858E-01	Half-Life too short		
CS-136		66.91		-5.316E-03	4.243E-01	6.452E-01	1.043E-01	-0.008
	+	86.29		2.992E+00	1.171E+00	1.547E+00	2.110E-01	1.934
		153.22		2.136E-01	6.333E-01	1.050E+00	1.090E-01	0.203
		163.89		-3.208E-01	1.027E+00	1.647E+00	1.575E-01	-0.195
		176.55		-3.328E-01	3.694E-01	5.705E-01	5.115E-02	-0.583
		273.65		-3.168E-01	6.451E-01	6.577E-01	6.384E-02	-0.482
		340.57		2.568E-01	1.321E-01	2.233E-01	2.062E-02	1.150
		818.51		1.201E-02	8.693E-02	1.467E-01	1.290E-02	0.082
		1048.07	*	-5.697E-02	1.350E-01	2.104E-01	1.889E-02	-0.271
		1235.34		6.651E-01	7.863E-01	1.353E+00	1.575E-01	0.492
BA-137M		661.65	*	3.058E-03	4.376E-02	7.046E-02	5.936E-03	0.043
CS-137		661.65	*	3.232E-03	4.626E-02	7.449E-02	6.287E-03	0.043
CE-139		165.85	*	-1.485E-02	2.845E-02	4.506E-02	3.758E-03	-0.329
BA-140		162.64		6.608E-04	7.193E-01	1.172E+00	1.070E-01	0.001
		304.84		1.089E+00	1.296E+00	2.099E+00	5.919E-01	0.519
		423.70		7.078E-02	2.019E+00	3.345E+00	1.085E+00	0.021
		537.32	*	-4.451E-02	2.921E-01	4.680E-01	1.555E-01	-0.095
LA-140	+	328.77		5.488E-01	5.275E-01	5.696E-01	5.429E-02	0.963
		432.53		1.225E+00	2.312E+00	3.951E+00	3.593E-01	0.310
		487.03		2.247E-02	1.445E-01	2.396E-01	2.254E-02	0.094
		751.79		8.327E-01	2.041E+00	3.535E+00	3.401E-01	0.236
		815.85		5.874E-02	3.659E-01	6.191E-01	6.045E-02	0.095
		867.82		5.429E-01	1.556E+00	2.671E+00	2.464E-01	0.203
		919.63		1.556E+00	3.230E+00	5.589E+00	6.010E-01	0.278
		925.24		-5.460E-01	1.327E+00	2.091E+00	1.942E-01	-0.261
		1596.49	*	-5.962E-02	9.257E-02	1.337E-01	1.154E-02	-0.446
CE-141		145.44	*	5.089E-02	5.877E-02	9.969E-02	1.017E-02	0.510
CE-143		57.37		-6.467E-05	5.877E-02	Half-Life too short		
		231.56		1.211E-03	5.877E-02	Half-Life too short		
		293.26	*	4.996E-04	5.877E-02	Half-Life too short		
	+	350.59		2.501E-02	5.877E-02	Half-Life too short		
		490.36		-5.554E-05	5.877E-02	Half-Life too short		
		664.57		-2.235E-03	5.877E-02	Half-Life too short		
		721.93		-1.034E-03	5.877E-02	Half-Life too short		
CE-144		80.11		6.342E-01	1.859E+00	2.295E+00	2.236E-01	0.276
		133.54	*	-1.010E-01	1.841E-01	2.940E-01	4.987E-02	-0.344

---- Non-Identified Nuclides ----

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PM-144		476.78		-3.617E-02	7.521E-02	1.185E-01	1.143E-02	-0.305
		618.01		-1.366E-02	3.926E-02	6.134E-02	5.487E-03	-0.223
		696.49	*	9.209E-03	3.998E-02	6.859E-02	5.871E-03	0.134
		778.57		-3.225E-01	2.616E+00	4.323E+00	3.786E-01	-0.075
PR-144		696.49	*	6.240E-01	2.709E+00	4.647E+00	3.977E-01	0.134
		1489.15		8.520E+00	1.194E+01	2.229E+01	1.927E+00	0.382
PM-146		453.90	*	2.804E-03	4.643E-02	7.675E-02	8.330E-03	0.037
		633.02		4.489E-01	1.531E+00	2.516E+00	9.402E-01	0.178
		735.90		-6.667E-03	1.776E-01	2.972E-01	8.505E-02	-0.022
		747.13		-3.702E-02	1.038E-01	1.683E-01	2.371E-02	-0.220
ND-147	+	91.11		4.360E-01	1.878E-01	3.885E-01	4.092E-02	1.122
		319.41		1.060E+00	2.980E+00	5.127E+00	4.676E-01	0.207
		439.89		1.341E+00	6.442E+00	1.078E+01	9.396E-01	0.124
		531.02	*	1.888E-01	6.251E-01	1.042E+00	1.577E-01	0.181
PM-149		285.90	*	2.917E+01	8.156E+01	1.408E+02	2.233E+01	0.207
EU-152		121.78		-3.322E-02	6.535E-02	1.053E-01	1.336E-02	-0.315
		244.69		7.379E-02	3.558E-01	5.118E-01	4.639E-02	0.144
		344.27	*	-7.849E-02	9.890E-02	1.430E-01	1.352E-02	-0.549
		443.98		-8.472E-02	1.077E+00	1.765E+00	1.542E-01	-0.048
		778.89		3.797E-02	3.015E-01	5.099E-01	4.464E-02	0.074
		867.32		9.073E-02	9.686E-01	1.580E+00	1.387E-01	0.057
		964.01		1.937E-01	4.092E-01	6.173E-01	5.395E-02	0.314
		1085.78		7.087E-02	4.809E-01	7.958E-01	6.772E-02	0.089
		1112.02		-7.658E-02	4.314E-01	6.194E-01	5.217E-02	-0.124
		1407.95		2.013E-01	2.318E-01	4.261E-01	3.666E-02	0.472
GD-153		69.67		-3.520E-01	9.903E-01	1.486E+00	1.459E-01	-0.237
	+	83.37		2.215E+01	1.356E+01	1.747E+01	1.702E+00	1.268
		97.43	*	-5.538E-03	6.777E-02	1.011E-01	1.034E-02	-0.055
		103.18		-1.112E-01	8.814E-02	1.378E-01	1.451E-02	-0.807
EU-154		123.07		2.400E-03	4.525E-02	7.496E-02	1.035E-02	0.032
		247.94		-8.842E-02	3.567E-01	5.578E-01	6.596E-02	-0.159
		591.81		-2.364E-01	7.033E-01	1.099E+00	1.299E-01	-0.215
		723.30		-1.854E-02	2.279E-01	3.304E-01	3.154E-02	-0.056
		756.87		-1.837E-01	9.915E-01	1.636E+00	1.971E-01	-0.112
		873.19		-1.651E-01	3.404E-01	5.340E-01	6.596E-02	-0.309
		996.32		2.638E-01	4.520E-01	7.809E-01	1.391E-01	0.338
		1004.76		-1.710E-01	2.759E-01	4.224E-01	4.940E-02	-0.405
		1274.45	*	-3.808E-03	1.713E-01	2.745E-01	3.062E-02	-0.014
EU-155		48.70		-1.152E+00	4.523E-01	6.801E-01	6.832E-02	-1.694
		60.01		2.236E+00	2.039E+00	3.259E+00	3.278E-01	0.686
	+	86.54		2.778E-01	1.055E-01	1.465E-01	1.440E-02	1.896
		105.31	*	1.319E-01	9.124E-02	1.589E-01	1.707E-02	0.830
TB-160	+	86.79		7.413E-01	2.813E-01	3.906E-01	3.810E-02	1.898
		197.04		-2.539E-01	5.535E-01	8.636E-01	7.499E-02	-0.294
		215.65		3.178E-01	7.189E-01	1.181E+00	1.046E-01	0.269
		298.57		1.724E-01	1.625E-01	2.011E-01	1.846E-02	0.857
		879.36	*	1.390E-01	1.783E-01	3.154E-01	2.765E-02	0.441
		962.29		6.468E-01	7.256E-01	1.149E+00	1.004E-01	0.563
	+	966.15		1.566E+00	4.933E-01	6.326E-01	5.528E-02	2.475

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1177.93		2.886E-02	5.117E-01	8.320E-01	6.807E-02	0.035
		1271.85		-1.512E-02	9.765E-01	1.566E+00	1.317E-01	-0.010
HO-166M		80.57		1.685E-01	2.286E-01	2.899E-01	2.824E-02	0.581
	+	184.41		1.531E-01	6.432E-02	6.438E-02	5.504E-03	2.379
		280.46		3.103E-02	8.719E-02	1.342E-01	1.233E-02	0.231
		410.95		2.769E-01	2.643E-01	4.659E-01	3.984E-02	0.594
		711.68	*	8.940E-02	7.178E-02	1.318E-01	1.134E-02	0.678
		752.31		1.836E-01	3.260E-01	5.714E-01	4.977E-02	0.321
		810.29		-9.026E-02	7.182E-02	1.044E-01	9.173E-03	-0.864
TM-171		51.35		-3.933E+00	6.509E+00	1.088E+01	1.089E+00	-0.362
		52.39		5.568E-01	3.657E+00	6.290E+00	6.293E-01	0.089
		59.40		3.083E+00	1.003E+01	1.652E+01	1.665E+00	0.187
		66.72	*	4.068E+00	1.514E+01	2.328E+01	2.298E+00	0.175
LU-176	+	88.36		5.471E-01	2.076E-01	2.804E-01	2.741E-02	1.951
		201.83		-1.423E-02	2.782E-02	4.350E-02	3.798E-03	-0.327
		306.84	*	-4.474E-03	2.379E-02	3.968E-02	3.635E-03	-0.113
		401.10		2.814E+00	6.597E+00	1.127E+01	9.564E-01	0.250
LU-177		112.95		9.808E-01	1.384E+00	2.358E+00	2.621E-01	0.416
	+	208.36	*	1.498E+00	1.441E+00	1.928E+00	1.696E-01	0.777
LU-177M		52.97		8.571E-02	3.904E-01	6.728E-01	6.731E-02	0.127
		54.07		1.471E-01	2.228E-01	3.887E-01	3.889E-02	0.378
		61.30		4.998E-01	6.385E-01	1.009E+00	1.010E-01	0.495
		121.62		-1.504E-01	3.354E-01	5.426E-01	6.338E-02	-0.277
		147.16		-4.466E-01	6.289E-01	9.944E-01	9.874E-02	-0.449
		171.86		-3.312E-01	4.742E-01	7.421E-01	6.237E-02	-0.446
		218.09		4.088E-01	8.372E-01	1.377E+00	1.223E-01	0.297
	+	268.79		2.041E+00	1.347E+00	1.522E+00	1.394E-01	1.341
		319.02		1.011E-01	2.372E-01	4.098E-01	3.737E-02	0.247
		367.43		7.226E-01	8.856E-01	1.556E+00	1.360E-01	0.464
		413.65	*	-1.103E-01	1.850E-01	2.927E-01	2.508E-02	-0.377
HF-181		56.28		-2.111E-01	2.790E-01	4.619E-01	4.631E-02	-0.457
		57.53		-2.668E-02	1.644E-01	2.787E-01	2.799E-02	-0.096
		65.20		-1.650E-01	4.848E-01	7.273E-01	7.203E-02	-0.227
		133.02		-5.206E-02	5.838E-02	9.158E-02	1.005E-02	-0.569
		136.25		3.663E-02	4.056E-01	6.699E-01	7.200E-02	0.055
		345.85		-1.561E-01	2.069E-01	2.822E-01	2.526E-02	-0.553
		482.03	*	-1.195E-02	4.622E-02	7.411E-02	6.580E-03	-0.161
W-181		56.28		-8.241E-02	1.094E-01	1.811E-01	1.815E-02	-0.455
		57.53		-1.049E-02	6.447E-02	1.093E-01	1.098E-02	-0.096
		65.20	*	-6.419E-02	1.886E-01	2.830E-01	2.803E-02	-0.227
TA-182		67.75		4.133E-02	6.199E-02	9.667E-02	9.521E-03	0.428
		100.10		6.546E-02	1.410E-01	2.394E-01	2.482E-02	0.273
		152.43		4.908E-02	3.326E-01	5.474E-01	5.203E-02	0.090
		222.10		-1.779E-01	3.267E-01	5.051E-01	4.502E-02	-0.352
		1001.68		7.164E-01	2.622E+00	4.410E+00	3.836E-01	0.162
		1121.28		2.818E-01	2.553E-01	4.016E-01	3.369E-02	0.702
		1189.05		1.333E-01	3.954E-01	6.611E-01	5.429E-02	0.202
		1221.42	*	-2.217E-01	2.552E-01	3.739E-01	3.101E-02	-0.593
		1230.97		6.155E-02	6.353E-01	1.033E+00	8.592E-02	0.060

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RE-183		57.98		-1.337E-02	6.646E-02	1.125E-01	1.131E-02	-0.119
		59.32		9.983E-03	4.095E-02	6.733E-02	6.784E-03	0.148
		67.20		1.806E-02	1.108E-01	1.697E-01	1.673E-02	0.106
		162.32	*	1.170E-03	1.054E-01	1.719E-01	1.488E-02	0.007
	+	208.81		1.361E+00	1.309E+00	1.750E+00	1.540E-01	0.778
		291.72		-2.048E-01	9.602E-01	1.409E+00	1.294E-01	-0.145
RE-184		57.98		-4.928E-02	2.450E-01	4.149E-01	4.169E-02	-0.119
		59.32		3.678E-02	1.509E-01	2.481E-01	2.500E-02	0.148
		67.20		6.659E-02	4.085E-01	6.255E-01	6.168E-02	0.106
		161.27		-1.005E-01	3.499E-01	5.626E-01	4.923E-02	-0.179
		216.55		2.678E-01	2.585E-01	4.363E-01	3.869E-02	0.614
		252.85	*	8.296E-02	2.134E-01	3.478E-01	3.167E-02	0.239
		318.01		-3.129E-02	4.143E-01	6.941E-01	6.333E-02	-0.045
		792.07		1.819E+00	1.241E+00	2.118E+00	1.858E-01	0.859
		903.28		1.010E+00	1.369E+00	2.157E+00	1.886E-01	0.468
		920.93		1.373E-01	5.211E-01	8.837E-01	7.733E-02	0.155
OS-185		59.72		1.202E-01	1.179E-01	1.881E-01	1.894E-02	0.639
		61.14		5.582E-02	6.927E-02	1.096E-01	1.098E-02	0.509
		69.30		-8.417E-02	1.764E-01	2.633E-01	2.587E-02	-0.320
		592.07		-7.343E-01	2.864E+00	4.510E+00	3.980E-01	-0.163
		646.12	*	4.306E-03	4.899E-02	7.922E-02	6.764E-03	0.054
		717.42		2.233E-01	1.042E+00	1.784E+00	1.538E-01	0.125
		874.81		-2.163E-01	6.863E-01	1.100E+00	9.649E-02	-0.197
		880.27		4.185E-01	1.011E+00	1.736E+00	1.522E-01	0.241
RE-188		155.03	*	8.117E-02	1.648E-01	2.750E-01	2.555E-02	0.295
		477.96		2.114E+00	3.296E+00	5.668E+00	5.026E-01	0.373
		633.10		8.609E-01	3.069E+00	5.065E+00	4.368E-01	0.170
W-188	+	63.58		5.354E+01	3.215E+01	4.397E+01	4.373E+00	1.218
		227.08		-2.597E-01	1.218E+01	1.945E+01	1.741E+00	-0.013
		290.67	*	-3.401E-01	7.552E+00	1.125E+01	1.033E+00	-0.030
IR-192	+	295.96		1.025E+00	2.191E-01	3.050E-01	2.818E-02	3.360
		308.46		-7.693E-02	9.295E-02	1.483E-01	1.365E-02	-0.519
		316.51	*	-4.604E-02	3.280E-02	4.968E-02	4.545E-03	-0.927
		468.07		-7.456E-03	6.942E-02	1.090E-01	1.029E-02	-0.068
		604.41		-2.133E-01	5.895E-01	7.912E-01	1.038E-01	-0.270
		612.46		-1.398E-01	8.678E-01	1.218E+00	1.218E-01	-0.115
AU-195		65.12		-1.905E-02	8.747E-02	1.320E-01	1.307E-02	-0.144
		66.83		-3.091E-03	5.106E-02	7.749E-02	7.647E-03	-0.040
	+	75.70		9.869E-01	1.839E-01	3.093E-01	3.017E-02	3.191
		98.88	*	1.022E-01	1.962E-01	3.019E-01	3.110E-02	0.339
		129.76		4.149E+00	2.782E+00	4.769E+00	5.343E-01	0.870
TL-200		367.94	*	4.346E-05	2.782E+00	Half-Life too short		
		579.30		2.610E-03	2.782E+00	Half-Life too short		
		828.27		3.140E-03	2.782E+00	Half-Life too short		
		1205.75		-8.470E-04	2.782E+00	Half-Life too short		
TL-201		68.90		-1.099E+00	2.563E+00	4.085E+00	4.016E-01	-0.269
		70.82		-1.776E-01	1.610E+00	2.441E+00	2.392E-01	-0.073
		80.30		7.942E+00	3.891E+00	5.323E+00	5.185E-01	1.492
		135.34		-3.142E-01	2.227E+01	3.661E+01	3.959E+00	-0.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		167.43	*	4.252E+00	6.557E+00	1.099E+01	9.175E-01	0.387
TL-202		68.90		-1.007E-01	2.350E-01	3.745E-01	3.682E-02	-0.269
		70.82		-1.624E-02	1.472E-01	2.231E-01	2.187E-02	-0.073
		80.30		7.264E-01	3.559E-01	4.869E-01	4.742E-02	1.492
		439.56	*	1.535E-02	7.656E-02	1.280E-01	1.116E-02	0.120
BI-207		72.80		1.105E-01	1.038E-01	1.800E-01	1.761E-02	0.614
	+	74.97		5.477E-01	1.021E-01	1.509E-01	1.473E-02	3.629
	+	84.90		2.866E-01	1.754E-01	2.401E-01	2.340E-02	1.194
		569.67		8.740E-03	3.427E-02	5.670E-02	5.042E-03	0.154
		1063.62	*	8.888E-02	6.405E-02	1.185E-01	1.016E-02	0.750
		1770.23		-5.499E-01	6.938E-01	9.710E-01	8.202E-02	-0.566
TL-207		81.07		-6.517E-02	1.895E-01	2.224E-01	2.166E-02	-0.293
	+	83.78		1.890E-01	1.157E-01	1.556E-01	1.516E-02	1.214
		94.90		2.520E-01	1.990E-01	3.145E-01	3.174E-02	0.801
		122.32		-1.295E+00	1.558E+00	2.463E+00	2.998E-01	-0.526
		144.24		2.680E-01	6.242E-01	1.042E+00	1.151E-01	0.257
		154.21		6.389E-02	3.827E-01	6.301E-01	6.399E-02	0.101
	+	269.46		4.781E-01	3.156E-01	3.646E-01	3.402E-02	1.311
		323.87	*	4.590E-01	6.858E-01	1.065E+00	1.911E-01	0.431
	+	338.28		7.446E+00	2.285E+00	2.661E+00	3.349E-01	2.798
		445.03		1.495E-01	2.553E+00	4.223E+00	5.142E-01	0.035
PO-209		260.50		2.016E+00	9.122E+00	1.467E+01	1.341E+00	0.137
		262.80		-1.313E+01	2.599E+01	3.904E+01	3.570E+00	-0.336
		896.60	*	1.398E+00	8.584E+00	1.444E+01	1.262E+00	0.097
BI-210		46.50	*	6.231E-01	5.723E-01	9.542E-01	1.035E-01	0.653
PB-210		46.50	*	6.231E-01	5.723E-01	9.542E-01	1.035E-01	0.653
PO-210		46.50	*	6.231E-01	5.718E-01	9.542E-01	9.640E-02	0.653
PB-211		404.84	*	2.408E-01	9.683E-01	1.614E+00	1.011E+00	0.149
		427.08		6.691E-01	2.322E+00	3.850E+00	2.393E+00	0.174
		831.96		-4.199E-02	1.481E+00	2.458E+00	1.541E+00	-0.017
BI-212	+	727.18	*	9.353E-01	4.728E-01	7.250E-01	7.274E-02	1.290
		785.46		1.428E+00	2.113E+00	3.723E+00	3.263E-01	0.384
		1620.62		-5.201E-01	1.326E+00	2.009E+00	1.731E-01	-0.259
PO-215		81.07		-6.517E-02	1.895E-01	2.224E-01	2.166E-02	-0.293
	+	83.78		1.890E-01	1.157E-01	1.556E-01	1.516E-02	1.214
		94.90		2.520E-01	1.990E-01	3.145E-01	3.174E-02	0.801
		122.32		-1.295E+00	1.558E+00	2.463E+00	2.998E-01	-0.526
		144.24		2.680E-01	6.242E-01	1.042E+00	1.151E-01	0.257
		154.21		6.389E-02	3.827E-01	6.301E-01	6.399E-02	0.101
	+	269.46		4.781E-01	3.156E-01	3.646E-01	3.402E-02	1.311
		323.87	*	4.590E-01	6.858E-01	1.065E+00	1.911E-01	0.431
	+	338.28		7.446E+00	2.285E+00	2.661E+00	3.349E-01	2.798
		445.03		1.495E-01	2.553E+00	4.223E+00	5.142E-01	0.035
RN-219	+	271.23		6.134E-01	4.063E-01	4.427E-01	4.769E-02	1.386
		401.81	*	-2.212E-02	4.137E-01	6.836E-01	1.022E-01	-0.032
RN-220		549.76	*	1.659E+01	2.909E+01	4.947E+01	4.417E+00	0.335
RA-223		81.07		-6.517E-02	1.895E-01	2.224E-01	2.166E-02	-0.293
	+	83.78		1.890E-01	1.157E-01	1.556E-01	1.516E-02	1.214
		94.90		2.520E-01	1.990E-01	3.145E-01	3.174E-02	0.801

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-1.295E+00	1.558E+00	2.463E+00	2.998E-01	-0.526
		144.24		2.680E-01	6.242E-01	1.042E+00	1.151E-01	0.257
		154.21		6.389E-02	3.827E-01	6.301E-01	6.399E-02	0.101
	+	269.46		4.781E-01	3.156E-01	3.646E-01	3.402E-02	1.311
		323.87	*	4.590E-01	6.858E-01	1.065E+00	1.911E-01	0.431
	+	338.28		7.446E+00	2.285E+00	2.661E+00	3.349E-01	2.798
		445.03		1.495E-01	2.553E+00	4.223E+00	5.142E-01	0.035
AC-227		79.80		6.109E-01	1.231E+00	1.744E+00	3.834E-01	0.350
		236.00		1.141E-01	2.612E-01	3.813E-01	4.775E-02	0.299
		256.20	*	-1.643E-01	3.769E-01	5.791E-01	9.054E-02	-0.284
		286.10		4.941E-01	1.410E+00	2.433E+00	3.304E-01	0.203
	+	299.80		2.651E+00	1.870E+00	2.652E+00	4.713E-01	1.000
		304.40		1.455E+00	1.971E+00	3.087E+00	5.771E-01	0.471
		334.20		4.379E-01	2.841E+00	3.976E+00	7.794E-01	0.110
TH-227		79.80		6.109E-01	1.231E+00	1.744E+00	3.881E-01	0.350
	+	94.00		8.465E+00	3.233E+00	3.124E+00	6.991E-01	2.710
		236.00		1.141E-01	2.612E-01	3.813E-01	4.341E-02	0.299
		256.20	*	-1.643E-01	3.772E-01	5.791E-01	1.060E-01	-0.284
		286.10		4.941E-01	1.493E+00	2.433E+00	2.443E+00	0.203
	+	299.80		2.651E+00	1.870E+00	2.652E+00	4.713E-01	1.000
		304.40		1.455E+00	1.971E+00	3.087E+00	5.771E-01	0.471
		334.20		4.379E-01	2.841E+00	3.976E+00	7.794E-01	0.110
TH-229	+	85.43		2.829E-01	1.731E-01	2.446E-01	2.385E-02	1.156
	+	88.47		3.149E-01	1.195E-01	1.587E-01	1.552E-02	1.985
		100.00		8.308E-02	1.465E-01	2.497E-01	2.587E-02	0.333
		193.63	*	3.358E-01	4.806E-01	8.028E-01	6.943E-02	0.418
		210.97		8.382E-01	7.908E-01	1.212E+00	1.069E-01	0.692
PA-231		283.67	*	3.648E-03	1.434E+00	2.430E+00	3.770E-01	0.002
	+	301.29		1.061E+00	7.362E-01	1.033E+00	1.305E-01	1.027
TH-231		81.07		-6.517E-02	1.895E-01	2.224E-01	2.166E-02	-0.293
	+	83.78		1.890E-01	1.157E-01	1.556E-01	1.516E-02	1.214
		94.90		2.520E-01	1.990E-01	3.145E-01	3.174E-02	0.801
		122.32		-1.295E+00	1.558E+00	2.463E+00	2.998E-01	-0.526
		144.24		2.680E-01	6.242E-01	1.042E+00	1.151E-01	0.257
		154.21		6.389E-02	3.827E-01	6.301E-01	6.399E-02	0.101
	+	269.46		4.781E-01	3.156E-01	3.646E-01	3.402E-02	1.311
		323.87	*	4.590E-01	6.858E-01	1.065E+00	1.911E-01	0.431
	+	338.28		7.446E+00	2.285E+00	2.661E+00	3.349E-01	2.798
		445.03		1.495E-01	2.553E+00	4.223E+00	5.142E-01	0.035
U-231	+	84.21		7.987E+00	4.888E+00	6.600E+00	6.431E-01	1.210
	+	92.29		8.206E+00	2.669E+00	3.207E+00	3.195E-01	2.559
		95.87	*	1.366E-01	8.739E-01	1.322E+00	1.341E-01	0.103
		108.00		-1.224E+00	1.719E+00	2.764E+00	2.990E-01	-0.443
PA-233	+	75.28		1.598E+01	3.604E+00	4.608E+00	7.379E-01	3.469
	+	86.59		4.516E+00	2.062E+00	2.382E+00	6.481E-01	1.896
	+	300.12		7.392E-01	5.169E-01	7.436E-01	1.130E-01	0.994
		311.98	*	2.036E-02	6.391E-02	1.096E-01	1.028E-02	0.186
		340.50		1.437E+00	7.314E-01	1.124E+00	2.694E-01	1.279
		398.62		-1.227E+00	2.040E+00	3.186E+00	8.469E-01	-0.385

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		5.196E-01	1.645E+00	2.781E+00	5.989E-01	0.187
PA-234	+	63.00		1.555E+00	9.546E-01	1.250E+00	2.036E-01	1.243
		94.67		2.920E-01	1.499E-01	2.374E-01	3.195E-02	1.230
		98.44		3.702E-02	8.240E-02	1.225E-01	6.868E-02	0.302
		99.86		2.238E-01	3.713E-01	6.336E-01	6.559E-02	0.353
		111.00		-1.276E-01	1.571E-01	2.499E-01	3.470E-02	-0.510
		131.20		-3.207E-02	1.001E-01	1.615E-01	1.793E-02	-0.199
		152.70		2.047E-01	3.149E-01	5.266E-01	9.214E-02	0.389
	+	186.00		5.513E+00	2.846E+00	2.606E+00	8.131E-01	2.115
		226.40		2.505E-01	3.752E-01	6.215E-01	8.339E-02	0.403
		227.20		-1.253E-01	4.171E-01	6.545E-01	5.859E-02	-0.191
		248.90		-2.915E-01	7.904E-01	1.221E+00	2.759E-01	-0.239
	+	293.70		6.457E+00	1.685E+00	1.738E+00	3.058E-01	3.714
		369.80		1.831E-02	8.596E-01	1.436E+00	3.132E-01	0.013
		568.70		-1.810E-01	1.074E+00	1.711E+00	1.522E-01	-0.106
		569.50		3.226E-02	3.026E-01	4.944E-01	4.396E-02	0.065
		574.00		-1.651E+00	1.788E+00	2.649E+00	2.352E-01	-0.623
		699.00		1.958E-02	8.105E-01	1.369E+00	2.608E-01	0.014
		706.10		-6.672E-01	1.284E+00	2.014E+00	8.980E-01	-0.331
		733.00		-1.812E-01	4.411E-01	6.905E-01	1.534E-01	-0.262
		742.81		-4.245E-02	1.639E+00	2.744E+00	1.845E+00	-0.015
		796.30		2.225E+00	1.300E+00	2.200E+00	5.963E-01	1.011
		805.60		1.136E+00	1.285E+00	2.222E+00	6.821E-01	0.511
		819.60		2.589E-01	1.451E+00	2.452E+00	9.333E-01	0.106
		826.30		5.136E-01	1.073E+00	1.818E+00	8.139E-01	0.283
		831.60		-2.174E-01	7.819E-01	1.264E+00	3.780E-01	-0.172
		876.40		2.685E-02	1.036E+00	1.720E+00	1.768E+00	0.016
		880.51		1.195E-01	3.659E-01	6.237E-01	5.467E-02	0.192
		883.24		-2.189E-01	4.021E-01	5.854E-01	3.936E-01	-0.374
		899.00		-8.315E-01	1.097E+00	1.572E+00	6.878E-01	-0.529
		925.00		-3.542E-01	1.379E+00	2.212E+00	1.936E-01	-0.160
		926.50		2.163E-02	2.062E-01	3.439E-01	8.708E-02	0.063
		946.00	*	6.378E-02	3.426E-01	5.753E-01	1.083E-01	0.111
		949.00		1.066E-01	5.530E-01	9.279E-01	8.117E-02	0.115
		980.50		9.088E-01	9.476E-01	1.693E+00	1.477E-01	0.537
		1394.10		-1.217E+00	1.488E+00	1.763E+00	1.147E+00	-0.690
PA-234M		766.42		1.355E+01	1.493E+01	2.396E+01	1.216E+01	0.566
		1001.03	*	3.891E+00	5.904E+00	1.026E+01	1.030E+00	0.379
U-235	+	89.95		1.749E+00	9.123E-01	1.494E+00	4.665E-01	1.171
	+	93.35		2.634E+00	1.108E+00	1.060E+00	3.019E-01	2.485
		105.00		1.327E+00	9.719E-01	1.560E+00	4.757E-01	0.850
		143.76	*	-9.489E-02	1.976E-01	3.157E-01	5.788E-02	-0.301
		163.35		5.748E-03	4.533E-01	7.390E-01	1.408E-01	0.008
	+	185.71		2.042E-01	8.576E-02	9.663E-02	8.275E-03	2.113
		205.31		2.677E-01	5.464E-01	8.069E-01	1.545E-01	0.332
NP-236		94.67		2.235E-01	1.120E-01	1.803E-01	1.817E-02	1.240
		98.44		2.796E-02	6.035E-02	9.260E-02	9.516E-03	0.302
		111.00		-9.650E-02	1.185E-01	1.891E-01	2.079E-02	-0.510
		160.31	*	4.946E-02	7.712E-02	1.293E-01	1.143E-02	0.382

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		8.974E-02	1.287E-01	2.113E-01	2.184E-02	0.425
		117.00	*	1.264E-02	1.695E-01	2.818E-01	3.205E-02	0.045
	+	209.75		1.075E+00	1.034E+00	1.415E+00	1.247E-01	0.760
		228.18		-1.199E-01	2.201E-01	3.398E-01	3.045E-02	-0.353
	+	277.60		3.228E-01	2.629E-01	3.265E-01	2.997E-02	0.989
		334.30		2.316E-01	1.609E+00	2.250E+00	2.033E-01	0.103
AM-241		59.54	*	2.461E-02	5.889E-02	9.737E-02	1.034E-02	0.253
CM-243		99.55		9.234E-02	1.325E-01	2.174E-01	2.247E-02	0.425
		103.76	*	-1.666E-03	8.109E-02	1.350E-01	1.427E-02	-0.012
		117.00		1.300E-02	1.744E-01	2.899E-01	3.298E-02	0.045
	+	209.75		1.060E+00	1.019E+00	1.395E+00	1.229E-01	0.760
		228.18		-1.212E-01	2.224E-01	3.434E-01	3.076E-02	-0.353
	+	277.60		3.255E-01	2.650E-01	3.292E-01	3.021E-02	0.989
AM-246		798.80		-6.677E-02	1.817E-01	2.501E-01	2.196E-02	-0.267
		1036.00		3.354E-02	3.811E-01	6.288E-01	5.432E-02	0.053
		1062.04		1.029E-01	2.738E-01	4.648E-01	3.987E-02	0.221
		1078.86	*	1.539E-01	1.944E-01	3.398E-01	2.899E-02	0.453
CM-247	+	278.00		1.339E+00	1.090E+00	1.332E+00	1.223E-01	1.005
		287.40		-8.004E-01	1.149E+00	1.862E+00	1.710E-01	-0.430
		402.60	*	3.655E-03	3.735E-02	6.237E-02	5.298E-03	0.059
CF-249		252.85		3.114E-01	8.012E-01	1.306E+00	1.189E-01	0.239
		333.44		-1.987E-01	2.863E-01	2.756E-01	2.492E-02	-0.721
		387.95	*	4.489E-02	4.329E-02	7.639E-02	6.472E-03	0.588
CF-251		176.60	*	-1.146E-01	1.281E-01	1.980E-01	1.675E-02	-0.578
		227.00		3.461E-03	3.666E-01	5.863E-01	5.247E-02	0.006
		285.00		8.031E-01	1.649E+00	2.866E+00	2.633E-01	0.280

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837003      *
* Acquisition date : 23-FEB-2010 12:06:16 Detector SN#     :               *
* Detector ID        : GAM17               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:10.28      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  8-FEB-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246837003           Analyst initials: MXR1          *
* Batch Number       : 952641               Sample Quantity : 1.4553E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope      :                *
* LCS DPM          :    0.000             LCS Isotope      :                *
* LCSD DPM         :    0.000             LCSD Isotope     :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.300E+01	3.556E+00	4.158E-01	0.000E+00
CD-109	2.346E+00	8.725E-01	1.071E+00	0.000E+00
SN-126	2.307E-01	8.577E-02	1.051E-01	0.000E+00
HG-203	7.366E-02	5.880E-02	5.944E-02	0.000E+00
TL-208	5.372E-01	1.033E-01	6.943E-02	0.000E+00
BI-211	3.340E+00	5.662E-01	3.376E-01	0.000E+00
PB-212	1.580E+00	1.909E-01	9.358E-02	0.000E+00
PO-212	1.580E+00	1.909E-01	9.358E-02	0.000E+00
BI-214	1.057E+00	1.944E-01	1.286E-01	0.000E+00
PB-214	1.162E+00	2.057E-01	1.177E-01	0.000E+00
PO-214	1.162E+00	2.057E-01	1.177E-01	0.000E+00
PO-216	1.580E+00	1.909E-01	9.358E-02	0.000E+00
PO-218	1.162E+00	2.057E-01	1.177E-01	0.000E+00
RA-224	4.166E+00	1.212E+00	1.066E+00	0.000E+00
RA-226	1.057E+00	1.944E-01	1.286E-01	0.000E+00
AC-228	1.481E+00	3.628E-01	2.334E-01	0.000E+00
RA-228	1.481E+00	3.628E-01	2.334E-01	0.000E+00
TH-228	1.604E+00	1.938E-01	9.498E-02	0.000E+00
TH-230	1.057E+00	1.944E-01	1.285E-01	0.000E+00
TH-232	1.481E+00	3.628E-01	2.334E-01	0.000E+00
TH-234	1.334E+00	8.114E-01	1.011E+00	0.000E+00
U-234	1.057E+00	1.944E-01	1.285E-01	0.000E+00
NP-237	6.773E-01	2.867E-01	2.748E-01	0.000E+00
U-238	1.334E+00	8.114E-01	1.011E+00	0.000E+00
AM-243	3.051E-01	5.573E-02	5.979E-02	0.000E+00
ANH-511	1.621E-01	7.781E-02	5.032E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	4.348E-03	3.413E-01	5.897E-01	0.000E+00	NOT IDENT.

NA-22	-2.534E-03	5.997E-02	9.874E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.034E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.120E-02	2.804E-02	5.160E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.640E-02	6.055E-02	0.000E+00	FAIL ABUN
SC-46	-1.596E-02	4.625E-02	7.670E-02	0.000E+00	FAIL ABUN
V-48	-1.134E-01	9.958E-02	1.506E-01	0.000E+00	NOT IDENT.
CR-51	3.387E-02	3.431E-01	6.171E-01	0.000E+00	NOT IDENT.
MN-52	1.375E-01	2.219E-01	4.176E-01	0.000E+00	NOT IDENT.
MN-54	-3.328E-02	4.371E-02	7.021E-02	0.000E+00	NOT IDENT.
CO-56	-5.708E-03	4.450E-02	7.587E-02	0.000E+00	NOT IDENT.
CO-57	-1.684E-02	2.211E-02	3.815E-02	0.000E+00	NOT IDENT.
CO-58	-4.346E-02	4.495E-02	7.036E-02	0.000E+00	NOT IDENT.
FE-59	3.511E-02	1.172E-01	2.026E-01	0.000E+00	NOT IDENT.
CO-60	-6.768E-03	4.628E-02	7.832E-02	0.000E+00	NOT IDENT.
ZN-65	2.929E-02	1.197E-01	1.818E-01	0.000E+00	NOT IDENT.
GE-68	1.889E+00	1.626E+00	3.024E+00	0.000E+00	NOT IDENT.
AS-73	1.121E-01	2.024E-01	3.887E-01	0.000E+00	NOT IDENT.
AS-74	3.189E-02	1.050E-01	1.820E-01	0.000E+00	NOT IDENT.
SE-75	-1.348E-02	4.657E-02	6.796E-02	0.000E+00	NOT IDENT.
BR-77	8.161E+00	1.167E+01	2.101E+01	0.000E+00	FAIL ABUN
SR-82	-3.956E-01	4.300E-01	6.830E-01	0.000E+00	NOT IDENT.
RB-83	5.872E-02	7.986E-02	1.441E-01	0.000E+00	NOT IDENT.
RB-84	7.854E-03	8.936E-02	1.549E-01	0.000E+00	NOT IDENT.
KR-85	4.345E+00	8.240E+00	1.307E+01	0.000E+00	NOT IDENT.
SR-85	2.225E-02	4.220E-02	6.692E-02	0.000E+00	NOT IDENT.
RB-86	1.120E+00	1.019E+00	1.888E+00	0.000E+00	NOT IDENT.
Y-88	-6.587E-03	3.593E-02	5.703E-02	0.000E+00	NOT IDENT.
ZR-88	-3.686E-02	3.048E-02	4.858E-02	0.000E+00	NOT IDENT.
Y-91	-9.199E+00	2.486E+01	3.990E+01	0.000E+00	NOT IDENT.
NB-94	-2.168E-02	3.844E-02	6.451E-02	0.000E+00	NOT IDENT.
NB-95	4.169E-02	4.795E-02	8.910E-02	0.000E+00	NOT IDENT.
NB-95M	-5.901E-02	1.332E-01	1.953E-01	0.000E+00	NOT IDENT.
ZR-95	-2.749E-02	8.827E-02	1.502E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.117E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.909E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	9.768E-01	1.369E+01	2.408E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.517E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.109E-02	3.177E-02	5.356E-02	0.000E+00	NOT IDENT.
RH-102	-2.786E-03	2.966E-02	5.084E-02	0.000E+00	NOT IDENT.
RU-103	4.887E-03	4.078E-02	7.084E-02	0.000E+00	FAIL ABUN
RH-106	3.099E-01	3.975E-01	7.081E-01	0.000E+00	FAIL ABUN
RU-106	3.099E-01	3.963E-01	7.081E-01	0.000E+00	FAIL ABUN
AG-108M	9.555E-03	3.572E-02	6.334E-02	0.000E+00	NOT IDENT.
AG-110M	-1.682E-02	4.556E-02	7.384E-02	0.000E+00	NOT IDENT.
IN-111	9.597E-01	1.072E+00	1.733E+00	0.000E+00	NOT IDENT.
IN-113M	-2.507E-02	4.452E-02	7.508E-02	0.000E+00	NOT IDENT.
SN-113	-2.507E-02	4.452E-02	7.508E-02	0.000E+00	NOT IDENT.
IN-114M	-1.367E-01	1.873E-01	2.741E-01	0.000E+00	NOT IDENT.
CD-115	-4.619E+00	1.110E+01	1.828E+01	0.000E+00	NOT IDENT.
SN-117M	-1.704E-02	5.218E-02	9.044E-02	0.000E+00	NOT IDENT.
SB-122	1.854E-01	2.219E+00	3.797E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.692E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.335E-02	2.672E-02	4.877E-02	0.000E+00	NOT IDENT.
I-124	-5.210E-01	8.027E-01	1.161E+00	0.000E+00	NOT IDENT.
SB-124	-3.645E-04	7.098E-02	1.190E-01	0.000E+00	FAIL ABUN
SB-125	2.970E-02	9.948E-02	1.770E-01	0.000E+00	FAIL ABUN
TE-125M	1.114E+00	7.518E+00	1.367E+01	0.000E+00	NOT IDENT.
I-126	-5.688E-02	2.001E-01	3.250E-01	0.000E+00	NOT IDENT.
SB-126	-1.382E-01	1.808E-01	2.644E-01	0.000E+00	FAIL ABUN
SB-127	8.922E-02	1.475E+00	2.473E+00	0.000E+00	NOT IDENT.
XE-127	-1.051E-02	4.481E-02	7.643E-02	0.000E+00	NOT IDENT.
I-131	-4.015E-02	1.085E-01	1.869E-01	0.000E+00	NOT IDENT.
TE-132	-3.606E-01	6.454E-01	1.064E+00	0.000E+00	NOT IDENT.
BA-133	4.346E-05	4.430E-02	6.912E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.979E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.966E-02	1.227E-01	0.000E+00	FAIL ABUN
CS-135	2.474E-01	1.821E-01	2.988E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.159E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.697E-02	1.323E-01	2.133E-01	0.000E+00	FAIL ABUN
BA-137M	3.058E-03	4.288E-02	7.217E-02	0.000E+00	NOT IDENT.
CS-137	3.232E-03	4.533E-02	7.630E-02	0.000E+00	NOT IDENT.
CE-139	-1.485E-02	2.788E-02	4.760E-02	0.000E+00	NOT IDENT.
BA-140	-4.451E-02	2.863E-01	4.817E-01	0.000E+00	NOT IDENT.
LA-140	-5.962E-02	9.071E-02	1.341E-01	0.000E+00	FAIL ABUN
CE-141	5.089E-02	5.760E-02	1.056E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.873E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.010E-01	1.805E-01	3.120E-01	0.000E+00	NOT IDENT.
PM-144	9.209E-03	3.918E-02	7.017E-02	0.000E+00	NOT IDENT.

PR-144	6.240E-01	2.655E+00	4.755E+00	0.000E+00	NOT IDENT.
PM-146	2.804E-03	4.551E-02	7.929E-02	0.000E+00	NOT IDENT.
ND-147	1.888E-01	6.126E-01	1.073E+00	0.000E+00	FAIL ABUN
PM-149	2.917E+01	7.992E+01	1.469E+02	0.000E+00	NOT IDENT.
EU-152	-7.849E-02	9.692E-02	1.486E-01	0.000E+00	NOT IDENT.
GD-153	-5.538E-03	6.642E-02	1.080E-01	0.000E+00	FAIL ABUN
EU-154	-3.808E-03	1.678E-01	2.769E-01	0.000E+00	NOT IDENT.
EU-155	1.319E-01	8.941E-02	1.695E-01	0.000E+00	FAIL ABUN
TB-160	1.390E-01	1.747E-01	3.210E-01	0.000E+00	FAIL ABUN
HO-166M	8.940E-02	7.035E-02	1.347E-01	0.000E+00	FAIL ABUN
TM-171	4.068E+00	1.483E+01	2.507E+01	0.000E+00	NOT IDENT.
LU-176	-4.474E-03	2.332E-02	4.135E-02	0.000E+00	FAIL ABUN
LU-177	1.498E+00	1.412E+00	2.027E+00	0.000E+00	FAIL ABUN
LU-177M	-1.103E-01	1.813E-01	3.030E-01	0.000E+00	FAIL ABUN
HF-181	-1.195E-02	4.530E-02	7.646E-02	0.000E+00	NOT IDENT.
W-181	-6.419E-02	1.848E-01	3.049E-01	0.000E+00	NOT IDENT.
TA-182	-2.217E-01	2.501E-01	3.775E-01	0.000E+00	NOT IDENT.
RE-183	1.170E-03	1.033E-01	1.816E-01	0.000E+00	FAIL ABUN
RE-184	8.296E-02	2.092E-01	3.640E-01	0.000E+00	NOT IDENT.
OS-185	4.306E-03	4.801E-02	8.119E-02	0.000E+00	NOT IDENT.
RE-188	8.117E-02	1.615E-01	2.910E-01	0.000E+00	NOT IDENT.
W-188	-3.401E-01	7.401E+00	1.173E+01	0.000E+00	FAIL ABUN
IR-192	-4.604E-02	3.214E-02	5.174E-02	0.000E+00	FAIL ABUN
AU-195	1.022E-01	1.923E-01	3.225E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.212E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	4.252E+00	6.426E+00	1.160E+01	0.000E+00	NOT IDENT.
TL-202	1.535E-02	7.503E-02	1.323E-01	0.000E+00	NOT IDENT.
BI-207	8.888E-02	6.277E-02	1.201E-01	0.000E+00	FAIL ABUN
TL-207	4.590E-01	6.721E-01	1.109E+00	0.000E+00	FAIL ABUN
PO-209	1.398E+00	8.412E+00	1.468E+01	0.000E+00	NOT IDENT.
BI-210	6.231E-01	5.609E-01	1.035E+00	0.000E+00	NOT IDENT.
PB-210	6.231E-01	5.609E-01	1.035E+00	0.000E+00	NOT IDENT.
PO-210	6.231E-01	5.603E-01	1.035E+00	0.000E+00	NOT IDENT.
PB-211	2.408E-01	9.490E-01	1.671E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.633E-01	7.410E-01	0.000E+00	FAIL ABUN
PO-215	4.590E-01	6.721E-01	1.109E+00	0.000E+00	FAIL ABUN
RN-219	-2.212E-02	4.054E-01	7.081E-01	0.000E+00	FAIL ABUN
RN-220	1.659E+01	2.851E+01	5.089E+01	0.000E+00	NOT IDENT.
RA-223	4.590E-01	6.721E-01	1.109E+00	0.000E+00	FAIL ABUN
AC-227	-1.643E-01	3.693E-01	6.060E-01	0.000E+00	FAIL ABUN
TH-227	-1.643E-01	3.697E-01	6.060E-01	0.000E+00	FAIL ABUN
TH-229	3.358E-01	4.710E-01	8.452E-01	0.000E+00	FAIL ABUN
PA-231	3.648E-03	1.405E+00	2.537E+00	0.000E+00	FAIL ABUN
TH-231	4.590E-01	6.721E-01	1.109E+00	0.000E+00	FAIL ABUN
U-231	1.366E-01	8.564E-01	1.413E+00	0.000E+00	FAIL ABUN
PA-233	2.036E-02	6.263E-02	1.142E-01	0.000E+00	FAIL ABUN
PA-234	6.378E-02	3.357E-01	5.844E-01	0.000E+00	FAIL ABUN
PA-234M	3.891E+00	5.786E+00	1.041E+01	0.000E+00	NOT IDENT.
U-235	-9.489E-02	1.937E-01	3.345E-01	0.000E+00	FAIL ABUN
NP-236	4.946E-02	7.558E-02	1.367E-01	0.000E+00	NOT IDENT.
NP-239	1.264E-02	1.662E-01	2.999E-01	0.000E+00	FAIL ABUN
AM-241	2.461E-02	5.771E-02	1.051E-01	0.000E+00	NOT IDENT.
CM-243	-1.666E-03	7.946E-02	1.440E-01	0.000E+00	FAIL ABUN
AM-246	1.539E-01	1.905E-01	3.441E-01	0.000E+00	NOT IDENT.
CM-247	3.655E-03	3.660E-02	6.461E-02	0.000E+00	FAIL ABUN
CF-249	4.489E-02	4.242E-02	7.920E-02	0.000E+00	NOT IDENT.
CF-251	-1.146E-01	1.256E-01	2.089E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:07:46.81

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837003.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:06:16
Sample ID         : G246837003           Sample quantity  : 1.45530E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.28  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1062	10.67*	7.783E-01	3.300E+01	3.300E+01	11.00
CD-109	88.03	221	3.72*	6.676E+00	2.294E+00	2.346E+00	37.94
SN-126	64.28	133	9.60	6.779E+00	5.279E-01	5.279E-01	61.32
	86.94	221	8.90	6.676E+00	9.589E-01	9.589E-01	55.46
	87.57	221	37.00*	6.676E+00	2.307E-01	2.307E-01	37.94
HG-203	70.83	------	4.75	6.807E+00	------ Line Not Found		------
	72.87	------	8.00	6.803E+00	------ Line Not Found		------
	82.60	------	3.55	6.732E+00	------ Line Not Found		------
	279.20	63	77.30*	3.562E+00	5.889E-02	7.366E-02	81.45
TL-208	277.35	63	6.80	3.562E+00	6.694E-01	6.694E-01	81.90
	510.84	129	21.60	2.058E+00	7.505E-01	7.505E-01	49.68
	583.14	318	84.20*	1.812E+00	5.372E-01	5.372E-01	19.63
	860.37	41	12.46	1.247E+00	6.741E-01	6.741E-01	65.00
BI-211	72.87	------	1.27	6.803E+00	------ Line Not Found		------
	351.07	487	12.94*	2.909E+00	3.340E+00	3.340E+00	17.30
PB-212	74.81	530	10.70	6.795E+00	1.882E+00	1.882E+00	20.85
	77.11	882	18.00	6.782E+00	1.864E+00	1.864E+00	13.76
	87.30	221	8.00	6.676E+00	1.067E+00	1.067E+00	39.24
	238.63	1099	44.60*	4.022E+00	1.580E+00	1.580E+00	12.33
	300.09	63	3.41	3.340E+00	1.431E+00	1.431E+00	69.12
PO-212	74.81	530	10.70	6.795E+00	1.882E+00	1.882E+00	20.85
	77.11	882	18.00	6.782E+00	1.864E+00	1.864E+00	13.76
	87.30	221	8.00	6.676E+00	1.067E+00	1.067E+00	39.24
	115.19	------	0.60	6.177E+00	------ Line Not Found		------
	238.63	1099	44.60*	4.022E+00	1.580E+00	1.580E+00	12.33
	300.09	63	3.41	3.340E+00	1.431E+00	1.431E+00	69.12
BI-214	609.31	330	46.30*	1.737E+00	1.057E+00	1.057E+00	18.77
	1120.29	54	15.10	9.777E-01	9.351E-01	9.351E-01	67.27
	1764.49	57	15.80	6.718E-01	1.381E+00	1.381E+00	37.01
PB-214	74.81	530	6.21	6.795E+00	3.243E+00	3.243E+00	20.06
	77.11	882	10.50	6.782E+00	3.196E+00	3.196E+00	15.73
	87.30	221	4.67	6.676E+00	1.828E+00	1.828E+00	38.72

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	254	7.49	3.984E+00	2.197E+00	2.197E+00	30.21
	295.21	339	19.20	3.387E+00	1.345E+00	1.345E+00	22.25
	351.92	487	37.20*	2.909E+00	1.162E+00	1.162E+00	18.07
PO-214	74.81	530	6.21	6.795E+00	3.243E+00	3.243E+00	20.06
	77.11	882	10.50	6.782E+00	3.196E+00	3.196E+00	15.73
	87.30	221	4.67	6.676E+00	1.828E+00	1.828E+00	38.72
	241.98	254	7.49	3.984E+00	2.197E+00	2.197E+00	30.21
	295.21	339	19.20	3.387E+00	1.345E+00	1.345E+00	22.25
	351.92	487	37.20*	2.909E+00	1.162E+00	1.162E+00	18.07
PO-216	74.81	530	10.70	6.795E+00	1.882E+00	1.882E+00	20.85
	77.11	882	18.00	6.782E+00	1.864E+00	1.864E+00	13.76
	87.30	221	8.00	6.676E+00	1.067E+00	1.067E+00	39.24
	238.63	1099	44.60*	4.022E+00	1.580E+00	1.580E+00	12.33
	300.09	63	3.41	3.340E+00	1.431E+00	1.431E+00	69.12
PO-218	74.81	530	6.21	6.795E+00	3.243E+00	3.243E+00	20.06
	77.11	882	10.50	6.782E+00	3.196E+00	3.196E+00	15.73
	87.30	221	4.67	6.676E+00	1.828E+00	1.828E+00	38.72
	241.98	254	7.49	3.984E+00	2.197E+00	2.197E+00	30.21
	295.21	339	19.20	3.387E+00	1.345E+00	1.345E+00	22.25
	351.92	487	37.20*	2.909E+00	1.162E+00	1.162E+00	18.07
RA-224	240.98	254	3.95*	3.984E+00	4.166E+00	4.166E+00	29.68
RA-226	609.31	330	46.30*	1.737E+00	1.057E+00	1.057E+00	18.77
	1120.29	54	15.10	9.777E-01	9.351E-01	9.351E-01	67.27
	1764.49	57	15.80	6.718E-01	1.381E+00	1.381E+00	37.01
AC-228	338.32	237	11.40	3.013E+00	1.783E+00	1.783E+00	49.93
	911.07	188	27.70*	1.182E+00	1.481E+00	1.481E+00	24.99
	969.11	142	16.60	1.117E+00	1.976E+00	1.976E+00	38.25
RA-228	338.32	237	11.40	3.013E+00	1.783E+00	1.783E+00	49.93
	911.07	188	27.70*	1.182E+00	1.481E+00	1.481E+00	24.99
	969.11	142	16.60	1.117E+00	1.976E+00	1.976E+00	38.25
TH-228	74.81	530	10.70	6.795E+00	1.882E+00	1.910E+00	18.67
	77.11	882	18.00	6.782E+00	1.864E+00	1.892E+00	13.76
	87.30	221	8.00	6.676E+00	1.067E+00	1.083E+00	37.94
	238.63	1099	44.60*	4.022E+00	1.580E+00	1.604E+00	12.33
	300.09	63	3.41	3.340E+00	1.431E+00	1.452E+00	90.46
TH-230	609.31	330	46.30*	1.737E+00	1.057E+00	1.057E+00	18.77
	1120.29	54	15.10	9.777E-01	9.351E-01	9.351E-01	67.27
	1764.49	57	15.80	6.718E-01	1.381E+00	1.381E+00	37.01
TH-232	338.32	237	11.40	3.013E+00	1.783E+00	1.783E+00	29.40
	911.07	188	27.70*	1.182E+00	1.481E+00	1.481E+00	24.99
	969.11	142	16.60	1.117E+00	1.976E+00	1.976E+00	38.25
TH-234	63.29	133	3.80*	6.779E+00	1.334E+00	1.334E+00	62.08
	92.38	303	5.41	6.591E+00	2.191E+00	2.191E+00	36.21
U-234	609.31	330	46.30*	1.737E+00	1.057E+00	1.057E+00	18.77
	1120.29	54	15.10	9.777E-01	9.351E-01	9.351E-01	67.27
	1764.49	57	15.80	6.718E-01	1.381E+00	1.381E+00	37.01
NP-237	86.50	221	12.60*	6.676E+00	6.773E-01	6.773E-01	43.19
	95.87	------	2.60	6.543E+00	------ Line Not Found		------
U-238	63.29	133	3.80*	6.779E+00	1.334E+00	1.334E+00	62.08

Sample ID : G246837003 Acquisition date : 23-FEB-2010 12:06:16

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	92.38	303	5.41	6.591E+00	2.191E+00	2.191E+00	32.53
AM-243	74.67	530	66.00*	6.795E+00	3.051E-01	3.051E-01	18.64
	86.72	221	0.34	6.676E+00	2.540E+01	2.540E+01	37.94
	117.66	------	0.55	6.127E+00	------	Line Not Found	------
	142.18	------	0.13	5.624E+00	------	Line Not Found	------
ANH-511	511.00	129	100.00*	2.058E+00	1.621E-01	1.621E-01	48.98

Flag: "*" = Keyline

Sample ID : G246837003 Acquisition date : 23-FEB-2010 12:06:16

Total number of lines in spectrum 30
Number of unidentified lines 0
Number of lines tentatively identified by NID 30 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.300E+01	3.300E+01	0.363E+01	11.00	
CD-109	464.00D	1.02	2.294E+00	2.346E+00	0.890E+00	37.94	
SN-126	1.00E+05Y	1.00	2.307E-01	2.307E-01	0.875E-01	37.94	
HG-203	46.60D	1.25	5.889E-02	7.366E-02	6.000E-02	81.45	
TL-208	1.41E+10Y	1.00	5.372E-01	5.372E-01	1.054E-01	19.63	
BI-211	7.04E+08Y	1.00	3.340E+00	3.340E+00	0.578E+00	17.30	
PB-212	1.41E+10Y	1.00	1.580E+00	1.580E+00	0.195E+00	12.33	
PO-212	1.41E+10Y	1.00	1.580E+00	1.580E+00	0.195E+00	12.33	
BI-214	1600.00Y	1.00	1.057E+00	1.057E+00	0.198E+00	18.77	
PB-214	1600.00Y	1.00	1.162E+00	1.162E+00	0.210E+00	18.07	
PO-214	1600.00Y	1.00	1.162E+00	1.162E+00	0.210E+00	18.07	
PO-216	1.41E+10Y	1.00	1.580E+00	1.580E+00	0.195E+00	12.33	
PO-218	1600.00Y	1.00	1.162E+00	1.162E+00	0.210E+00	18.07	
RA-224	1.41E+10Y	1.00	4.166E+00	4.166E+00	1.237E+00	29.68	
RA-226	1600.00Y	1.00	1.057E+00	1.057E+00	0.198E+00	18.77	
AC-228	1.41E+10Y	1.00	1.481E+00	1.481E+00	0.370E+00	24.99	
RA-228	1.41E+10Y	1.00	1.481E+00	1.481E+00	0.370E+00	24.99	
TH-228	1.91Y	1.02	1.580E+00	1.604E+00	0.198E+00	12.33	
TH-230	4.47E+09Y	1.00	1.057E+00	1.057E+00	0.198E+00	18.77	
TH-232	1.41E+10Y	1.00	1.481E+00	1.481E+00	0.370E+00	24.99	
TH-234	4.47E+09Y	1.00	1.334E+00	1.334E+00	0.828E+00	62.08	
U-234	4.47E+09Y	1.00	1.057E+00	1.057E+00	0.198E+00	18.77	
NP-237	2.14E+06Y	1.00	6.773E-01	6.773E-01	2.926E-01	43.19	
U-238	4.47E+09Y	1.00	1.334E+00	1.334E+00	0.828E+00	62.08	
AM-243	7380.00Y	1.00	3.051E-01	3.051E-01	0.569E-01	18.64	
ANH-511	1.00E+09Y	1.00	1.621E-01	1.621E-01	0.794E-01	48.98	
	Total Activity :		6.591E+01	6.600E+01			

Grand Total Activity : 6.591E+01 6.600E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246837003 Acquisition date : 23-FEB-2010 12:06:16

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.23	121	434	1.02	168.11	165	7	1.69E-02	60.4	6.71E+00	T
5	90.11	121	278	0.94	179.87	178	16	1.69E-02	41.8	6.63E+00	T
0	185.83	206	375	1.21	371.40	365	12	2.85E-02	41.1	4.81E+00	T
0	208.94	60	255	0.97	417.63	414	8	8.32E-03	95.7	4.44E+00	T
0	270.00	92	213	1.32	539.80	535	11	1.28E-02	65.3	3.65E+00	T
0	327.41	60	191	1.20	654.66	650	12	8.31E-03	95.7	3.10E+00	T
0	463.29	48	80	1.29	926.56	921	8	6.65E-03	71.4	2.26E+00	T
0	726.79	63	47	1.65	1453.85	1449	9	8.70E-03	49.5	1.46E+00	T
0	794.52	78	61	1.68	1589.39	1582	17	1.09E-02	50.7	1.34E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:07:51.83

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837003.CNF;1  *
* Acquisition date : 23-FEB-2010 12:06:16  Detector SN#    :                *
* Detector ID      : GAM17                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:10.28         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 8-FEB-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G246837003            Analyst initials: MXR1           *
* Batch Number     : 952641                Sample Quantity : 1.45530E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.300E+01	3.629E+00	4.135E-01	3.672E-02	79.788
CD-109	2.346E+00	8.903E-01	1.000E+00	9.764E-02	2.346
SN-126	2.307E-01	8.752E-02	9.818E-02	9.581E-03	2.349
HG-203	7.366E-02	6.000E-02	5.691E-02	5.356E-03	1.294
TL-208	5.372E-01	1.054E-01	6.759E-02	6.393E-03	7.947
BI-211	3.340E+00	5.777E-01	3.249E-01	3.032E-02	10.280
PB-212	1.580E+00	1.948E-01	8.929E-02	9.002E-03	17.696
PO-212	1.580E+00	1.948E-01	8.929E-02	9.002E-03	17.696
BI-214	1.057E+00	1.984E-01	1.253E-01	1.274E-02	8.440
PB-214	1.162E+00	2.099E-01	1.133E-01	1.211E-02	10.255
PO-214	1.162E+00	2.099E-01	1.133E-01	1.211E-02	10.255
PO-216	1.580E+00	1.948E-01	8.929E-02	9.002E-03	17.696
PO-218	1.162E+00	2.099E-01	1.133E-01	1.211E-02	10.255
RA-224	4.166E+00	1.237E+00	1.017E+00	9.197E-02	4.097
RA-226	1.057E+00	1.984E-01	1.253E-01	1.274E-02	8.440
AC-228	1.481E+00	3.702E-01	2.296E-01	2.604E-02	6.451
RA-228	1.481E+00	3.702E-01	2.296E-01	2.604E-02	6.451
TH-228	1.604E+00	1.978E-01	9.063E-02	9.137E-03	17.696

Sample ID : G246837003 Acquisition date : 23-FEB-2010 12:06:16

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.057E+00	1.984E-01	1.253E-01	1.274E-02	8.440
TH-232	1.481E+00	3.702E-01	2.296E-01	2.604E-02	6.451
TH-234	1.334E+00	8.279E-01	9.375E-01	1.750E-01	1.423
U-234	1.057E+00	1.984E-01	1.253E-01	1.274E-02	8.440
NP-237	6.773E-01	2.926E-01	2.566E-01	5.857E-02	2.640
U-238	1.334E+00	8.279E-01	9.375E-01	1.750E-01	1.423
AM-243	3.051E-01	5.686E-02	5.565E-02	5.433E-03	5.483
ANH-511	1.621E-01	7.940E-02	4.884E-02	4.362E-03	3.319

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.348E-03		3.482E-01	5.715E-01	5.437E-02	0.008
NA-22	-2.534E-03		6.120E-02	9.788E-02	8.246E-03	-0.026
NA-24	-7.194E-01		3.589E-01	Half-Life too short		
AL-26	1.120E-02		2.862E-02	5.158E-02	4.323E-03	0.217
TI-44	3.440E-01	+	4.734E-02	5.642E-02	5.497E-03	6.097
SC-46	-1.596E-02		4.719E-02	7.540E-02	6.601E-03	-0.212
V-48	-1.134E-01		1.016E-01	1.484E-01	1.295E-02	-0.764
CR-51	3.387E-02		3.501E-01	5.927E-01	5.660E-02	0.057
MN-52	1.375E-01		2.264E-01	4.151E-01	3.579E-02	0.331
MN-54	-3.328E-02		4.460E-02	6.891E-02	6.059E-03	-0.483
CO-56	-5.708E-03		4.541E-02	7.450E-02	6.549E-03	-0.077
CO-57	-1.684E-02		2.256E-02	3.588E-02	4.203E-03	-0.469
CO-58	-4.346E-02		4.586E-02	6.901E-02	6.078E-03	-0.630
FE-59	3.511E-02		1.196E-01	2.002E-01	1.837E-02	0.175
CO-60	-6.768E-03		4.722E-02	7.772E-02	6.624E-03	-0.087
ZN-65	2.929E-02		1.221E-01	1.796E-01	1.512E-02	0.163
GE-68	1.889E+00		1.659E+00	2.986E+00	2.548E-01	0.633
AS-73	1.121E-01		2.065E-01	3.593E-01	3.595E-02	0.312
AS-74	3.189E-02		1.072E-01	1.773E-01	1.562E-02	0.180
SE-75	-1.348E-02		4.752E-02	6.500E-02	5.972E-03	-0.207
BR-77	8.161E+00		1.190E+01	2.040E+01	1.823E+00	0.400
SR-82	-3.956E-01		4.388E-01	6.693E-01	5.857E-02	-0.591
RB-83	5.872E-02		8.149E-02	1.399E-01	1.251E-02	0.420
RB-84	7.854E-03		9.118E-02	1.522E-01	1.334E-02	0.052
KR-85	4.345E+00		8.409E+00	1.268E+01	1.133E+00	0.343
SR-85	2.225E-02		4.306E-02	6.495E-02	5.803E-03	0.343
RB-86	1.120E+00		1.040E+00	1.864E+00	1.591E-01	0.601
Y-88	-6.587E-03		3.666E-02	5.703E-02	4.756E-03	-0.116
ZR-88	-3.686E-02		3.110E-02	4.687E-02	3.949E-03	-0.786
Y-91	-9.199E+00		2.537E+01	3.950E+01	3.260E+00	-0.233
NB-94	-2.168E-02		3.923E-02	6.307E-02	5.410E-03	-0.344
NB-95	4.169E-02		4.893E-02	8.728E-02	7.624E-03	0.478
NB-95M	-5.901E-02		1.360E-01	1.863E-01	1.902E-02	-0.317
ZR-95	-2.749E-02		9.008E-02	1.471E-01	1.410E-02	-0.187
NB-97	-1.757E-02		5.697E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	3.913E+00		9.742E-01	Half-Life too short		
MO-99	9.768E-01		1.396E+01	2.357E+01	3.587E+00	0.041
TC-99M	1.028E+10		1.284E+10	Half-Life too short		
RH-101	-1.109E-02		3.242E-02	5.090E-02	4.425E-03	-0.218
RH-102	-2.786E-03		3.027E-02	4.926E-02	4.363E-03	-0.057
RU-103	4.887E-03		4.161E-02	6.871E-02	9.854E-03	0.071
RH-106	3.099E-01		4.056E-01	6.903E-01	9.251E-02	0.449
RU-106	3.099E-01		4.044E-01	6.903E-01	5.997E-02	0.449
AG-108M	9.555E-03		3.645E-02	6.125E-02	5.529E-03	0.156
AG-110M	-1.682E-02		4.649E-02	7.208E-02	6.282E-03	-0.233
IN-111	9.597E-01		1.093E+00	1.655E+00	1.501E-01	0.580
IN-113M	-2.507E-02		4.543E-02	7.244E-02	6.294E-03	-0.346
SN-113	-2.507E-02		4.543E-02	7.244E-02	6.294E-03	-0.346
IN-114M	-1.367E-01		1.912E-01	2.603E-01	2.242E-02	-0.525
CD-115	-4.619E+00		1.133E+01	1.775E+01	1.587E+00	-0.260
SN-117M	-1.704E-02		5.325E-02	8.553E-02	7.688E-03	-0.199
SB-122	1.854E-01		2.264E+00	3.693E+00	3.289E-01	0.050
I-123	4.101E+00		2.394E+00	Half-Life too short		
TE-123M	2.335E-02		2.726E-02	4.613E-02	4.152E-03	0.506
I-124	-5.210E-01		8.191E-01	1.131E+00	9.936E-02	-0.460
SB-124	-3.645E-04		7.243E-02	1.188E-01	1.057E-02	-0.003
SB-125	2.970E-02		1.015E-01	1.711E-01	1.509E-02	0.174
TE-125M	1.114E+00		7.671E+00	1.283E+01	1.576E+00	0.087
I-126	-5.688E-02		2.041E-01	3.173E-01	2.679E-02	-0.179
SB-126	-1.382E-01		1.845E-01	2.586E-01	2.232E-02	-0.534
SB-127	8.922E-02		1.505E+00	2.417E+00	2.724E-01	0.037
XE-127	-1.051E-02		4.573E-02	7.268E-02	6.354E-03	-0.145
I-131	-4.015E-02		1.108E-01	1.800E-01	1.662E-02	-0.223
TE-132	-3.606E-01		6.585E-01	1.014E+00	1.610E-01	-0.356
BA-133	4.346E-05		4.520E-02	6.654E-02	8.890E-03	0.001
I-133	-3.336E-03		3.051E-03	Half-Life too short		
CS-134	1.978E-01	+	1.017E-01	1.203E-01	1.063E-02	1.643
CS-135	2.474E-01		1.858E-01	2.859E-01	2.983E-02	0.866
I-135	6.082E+09		2.632E+09	Half-Life too short		
CS-136	-5.697E-02		1.350E-01	2.104E-01	1.889E-02	-0.271
BA-137M	3.058E-03		4.376E-02	7.046E-02	5.936E-03	0.043
CS-137	3.232E-03		4.626E-02	7.449E-02	6.287E-03	0.043
CE-139	-1.485E-02		2.845E-02	4.506E-02	3.758E-03	-0.329
BA-140	-4.451E-02		2.921E-01	4.680E-01	1.555E-01	-0.095
LA-140	-5.962E-02		9.257E-02	1.337E-01	1.154E-02	-0.446
CE-141	5.089E-02		5.877E-02	9.969E-02	1.017E-02	0.510
CE-143	4.996E-04		9.555E-05	Half-Life too short		
CE-144	-1.010E-01		1.841E-01	2.940E-01	4.987E-02	-0.344
PM-144	9.209E-03		3.998E-02	6.859E-02	5.871E-03	0.134
PR-144	6.240E-01		2.709E+00	4.647E+00	3.977E-01	0.134
PM-146	2.804E-03		4.643E-02	7.675E-02	8.330E-03	0.037
ND-147	1.888E-01		6.251E-01	1.042E+00	1.577E-01	0.181
PM-149	2.917E+01		8.156E+01	1.408E+02	2.233E+01	0.207

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-7.849E-02		9.890E-02	1.430E-01	1.352E-02	-0.549
GD-153	-5.538E-03		6.777E-02	1.011E-01	1.034E-02	-0.055
EU-154	-3.808E-03		1.713E-01	2.745E-01	3.062E-02	-0.014
EU-155	1.319E-01		9.124E-02	1.589E-01	1.707E-02	0.830
TB-160	1.390E-01		1.783E-01	3.154E-01	2.765E-02	0.441
HO-166M	8.940E-02		7.178E-02	1.318E-01	1.134E-02	0.678
TM-171	4.068E+00		1.514E+01	2.328E+01	2.298E+00	0.175
LU-176	-4.474E-03		2.379E-02	3.968E-02	3.635E-03	-0.113
LU-177	1.498E+00	+	1.441E+00	1.928E+00	1.696E-01	0.777
LU-177M	-1.103E-01		1.850E-01	2.927E-01	2.508E-02	-0.377
HF-181	-1.195E-02		4.622E-02	7.411E-02	6.580E-03	-0.161
W-181	-6.419E-02		1.886E-01	2.830E-01	2.803E-02	-0.227
TA-182	-2.217E-01		2.552E-01	3.739E-01	3.101E-02	-0.593
RE-183	1.170E-03		1.054E-01	1.719E-01	1.488E-02	0.007
RE-184	8.296E-02		2.134E-01	3.478E-01	3.167E-02	0.239
OS-185	4.306E-03		4.899E-02	7.922E-02	6.764E-03	0.054
RE-188	8.117E-02		1.648E-01	2.750E-01	2.555E-02	0.295
W-188	-3.401E-01		7.552E+00	1.125E+01	1.033E+00	-0.030
IR-192	-4.604E-02		3.280E-02	4.968E-02	4.545E-03	-0.927
AU-195	1.022E-01		1.962E-01	3.019E-01	3.110E-02	0.339
TL-200	4.346E-05		2.149E-04	Half-Life too short		
TL-201	4.252E+00		6.557E+00	1.099E+01	9.175E-01	0.387
TL-202	1.535E-02		7.656E-02	1.280E-01	1.116E-02	0.120
BI-207	8.888E-02		6.405E-02	1.185E-01	1.016E-02	0.750
TL-207	4.590E-01		6.858E-01	1.065E+00	1.911E-01	0.431
PO-209	1.398E+00		8.584E+00	1.444E+01	1.262E+00	0.097
BI-210	6.231E-01		5.723E-01	9.542E-01	1.035E-01	0.653
PB-210	6.231E-01		5.723E-01	9.542E-01	1.035E-01	0.653
PO-210	6.231E-01		5.718E-01	9.542E-01	9.640E-02	0.653
PB-211	2.408E-01		9.683E-01	1.614E+00	1.011E+00	0.149
BI-212	9.353E-01	+	4.728E-01	7.250E-01	7.274E-02	1.290
PO-215	4.590E-01		6.858E-01	1.065E+00	1.911E-01	0.431
RN-219	-2.212E-02		4.137E-01	6.836E-01	1.022E-01	-0.032
RN-220	1.659E+01		2.909E+01	4.947E+01	4.417E+00	0.335
RA-223	4.590E-01		6.858E-01	1.065E+00	1.911E-01	0.431
AC-227	-1.643E-01		3.769E-01	5.791E-01	9.054E-02	-0.284
TH-227	-1.643E-01		3.772E-01	5.791E-01	1.060E-01	-0.284
TH-229	3.358E-01		4.806E-01	8.028E-01	6.943E-02	0.418
PA-231	3.648E-03		1.434E+00	2.430E+00	3.770E-01	0.002
TH-231	4.590E-01		6.858E-01	1.065E+00	1.911E-01	0.431
U-231	1.366E-01		8.739E-01	1.322E+00	1.341E-01	0.103
PA-233	2.036E-02		6.391E-02	1.096E-01	1.028E-02	0.186
PA-234	6.378E-02		3.426E-01	5.753E-01	1.083E-01	0.111
PA-234M	3.891E+00		5.904E+00	1.026E+01	1.030E+00	0.379
U-235	-9.489E-02		1.976E-01	3.157E-01	5.788E-02	-0.301
NP-236	4.946E-02		7.712E-02	1.293E-01	1.143E-02	0.382
NP-239	1.264E-02		1.695E-01	2.818E-01	3.205E-02	0.045
AM-241	2.461E-02		5.889E-02	9.737E-02	1.034E-02	0.253

Sample ID : G246837003 Acquisition date : 23-FEB-2010 12:06:16

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.666E-03		8.109E-02	1.350E-01	1.427E-02	-0.012
AM-246	1.539E-01		1.944E-01	3.398E-01	2.899E-02	0.453
CM-247	3.655E-03		3.735E-02	6.237E-02	5.298E-03	0.059
CF-249	4.489E-02		4.329E-02	7.639E-02	6.472E-03	0.588
CF-251	-1.146E-01		1.281E-01	1.980E-01	1.675E-02	-0.578

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246837003           *
* Acquisition date  : 23-FEB-2010 12:06:16 Detector SN#     :               *
* Detector ID       : GAM17                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:10.28      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  8-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246837003           Analyst initials: MXR1           *
* Batch Number      : 952641               Sample Quantity : 1.4553E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.300E+01	3.556E+00	2.080E-01	1.814E+00
CD-109	2.346E+00	8.725E-01	5.357E-01	4.451E-01
SN-126	2.307E-01	8.577E-02	5.260E-02	4.376E-02
HG-203	7.366E-02	5.880E-02	2.974E-02	3.000E-02
TL-208	5.372E-01	1.033E-01	3.474E-02	5.272E-02
BI-211	3.340E+00	5.662E-01	1.689E-01	2.889E-01
PB-212	1.580E+00	1.909E-01	4.682E-02	9.742E-02
PO-212	1.580E+00	1.909E-01	4.682E-02	9.742E-02
BI-214	1.057E+00	1.944E-01	6.431E-02	9.920E-02
PB-214	1.162E+00	2.057E-01	5.889E-02	1.050E-01
PO-214	1.162E+00	2.057E-01	5.889E-02	1.050E-01
PO-216	1.580E+00	1.909E-01	4.682E-02	9.742E-02
PO-218	1.162E+00	2.057E-01	5.889E-02	1.050E-01
RA-224	4.166E+00	1.212E+00	5.331E-01	6.183E-01
RA-226	1.057E+00	1.944E-01	6.431E-02	9.920E-02
AC-228	1.481E+00	3.628E-01	1.168E-01	1.851E-01
RA-228	1.481E+00	3.628E-01	1.168E-01	1.851E-01
TH-228	1.604E+00	1.938E-01	4.752E-02	9.889E-02
TH-230	1.057E+00	1.944E-01	6.431E-02	9.920E-02
TH-232	1.481E+00	3.628E-01	1.168E-01	1.851E-01
TH-234	1.334E+00	8.114E-01	5.057E-01	4.140E-01
U-234	1.057E+00	1.944E-01	6.431E-02	9.920E-02
NP-237	6.773E-01	2.867E-01	1.375E-01	1.463E-01
U-238	1.334E+00	8.114E-01	5.057E-01	4.140E-01
AM-243	3.051E-01	5.573E-02	2.991E-02	2.843E-02
ANH-511	1.621E-01	7.781E-02	2.517E-02	3.970E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.348E-03	3.413E-01	2.950E-01	1.741E-01 NOT IDENT.

NA-22	-2.534E-03	5.997E-02	4.940E-02	3.060E-02	NOT IDENT.
NA-24	-7.194E+05	7.034E+05	0.000E+00	3.589E+05	SHORT HLIF
AL-26	1.120E-02	2.804E-02	2.581E-02	1.431E-02	NOT IDENT.
TI-44	3.440E-01	4.640E-02	3.029E-02	2.367E-02	FAIL ABUN
SC-46	-1.596E-02	4.625E-02	3.837E-02	2.360E-02	FAIL ABUN
V-48	-1.134E-01	9.958E-02	7.537E-02	5.080E-02	NOT IDENT.
CR-51	3.387E-02	3.431E-01	3.088E-01	1.751E-01	NOT IDENT.
MN-52	1.375E-01	2.219E-01	2.089E-01	1.132E-01	NOT IDENT.
MN-54	-3.328E-02	4.371E-02	3.512E-02	2.230E-02	NOT IDENT.
CO-56	-5.708E-03	4.450E-02	3.796E-02	2.270E-02	NOT IDENT.
CO-57	-1.684E-02	2.211E-02	1.908E-02	1.128E-02	NOT IDENT.
CO-58	-4.346E-02	4.495E-02	3.520E-02	2.293E-02	NOT IDENT.
FE-59	3.511E-02	1.172E-01	1.014E-01	5.978E-02	NOT IDENT.
CO-60	-6.768E-03	4.628E-02	3.918E-02	2.361E-02	NOT IDENT.
ZN-65	2.929E-02	1.197E-01	9.094E-02	6.106E-02	NOT IDENT.
GE-68	1.889E+00	1.626E+00	1.513E+00	8.297E-01	NOT IDENT.
AS-73	1.121E-01	2.024E-01	1.945E-01	1.032E-01	NOT IDENT.
AS-74	3.189E-02	1.050E-01	9.105E-02	5.358E-02	NOT IDENT.
SE-75	-1.348E-02	4.657E-02	3.400E-02	2.376E-02	NOT IDENT.
BR-77	8.161E+00	1.167E+01	1.051E+01	5.952E+00	FAIL ABUN
SR-82	-3.956E-01	4.300E-01	3.417E-01	2.194E-01	NOT IDENT.
RB-83	5.872E-02	7.986E-02	7.210E-02	4.074E-02	NOT IDENT.
RB-84	7.854E-03	8.936E-02	7.748E-02	4.559E-02	NOT IDENT.
KR-85	4.345E+00	8.240E+00	6.537E+00	4.204E+00	NOT IDENT.
SR-85	2.225E-02	4.220E-02	3.348E-02	2.153E-02	NOT IDENT.
RB-86	1.120E+00	1.019E+00	9.446E-01	5.201E-01	NOT IDENT.
Y-88	-6.587E-03	3.593E-02	2.853E-02	1.833E-02	NOT IDENT.
ZR-88	-3.686E-02	3.048E-02	2.431E-02	1.555E-02	NOT IDENT.
Y-91	-9.199E+00	2.486E+01	1.996E+01	1.268E+01	NOT IDENT.
NB-94	-2.168E-02	3.844E-02	3.227E-02	1.961E-02	NOT IDENT.
NB-95	4.169E-02	4.795E-02	4.458E-02	2.446E-02	NOT IDENT.
NB-95M	-5.901E-02	1.332E-01	9.770E-02	6.798E-02	NOT IDENT.
ZR-95	-2.749E-02	8.827E-02	7.517E-02	4.504E-02	NOT IDENT.
NB-97	-1.757E+04	1.117E+05	0.000E+00	5.697E+04	SHORT HLIF
ZR-97	3.913E+06	1.909E+06	0.000E+00	9.742E+05	SHORT HLIF
MO-99	9.768E-01	1.369E+01	1.205E+01	6.982E+00	NOT IDENT.
TC-99M	1.028E+16	2.517E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.109E-02	3.177E-02	2.679E-02	1.621E-02	NOT IDENT.
RH-102	-2.786E-03	2.966E-02	2.543E-02	1.513E-02	NOT IDENT.
RU-103	4.887E-03	4.078E-02	3.544E-02	2.081E-02	FAIL ABUN
RH-106	3.099E-01	3.975E-01	3.542E-01	2.028E-01	FAIL ABUN
RU-106	3.099E-01	3.963E-01	3.542E-01	2.022E-01	FAIL ABUN
AG-108M	9.555E-03	3.572E-02	3.169E-02	1.823E-02	NOT IDENT.
AG-110M	-1.682E-02	4.556E-02	3.694E-02	2.324E-02	NOT IDENT.
IN-111	9.597E-01	1.072E+00	8.671E-01	5.467E-01	NOT IDENT.
IN-113M	-2.507E-02	4.452E-02	3.756E-02	2.272E-02	NOT IDENT.
SN-113	-2.507E-02	4.452E-02	3.756E-02	2.272E-02	NOT IDENT.
IN-114M	-1.367E-01	1.873E-01	1.372E-01	9.558E-02	NOT IDENT.
CD-115	-4.619E+00	1.110E+01	9.144E+00	5.665E+00	NOT IDENT.
SN-117M	-1.704E-02	5.218E-02	4.525E-02	2.662E-02	NOT IDENT.
SB-122	1.854E-01	2.219E+00	1.900E+00	1.132E+00	NOT IDENT.
I-123	4.101E+06	4.692E+06	0.000E+00	2.394E+06	SHORT HLIF
TE-123M	2.335E-02	2.672E-02	2.440E-02	1.363E-02	NOT IDENT.
I-124	-5.210E-01	8.027E-01	5.810E-01	4.095E-01	NOT IDENT.
SB-124	-3.645E-04	7.098E-02	5.954E-02	3.622E-02	FAIL ABUN
SB-125	2.970E-02	9.948E-02	8.853E-02	5.076E-02	FAIL ABUN
TE-125M	1.114E+00	7.518E+00	6.840E+00	3.836E+00	NOT IDENT.
I-126	-5.688E-02	2.001E-01	1.626E-01	1.021E-01	NOT IDENT.
SB-126	-1.382E-01	1.808E-01	1.323E-01	9.227E-02	FAIL ABUN
SB-127	8.922E-02	1.475E+00	1.237E+00	7.525E-01	NOT IDENT.
XE-127	-1.051E-02	4.481E-02	3.824E-02	2.286E-02	NOT IDENT.
I-131	-4.015E-02	1.085E-01	9.350E-02	5.538E-02	NOT IDENT.
TE-132	-3.606E-01	6.454E-01	5.321E-01	3.293E-01	NOT IDENT.
BA-133	4.346E-05	4.430E-02	3.458E-02	2.260E-02	FAIL ABUN
I-133	-3.336E+03	5.979E+03	0.000E+00	3.051E+03	SHORT HLIF
CS-134	1.978E-01	9.966E-02	6.141E-02	5.085E-02	FAIL ABUN
CS-135	2.474E-01	1.821E-01	1.495E-01	9.291E-02	NOT IDENT.
I-135	6.082E+15	5.159E+15	0.000E+00	2.632E+15	SHORT HLIF
CS-136	-5.697E-02	1.323E-01	1.067E-01	6.752E-02	FAIL ABUN
BA-137M	3.058E-03	4.288E-02	3.611E-02	2.188E-02	NOT IDENT.
CS-137	3.232E-03	4.533E-02	3.817E-02	2.313E-02	NOT IDENT.
CE-139	-1.485E-02	2.788E-02	2.381E-02	1.422E-02	NOT IDENT.
BA-140	-4.451E-02	2.863E-01	2.410E-01	1.460E-01	NOT IDENT.
LA-140	-5.962E-02	9.071E-02	6.710E-02	4.628E-02	FAIL ABUN
CE-141	5.089E-02	5.760E-02	5.284E-02	2.939E-02	NOT IDENT.
CE-143	4.996E+02	1.873E+02	0.000E+00	9.555E+01	SHORT HLIF
CE-144	-1.010E-01	1.805E-01	1.561E-01	9.207E-02	NOT IDENT.
PM-144	9.209E-03	3.918E-02	3.510E-02	1.999E-02	NOT IDENT.

PR-144	6.240E-01	2.655E+00	2.379E+00	1.354E+00	NOT IDENT.
PM-146	2.804E-03	4.551E-02	3.967E-02	2.322E-02	NOT IDENT.
ND-147	1.888E-01	6.126E-01	5.367E-01	3.126E-01	FAIL ABUN
PM-149	2.917E+01	7.992E+01	7.351E+01	4.078E+01	NOT IDENT.
EU-152	-7.849E-02	9.692E-02	7.434E-02	4.945E-02	NOT IDENT.
GD-153	-5.538E-03	6.642E-02	5.406E-02	3.389E-02	FAIL ABUN
EU-154	-3.808E-03	1.678E-01	1.385E-01	8.563E-02	NOT IDENT.
EU-155	1.319E-01	8.941E-02	8.479E-02	4.562E-02	FAIL ABUN
TB-160	1.390E-01	1.747E-01	1.606E-01	8.915E-02	FAIL ABUN
HO-166M	8.940E-02	7.035E-02	6.741E-02	3.589E-02	FAIL ABUN
TM-171	4.068E+00	1.483E+01	1.254E+01	7.568E+00	NOT IDENT.
LU-176	-4.474E-03	2.332E-02	2.069E-02	1.190E-02	FAIL ABUN
LU-177	1.498E+00	1.412E+00	1.014E+00	7.203E-01	FAIL ABUN
LU-177M	-1.103E-01	1.813E-01	1.516E-01	9.248E-02	FAIL ABUN
HF-181	-1.195E-02	4.530E-02	3.825E-02	2.311E-02	NOT IDENT.
W-181	-6.419E-02	1.848E-01	1.525E-01	9.431E-02	NOT IDENT.
TA-182	-2.217E-01	2.501E-01	1.889E-01	1.276E-01	NOT IDENT.
RE-183	1.170E-03	1.033E-01	9.088E-02	5.271E-02	FAIL ABUN
RE-184	8.296E-02	2.092E-01	1.821E-01	1.067E-01	NOT IDENT.
OS-185	4.306E-03	4.801E-02	4.062E-02	2.450E-02	NOT IDENT.
RE-188	8.117E-02	1.615E-01	1.456E-01	8.241E-02	NOT IDENT.
W-188	-3.401E-01	7.401E+00	5.870E+00	3.776E+00	FAIL ABUN
IR-192	-4.604E-02	3.214E-02	2.589E-02	1.640E-02	FAIL ABUN
AU-195	1.022E-01	1.923E-01	1.613E-01	9.812E-02	FAIL ABUN
TL-200	4.346E+01	4.212E+02	0.000E+00	2.149E+02	SHORT HLIF
TL-201	4.252E+00	6.426E+00	5.805E+00	3.279E+00	NOT IDENT.
TL-202	1.535E-02	7.503E-02	6.621E-02	3.828E-02	NOT IDENT.
BI-207	8.888E-02	6.277E-02	6.007E-02	3.202E-02	FAIL ABUN
TL-207	4.590E-01	6.721E-01	5.546E-01	3.429E-01	FAIL ABUN
PO-209	1.398E+00	8.412E+00	7.346E+00	4.292E+00	NOT IDENT.
BI-210	6.231E-01	5.609E-01	5.179E-01	2.862E-01	NOT IDENT.
PB-210	6.231E-01	5.609E-01	5.179E-01	2.862E-01	NOT IDENT.
PO-210	6.231E-01	5.603E-01	5.179E-01	2.859E-01	NOT IDENT.
PB-211	2.408E-01	9.490E-01	8.361E-01	4.842E-01	NOT IDENT.
BI-212	9.353E-01	4.633E-01	3.707E-01	2.364E-01	FAIL ABUN
PO-215	4.590E-01	6.721E-01	5.546E-01	3.429E-01	FAIL ABUN
RN-219	-2.212E-02	4.054E-01	3.543E-01	2.069E-01	FAIL ABUN
RN-220	1.659E+01	2.851E+01	2.546E+01	1.454E+01	NOT IDENT.
RA-223	4.590E-01	6.721E-01	5.546E-01	3.429E-01	FAIL ABUN
AC-227	-1.643E-01	3.693E-01	3.032E-01	1.884E-01	FAIL ABUN
TH-227	-1.643E-01	3.697E-01	3.032E-01	1.886E-01	FAIL ABUN
TH-229	3.358E-01	4.710E-01	4.228E-01	2.403E-01	FAIL ABUN
PA-231	3.648E-03	1.405E+00	1.269E+00	7.169E-01	FAIL ABUN
TH-231	4.590E-01	6.721E-01	5.546E-01	3.429E-01	FAIL ABUN
U-231	1.366E-01	8.564E-01	7.069E-01	4.370E-01	FAIL ABUN
PA-233	2.036E-02	6.263E-02	5.715E-02	3.196E-02	FAIL ABUN
PA-234	6.378E-02	3.357E-01	2.924E-01	1.713E-01	FAIL ABUN
PA-234M	3.891E+00	5.786E+00	5.209E+00	2.952E+00	NOT IDENT.
U-235	-9.489E-02	1.937E-01	1.674E-01	9.880E-02	FAIL ABUN
NP-236	4.946E-02	7.558E-02	6.840E-02	3.856E-02	NOT IDENT.
NP-239	1.264E-02	1.662E-01	1.500E-01	8.477E-02	FAIL ABUN
AM-241	2.461E-02	5.771E-02	5.258E-02	2.945E-02	NOT IDENT.
CM-243	-1.666E-03	7.946E-02	7.204E-02	4.054E-02	FAIL ABUN
AM-246	1.539E-01	1.905E-01	1.722E-01	9.722E-02	NOT IDENT.
CM-247	3.655E-03	3.660E-02	3.232E-02	1.867E-02	FAIL ABUN
CF-249	4.489E-02	4.242E-02	3.962E-02	2.164E-02	NOT IDENT.
CF-251	-1.146E-01	1.256E-01	1.045E-01	6.407E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	257.1653
46.50	257.1653
46.50	257.1653
48.70	407.9722
49.72	278.1129
51.35	314.0264
52.39	303.0959
52.97	300.1955
53.15	300.3449
53.44	292.9450
54.07	294.3045
56.28	334.5758
56.28	334.5778
57.37	0.0000
57.53	340.8417
57.53	340.8437
57.60	340.9043
57.98	353.2794
57.98	353.2794
59.32	361.2419
59.32	361.2419
59.40	361.3164
59.54	361.4474
59.72	334.1568
60.01	343.4788
61.10	349.6341
61.14	349.6690
61.30	356.3127
63.00	423.1334
63.29	405.1408
63.29	405.1408
63.58	405.4317
64.28	419.2310
65.12	425.3433
65.20	425.4255
65.20	425.4255
66.05	405.2487
66.72	397.9925
66.83	421.8262
66.91	421.9067
67.20	422.1997
67.20	422.1997
67.75	398.9694
67.85	400.6519
68.90	452.5095
68.90	452.5095
69.30	460.0943
69.67	453.8587
70.82	445.7500
70.82	445.7500
70.83	445.7602
72.80	431.2816
72.87	431.3481
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74.67	433.0910
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74.81	433.2239
74.97	433.3790
75.28	433.6744
75.70	434.0781
77.11	435.4173
77.11	435.4173

77.11	435.4173
77.11	435.4173
77.11	435.4173
77.11	435.4173
77.11	435.4173
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79.62	354.5602
79.80	354.6957
79.80	354.6957
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80.30	260.8696
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81.07	372.8868
81.07	372.8868
81.07	372.8868
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83.78	339.4106
83.78	339.4106
84.21	336.9700
84.90	323.7276
85.43	324.0769
86.29	324.6422
86.50	324.7791
86.54	324.8043
86.59	324.8385
86.72	324.9231
86.79	324.9663
86.94	410.4639
87.30	430.0593
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87.57	408.2240
87.88	408.4769
88.03	408.5989
88.36	408.8654
88.47	408.9557
89.95	410.1503
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92.29	297.8778
92.38	297.9301
92.38	297.9301
93.35	298.4852
94.00	298.8542
94.67	299.2314
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98.44	260.5119
98.88	256.4957
99.55	248.3446
99.55	248.3446
99.86	253.1918
100.00	253.2561
100.10	255.1873
103.18	303.9514
103.76	274.8811
105.00	234.6379
105.31	234.7661
108.00	286.4822
109.28	246.9193

111.00	273.5613
111.00	273.5613
111.76	267.1859
112.95	241.7200
115.19	269.6895
116.30	255.6573
117.00	253.0429
117.00	253.0429
117.66	261.0808
121.11	235.2106
121.62	248.1011
121.78	248.1644
122.06	253.1615
122.32	253.2656
122.32	253.2656
122.32	253.2656
122.32	253.2656
123.07	228.1126
127.23	298.5785
129.76	241.3739
131.20	266.6877
133.02	247.5359
133.54	242.7540
135.34	230.4360
136.00	219.6777
136.25	219.7583
136.48	226.8268
140.51	230.1718
140.51	0.0000
142.18	254.9071
142.65	251.0441
143.76	260.5300
144.24	228.3703
144.24	228.3703
144.24	228.3703
144.24	228.3703
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145.44	224.7077
147.16	270.9084
152.43	255.5084
152.70	232.0871
153.22	240.4361
154.21	241.7833
154.21	241.7833
154.21	241.7833
154.21	241.7833
155.03	230.7678
156.02	252.6415
158.56	244.2230
159.00	0.0000
159.00	209.3086
160.31	217.9329
161.27	246.1275
162.32	227.8261
162.64	228.9561
163.35	227.0935
163.89	235.5531
165.85	230.9474
167.43	206.3950
171.28	227.3043
171.86	235.8536
172.10	236.9731
176.55	249.8790
176.60	249.8958
181.06	228.9880
184.41	209.6852
185.71	210.0079
186.00	210.0800
190.27	207.3810
192.34	204.1190
193.63	178.6006
197.04	211.6973
198.01	207.6055
198.60	192.5943
200.40	194.0696
201.83	209.5820
202.84	206.5562
205.31	179.8670

208.36	205.0762
208.81	195.8759
209.75	180.7407
209.75	180.7407
210.97	164.5264
215.65	170.8620
216.55	161.0955
218.09	173.5139
222.10	174.2437
223.80	152.3133
226.40	144.9183
227.00	165.0848
227.08	165.0983
227.20	174.0448
228.16	179.7984
228.18	179.8017
228.18	179.8017
231.56	0.0000
235.69	199.1682
236.00	199.2312
236.00	199.2312
238.63	178.3077
238.63	178.3077
238.63	178.3077
238.63	178.3077
239.00	178.3720
240.98	178.7192
241.98	178.8928
241.98	178.8928
241.98	178.8928
244.69	149.8495
245.39	129.5024
247.94	151.4569
248.90	144.7573
249.79	147.1616
252.40	114.3616
252.85	117.8427
252.85	117.8427
254.15	0.0000
256.20	149.2017
256.20	149.2017
260.50	124.4487
260.90	133.7167
262.80	129.3314
264.65	131.8635
268.24	139.2578
268.79	149.7756
269.46	140.5709
269.46	140.5709
269.46	140.5709
269.46	140.5709
271.23	139.6313
273.65	153.9275
276.40	140.2759
277.35	143.0254
277.60	143.0578
277.60	143.0578
278.00	143.1075
278.60	123.6813
279.20	108.2794
279.53	108.3094
280.46	122.4754
281.68	132.4721
283.67	128.8171
284.30	127.1228
285.00	121.0164
285.90	117.5744
286.10	116.7105
286.10	116.7105
287.40	137.2002
288.45	0.0000
290.67	123.5587
290.80	123.5714
291.72	127.9336
293.26	0.0000
293.70	123.8773
295.21	118.3317
295.21	118.3317

295.21	118.3317
295.96	118.4067
296.50	121.3138
297.23	121.3885
298.57	121.5255
299.80	123.0791
299.80	123.0791
300.09	120.2476
300.09	120.2476
300.09	120.2476
300.09	120.2476
300.12	120.2496
301.29	121.7994
302.84	133.4332
303.76	104.8181
303.91	104.8306
304.40	106.3100
304.40	106.3100
304.84	104.1922
306.84	123.2574
308.46	133.3278
311.98	120.1578
316.51	131.4771
318.01	106.2151
319.02	97.2153
319.41	95.4270
320.08	108.2069
323.87	87.5552
323.87	87.5552
323.87	87.5552
323.87	87.5552
325.23	100.7963
328.77	128.1738
333.44	154.3623
334.20	128.7100
334.20	128.7100
334.30	128.7207
338.28	110.6671
338.28	110.6671
338.28	110.6671
338.28	110.6671
338.32	110.6708
338.32	110.6708
338.32	110.6708
340.50	84.2489
340.57	84.2531
344.27	111.1688
345.85	111.3007
350.59	0.0000
351.07	104.2839
351.92	104.3489
351.92	104.3489
351.92	104.3489
355.39	0.0000
356.01	91.2051
364.48	97.7841
366.43	90.3882
367.43	81.9727
367.94	0.0000
369.80	99.0992
374.96	103.2503
383.85	111.5156
387.95	94.6252
388.63	84.1503
391.69	104.4495
391.69	104.4495
392.90	110.2902
398.62	92.4229
400.65	82.9083
401.10	82.9333
401.81	92.6206
402.60	91.7036
404.84	92.8066
410.95	90.2683
411.60	97.1039
413.65	105.0139
414.70	106.0578
415.30	83.7114

415.76	79.8416
417.63	0.0000
418.52	90.7139
423.70	92.9735
427.08	95.1351
427.89	93.2214
432.53	91.5270
433.93	92.5929
439.47	91.9258
439.56	91.9300
439.89	91.9499
443.98	96.1475
444.90	93.2269
445.03	93.2341
445.03	93.2341
445.03	93.2341
445.03	93.2341
453.90	82.7708
463.38	72.2109
468.07	74.7119
473.00	75.6500
475.06	74.7306
475.35	77.7743
476.78	90.9805
477.59	79.8981
477.96	69.7991
482.03	82.1321
484.57	66.0057
487.03	71.1835
490.36	0.0000
492.35	70.3803
497.08	65.4551
507.63	0.0000
510.53	0.0000
510.84	70.0830
511.00	70.0892
511.85	70.1224
511.85	70.1224
513.99	72.6822
513.99	72.6822
520.41	73.5611
520.65	73.5698
527.90	72.8198
528.96	0.0000
529.64	78.0945
529.87	0.0000
531.02	68.7735
537.32	75.2783
543.00	68.1639
546.56	0.0000
549.76	62.0915
552.65	70.6170
555.20	74.9326
563.23	66.7645
563.90	71.0280
568.70	66.9510
569.32	70.1613
569.50	68.0410
569.67	66.9836
573.80	89.4987
574.00	89.5063
574.64	92.7349
578.91	66.6561
579.30	0.0000
583.14	73.8621
585.48	65.1603
591.81	69.8798
592.07	68.8125
593.00	69.9194
595.88	68.9414
600.56	74.4980
602.52	0.0000
602.71	82.1416
602.71	82.1416
603.60	74.3913
604.41	77.8821
604.70	77.8931
609.31	70.4768

609.31	70.4768
609.31	70.4768
609.31	70.4768
610.33	59.0119
612.46	62.5482
614.37	48.6924
618.01	74.0367
621.84	67.6271
621.84	67.6271
631.29	73.4060
633.02	52.6318
633.10	52.6348
634.78	55.9680
635.90	53.8016
636.97	71.4052
645.85	62.8743
646.12	58.4685
656.30	64.2818
657.75	86.5051
657.90	0.0000
661.65	69.9925
661.65	69.9925
664.57	0.0000
666.33	63.4605
666.33	63.4605
675.00	64.8234
677.61	62.6599
685.20	53.8887
692.80	54.9685
695.00	73.9642
696.49	65.8871
696.49	65.8871
697.00	58.6809
697.49	64.1097
698.33	69.5538
698.50	71.3662
699.00	65.9584
702.63	76.0163
706.10	77.9438
706.58	0.0000
706.67	76.1496
709.31	78.0488
711.68	50.8744
713.82	80.9279
717.42	60.1058
720.50	72.9492
721.93	0.0000
722.20	73.0020
722.78	66.9346
722.78	66.9346
722.89	66.9382
722.95	65.4168
723.30	65.4273
724.18	60.8854
727.18	53.3417
733.00	63.1470
735.90	62.4069
739.58	65.2590
742.81	62.5846
744.21	56.1748
747.13	59.0078
751.79	57.2728
752.31	54.5131
753.82	60.0933
755.35	67.5303
756.15	73.1059
756.87	73.1271
763.93	83.5466
765.79	54.8098
766.42	55.7534
766.84	62.2678
776.49	65.3071
778.00	55.0777
778.57	55.0892
778.89	52.2949
783.80	50.5248
785.46	54.3028
792.07	37.5469

795.84	47.0032
796.30	47.0117
798.80	56.4683
801.93	75.3828
805.60	50.0110
810.29	69.0078
810.76	61.4564
815.85	46.4184
817.79	47.4011
818.51	49.3111
819.60	48.3828
826.30	54.2112
828.27	0.0000
831.60	63.8496
831.96	59.0922
834.83	66.7888
836.80	0.0000
846.75	49.8342
848.13	39.3124
856.28	0.0000
856.80	30.4606
860.37	42.3790
867.32	43.9885
867.82	40.5624
871.10	46.4121
873.19	48.3826
874.81	49.3789
875.33	0.0000
876.40	51.3450
879.36	46.5504
880.27	52.3863
880.51	53.3605
881.50	56.2909
883.24	63.1243
884.67	50.5248
889.25	51.5805
896.60	42.9333
898.02	55.6460
899.00	59.5718
903.28	42.3822
911.07	39.2285
911.07	39.2285
911.07	39.2285
919.63	39.3447
920.93	40.3464
925.00	46.3161
925.24	48.2906
926.50	43.3823
935.52	44.5056
937.48	48.4940
944.10	40.6677
946.00	39.7012
949.00	47.6895
962.29	48.2342
964.01	56.5837
966.15	50.9614
968.20	50.9950
969.11	56.6791
969.11	56.6791
969.11	56.6791
977.42	59.1743
980.50	41.1632
983.50	75.3717
989.30	37.2538
996.32	41.3754
1001.03	40.4277
1001.68	45.4911
1004.76	58.6910
1021.30	0.0000
1024.50	0.0000
1034.80	39.8417
1036.00	47.0107
1037.82	64.4212
1038.57	64.4366
1038.76	0.0000
1045.16	50.2202
1046.59	57.4191
1048.07	51.2915

1050.47	44.1443
1050.47	44.1443
1062.04	39.1504
1063.62	30.9229
1076.63	40.3597
1077.35	40.3692
1078.86	46.5996
1085.78	41.5098
1099.22	48.9690
1112.02	49.3066
1112.84	52.3071
1115.52	41.8789
1120.29	61.1589
1120.29	61.1589
1120.29	61.1589
1120.29	61.1589
1120.51	61.1617
1121.28	69.9154
1124.00	0.0000
1129.67	66.2331
1131.51	0.0000
1147.95	0.0000
1167.94	51.0211
1173.22	66.0021
1175.09	60.7100
1177.93	63.9580
1189.05	44.9101
1204.90	65.5125
1205.75	0.0000
1213.00	63.5085
1221.42	67.9680
1230.97	63.8197
1235.34	60.6457
1236.41	0.0000
1238.25	59.6111
1246.25	55.3953
1260.41	0.0000
1271.85	48.1186
1274.45	50.3395
1274.54	50.3417
1291.56	40.6729
1298.22	0.0000
1312.09	29.4701
1325.50	36.0404
1325.50	36.0404
1332.49	31.4752
1333.61	34.2629
1360.21	31.6965
1362.66	0.0000
1365.15	15.8676
1368.21	26.1543
1368.53	0.0000
1376.25	14.9753
1384.27	19.6943
1394.10	25.3817
1395.20	30.0911
1407.95	21.6945
1434.06	11.3906
1436.60	22.7949
1457.56	0.0000
1460.81	8.1878
1489.15	9.6159
1509.49	16.4231
1596.49	18.7155
1620.62	14.8529
1678.03	0.0000
1691.02	8.0404
1691.02	8.0404
1706.46	0.0000
1750.46	0.0000
1764.49	15.7406
1764.49	15.7406
1764.49	15.7406
1764.49	15.7406
1770.23	23.4923
1771.40	12.2598
1791.20	0.0000
1808.65	5.1459

1836.01 9.3124

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246837003

Total Uranium Activity	3.9238E+00	ug/g
Total Uranium Counting Unc.	2.4154E+00	ug/g
Total Uranium Tpu	1.2324E-06	ug/g
Total Uranium Mda	1.5063E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 952641                    SAMPLE ID  : G246837003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM17            *
*   SAMPLE DATE   :  8-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 12:06:16.71    SAMPLE ALQT:  145.530 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.124E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.365E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.179E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.542E+00
```

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:08:37.36

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837004.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:06:44
Sample ID         : G246837004           Sample quantity  : 1.22410E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.28*	408	609	0.94	126.81	124	8	5.66E-02	11.9	
2	4	74.85*	386	546	1.05	149.92	143	16	5.37E-02	11.0	1.18E+00
3	4	77.14*	720	512	1.04	154.52	143	16	9.99E-02	6.5	
4	0	87.08	193	701	0.99	174.37	172	7	2.68E-02	23.7	
5	0	92.98*	889	1107	1.20	186.15	181	10	1.23E-01	8.1	
6	0	153.84	129	397	1.21	307.75	304	9	1.79E-02	29.4	
7	0	185.96*	455	556	1.42	371.93	367	11	6.32E-02	11.7	
8	0	209.49	112	319	0.88	418.95	415	7	1.56E-02	28.1	
9	2	238.74*	1660	305	1.29	477.39	472	18	2.31E-01	3.2	1.83E+00
10	2	241.77	385	346	1.71	483.46	472	18	5.35E-02	12.9	
11	0	270.60	118	297	1.87	541.06	536	9	1.64E-02	27.9	
12	0	295.30*	526	355	1.29	590.42	585	12	7.30E-02	8.5	
13	0	328.64*	71	244	1.26	657.05	653	9	9.83E-03	42.6	
14	0	338.34*	317	273	1.54	676.43	671	11	4.41E-02	11.7	
15	0	351.98*	902	319	1.51	703.68	698	14	1.25E-01	5.6	
16	0	463.19*	60	156	1.81	925.94	921	9	8.33E-03	41.3	
17	0	510.74*	177	280	2.38	1020.98	1011	20	2.46E-02	27.2	
18	0	583.25*	580	162	1.77	1165.91	1159	17	8.05E-02	6.8	
19	0	609.53*	681	190	1.84	1218.44	1212	14	9.47E-02	5.9	
20	0	661.73	525	133	1.68	1322.79	1316	13	7.29E-02	6.3	
21	0	727.38	185	82	1.37	1454.03	1447	15	2.57E-02	13.0	
22	0	795.68	49	90	1.52	1590.56	1586	10	6.77E-03	39.5	
23	0	861.09	71	69	1.56	1721.32	1717	10	9.85E-03	25.0	
24	0	911.57*	367	175	2.01	1822.25	1813	20	5.10E-02	10.5	
25	0	969.60*	173	203	1.99	1938.29	1930	15	2.40E-02	20.4	
26	0	1001.30*	87	110	1.80	2001.68	1994	18	1.21E-02	30.7	
27	0	1120.64*	167	82	2.19	2240.30	2232	17	2.32E-02	15.4	
28	0	1378.91	54	48	1.93	2756.83	2750	16	7.56E-03	33.2	
29	0	1460.86*	1772	30	2.36	2920.74	2908	22	2.46E-01	2.5	
30	0	1588.18	43	41	1.65	3175.45	3164	18	5.98E-03	37.9	
31	0	1729.56*	40	5	2.94	3458.30	3448	18	5.56E-03	23.4	
32	0	1764.71*	174	6	3.02	3528.62	3516	22	2.41E-02	9.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 14:08:39

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 8-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 12:06:44
Sample ID : G246837004 Sample quantity : 122.41 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.21 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.668E+01	2.792E+00	4.491E-01	4.114E-02	59.401
CD-109	+	88.03	*	2.176E+00	1.053E+00	1.621E+00	1.539E-01	1.342
SN-126	+	64.28		3.007E+00	8.366E-01	7.652E-01	1.111E-01	3.929
	+	86.94		8.895E-01	5.610E-01	5.623E-01	2.335E-01	1.582
	+	87.57	*	2.140E-01	1.035E-01	1.441E-01	1.360E-02	1.485
BA-137M	+	661.65	*	4.988E-01	8.190E-02	5.564E-02	5.868E-03	8.964
CS-137	+	661.65	*	5.272E-01	8.662E-02	5.882E-02	6.211E-03	8.964
RE-188	+	155.03	*	3.727E-01	2.216E-01	2.694E-01	2.515E-02	1.383
		477.96		2.052E+00	2.938E+00	4.917E+00	4.844E-01	0.417
		633.10		4.811E-01	2.597E+00	4.326E+00	4.532E-01	0.111
TL-208		277.35		-5.886E-02	3.767E-01	5.987E-01	9.872E-02	-0.098
	+	510.84		5.844E-01	3.264E-01	1.896E-01	2.471E-02	3.082
	+	583.14	*	5.372E-01	9.328E-02	5.237E-02	5.678E-03	10.259
	+	860.37		5.977E-01	3.070E-01	3.952E-01	4.605E-02	1.512
BI-211		72.87		6.195E+00	2.907E+00	4.988E+00	3.992E-01	1.242
	+	351.07	*	3.959E+00	6.370E-01	3.072E-01	3.585E-02	12.887
PB-212	+	74.81		1.795E+00	4.533E-01	5.016E-01	6.224E-02	3.578
	+	77.11		1.896E+00	2.938E-01	2.856E-01	2.388E-02	6.639
	+	87.30		9.895E-01	4.889E-01	6.679E-01	9.172E-02	1.481
	+	238.63	*	1.701E+00	2.491E-01	8.816E-02	1.165E-02	19.299
		300.09		9.185E-01	8.737E-01	1.335E+00	1.947E-01	0.688
PO-212	+	74.81		1.795E+00	4.533E-01	5.016E-01	6.224E-02	3.578
	+	77.11		1.896E+00	2.938E-01	2.856E-01	2.388E-02	6.639
	+	87.30		9.895E-01	4.889E-01	6.679E-01	9.172E-02	1.481
		115.19		-5.735E+00	3.685E+00	5.471E+00	4.532E-01	-1.048
	+	238.63	*	1.701E+00	2.491E-01	8.816E-02	1.165E-02	19.299
		300.09		9.185E-01	8.737E-01	1.335E+00	1.947E-01	0.688
BI-214	+	609.31	*	1.185E+00	1.969E-01	1.025E-01	1.192E-02	11.558
	+	1120.29		1.447E+00	4.726E-01	3.747E-01	4.140E-02	3.862
	+	1764.49		1.963E+00	3.970E-01	2.507E-01	2.089E-02	7.830
PB-214	+	74.81		3.093E+00	7.608E-01	8.643E-01	9.526E-02	3.578
	+	77.11		3.250E+00	5.612E-01	4.896E-01	5.539E-02	6.639
	+	87.30		1.695E+00	8.306E-01	1.144E+00	1.392E-01	1.481
	+	241.98		2.365E+00	6.916E-01	5.301E-01	7.290E-02	4.461

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.407E+00	3.181E-01	2.237E-01	3.331E-02	6.288
	+	351.92	*	1.377E+00	2.330E-01	1.094E-01	1.394E-02	12.591
PO-214	+	74.81		3.093E+00	7.608E-01	8.643E-01	9.526E-02	3.578
	+	77.11		3.250E+00	5.612E-01	4.896E-01	5.539E-02	6.639
	+	87.30		1.695E+00	8.306E-01	1.144E+00	1.392E-01	1.481
	+	241.98		2.365E+00	6.916E-01	5.301E-01	7.290E-02	4.461
	+	295.21		1.407E+00	3.181E-01	2.237E-01	3.331E-02	6.288
	+	351.92	*	1.377E+00	2.330E-01	1.094E-01	1.394E-02	12.591
PO-216	+	74.81		1.795E+00	4.533E-01	5.016E-01	6.224E-02	3.578
	+	77.11		1.896E+00	2.938E-01	2.856E-01	2.388E-02	6.639
	+	87.30		9.895E-01	4.889E-01	6.679E-01	9.172E-02	1.481
	+	238.63	*	1.701E+00	2.491E-01	8.816E-02	1.165E-02	19.299
		300.09		9.185E-01	8.737E-01	1.335E+00	1.947E-01	0.688
PO-218	+	74.81		3.093E+00	7.608E-01	8.643E-01	9.526E-02	3.578
	+	77.11		3.250E+00	5.612E-01	4.896E-01	5.539E-02	6.639
	+	87.30		1.695E+00	8.306E-01	1.144E+00	1.392E-01	1.481
	+	241.98		2.365E+00	6.916E-01	5.301E-01	7.290E-02	4.461
	+	295.21		1.407E+00	3.181E-01	2.237E-01	3.331E-02	6.288
	+	351.92	*	1.377E+00	2.330E-01	1.094E-01	1.394E-02	12.591
RA-224	+	240.98	*	4.484E+00	1.287E+00	1.002E+00	1.255E-01	4.474
RA-226	+	609.31	*	1.185E+00	1.969E-01	1.025E-01	1.192E-02	11.558
	+	1120.29		1.447E+00	4.726E-01	3.747E-01	4.140E-02	3.862
	+	1764.49		1.963E+00	3.970E-01	2.507E-01	2.089E-02	7.830
AC-228	+	338.32		1.545E+00	7.439E-01	3.696E-01	1.555E-01	4.180
	+	911.07	*	1.459E+00	3.616E-01	1.945E-01	2.577E-02	7.499
	+	969.11		1.207E+00	5.731E-01	4.046E-01	9.771E-02	2.983
RA-228	+	338.32		1.545E+00	7.439E-01	3.696E-01	1.555E-01	4.180
	+	911.07	*	1.459E+00	3.616E-01	1.945E-01	2.577E-02	7.499
	+	969.11		1.207E+00	5.731E-01	4.046E-01	9.771E-02	2.983
TH-228	+	74.81		1.822E+00	4.279E-01	5.091E-01	4.195E-02	3.578
	+	77.11		1.925E+00	2.982E-01	2.899E-01	2.424E-02	6.639
	+	87.30		1.004E+00	4.860E-01	6.780E-01	6.381E-02	1.481
	+	238.63	*	1.727E+00	2.529E-01	8.949E-02	1.182E-02	19.299
		300.09		9.324E-01	1.040E+00	1.355E+00	8.150E-01	0.688
TH-230	+	609.31	*	1.185E+00	1.969E-01	1.025E-01	1.192E-02	11.558
	+	1120.29		1.447E+00	4.726E-01	3.747E-01	4.140E-02	3.862
	+	1764.49		1.963E+00	3.970E-01	2.507E-01	2.089E-02	7.830
TH-232	+	338.32		1.545E+00	4.057E-01	3.696E-01	4.396E-02	4.180
	+	911.07	*	1.459E+00	3.616E-01	1.945E-01	2.577E-02	7.499
	+	969.11		1.207E+00	5.731E-01	4.046E-01	9.771E-02	2.983
TH-234	+	63.29	*	7.596E+00	2.237E+00	1.998E+00	3.477E-01	3.802
	+	92.38		6.399E+00	1.564E+00	8.640E-01	1.583E-01	7.406
U-234	+	609.31	*	1.185E+00	1.969E-01	1.025E-01	1.192E-02	11.558
	+	1120.29		1.447E+00	4.726E-01	3.747E-01	4.140E-02	3.862
	+	1764.49		1.963E+00	3.970E-01	2.507E-01	2.089E-02	7.830
NP-237	+	86.50	*	6.283E-01	3.305E-01	3.952E-01	8.947E-02	1.590
		95.87		-1.281E+00	1.110E+00	1.445E+00	3.572E-01	-0.887
U-238	+	63.29	*	7.596E+00	2.237E+00	1.998E+00	3.477E-01	3.802
	+	92.38		6.399E+00	1.188E+00	8.640E-01	7.873E-02	7.406

Sample ID : G246837004 Acquisition date : 23-FEB-2010 12:06:44

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	+	74.67	*	2.910E-01	6.826E-02	8.155E-02	6.647E-03	3.568
	+	86.72		2.356E+01	1.140E+01	1.479E+01	1.382E+00	1.593
		117.66		2.300E-01	3.816E+00	6.080E+00	5.022E-01	0.038
		142.18		-2.166E+00	1.770E+01	2.973E+01	2.625E+00	-0.073
ANH-511	+	511.00	*	1.262E-01	6.971E-02	4.097E-02	4.105E-03	3.081

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.181E-01	3.087E-01	5.165E-01	5.391E-02	0.422
NA-22		1274.54	*	8.572E-03	3.970E-02	6.671E-02	5.749E-03	0.128
NA-24		1368.53	*	-5.927E-01	3.970E-02	Half-Life too short		
AL-26		1129.67		-4.293E-01	1.777E+00	2.477E+00	2.157E-01	-0.173
		1808.65	*	-1.802E-03	2.477E-02	4.030E-02	3.296E-03	-0.045
TI-44		67.85		-1.306E-02	4.837E-02	7.063E-02	5.391E-03	-0.185
	+	78.38	*	3.499E-01	5.421E-02	7.100E-02	6.020E-03	4.928
SC-46		889.25	*	8.438E-03	3.456E-02	5.826E-02	6.521E-03	0.145
	+	1120.51		2.475E-01	7.914E-02	1.105E-01	9.767E-03	2.240
V-48		944.10		-2.619E-01	7.912E-01	1.273E+00	1.381E-01	-0.206
		983.50	*	-3.561E-02	6.528E-02	1.029E-01	1.079E-02	-0.346
		1312.09		3.031E-02	6.915E-02	1.181E-01	1.041E-02	0.257
CR-51		320.08	*	-1.389E-01	3.486E-01	5.725E-01	7.413E-02	-0.243
MN-52		744.21		2.234E-01	2.200E-01	3.777E-01	4.104E-02	0.592
		848.13		3.434E+00	6.043E+00	1.041E+01	1.159E+00	0.330
		935.52		9.297E-02	2.246E-01	3.805E-01	4.154E-02	0.244
		1246.25		-5.432E+00	6.721E+00	1.054E+01	8.911E-01	-0.515
		1333.61		-2.747E+00	4.202E+00	6.489E+00	5.787E-01	-0.423
		1434.06	*	-1.397E-01	2.072E-01	3.143E-01	2.808E-02	-0.445
MN-54		834.83	*	2.070E-02	3.403E-02	5.864E-02	6.514E-03	0.353
CO-56		846.75	*	8.352E-03	3.631E-02	6.133E-02	6.828E-03	0.136
		977.42		-1.208E+00	3.082E+00	4.308E+00	4.544E-01	-0.280
		1037.82		-4.814E-02	2.856E-01	4.609E-01	4.753E-02	-0.104
		1175.09		3.782E-01	1.897E+00	3.207E+00	2.583E-01	0.118
		1238.25		1.547E-01	8.403E-02	1.514E-01	1.312E-02	1.022
		1360.21		8.262E-01	8.685E-01	1.533E+00	1.369E-01	0.539
		1771.40		1.200E-01	2.184E-01	3.382E-01	2.810E-02	0.355
CO-57		122.06	*	-1.577E-02	2.561E-02	3.956E-02	3.262E-03	-0.399
		136.48		-1.588E-01	2.013E-01	3.309E-01	3.070E-02	-0.480
CO-58		810.76	*	-2.783E-02	3.447E-02	5.441E-02	6.025E-03	-0.511
FE-59		142.65		-3.289E-01	2.894E+00	4.685E+00	4.146E-01	-0.070
		192.34		2.207E-03	9.438E-01	1.504E+00	2.234E-01	0.001
		1099.22	*	-3.897E-02	8.040E-02	1.256E-01	1.231E-02	-0.310
		1291.56		-1.470E-01	1.112E-01	1.627E-01	1.604E-02	-0.903
CO-60		1173.22		6.831E-03	3.761E-02	6.353E-02	5.109E-03	0.108
		1332.49	*	-5.617E-03	3.292E-02	5.338E-02	4.760E-03	-0.105
ZN-65		1115.52	*	-8.123E-03	9.223E-02	1.259E-01	1.123E-02	-0.065
GE-68		1077.35	*	2.506E-01	1.121E+00	1.853E+00	1.747E-01	0.135
AS-73		53.44	*	2.773E-01	7.332E-01	1.242E+00	9.385E-02	0.223

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-74		595.88	*	-3.324E-02	8.373E-02	1.356E-01	1.406E-02	-0.245
		634.78		2.065E-01	3.254E-01	5.548E-01	5.815E-02	0.372
SE-75		66.05		-2.088E+00	4.953E+00	7.171E+00	6.841E-01	-0.291
		96.73		-4.357E-01	8.671E-01	1.214E+00	1.671E-01	-0.359
		121.11		-5.414E-02	1.378E-01	2.150E-01	2.351E-02	-0.252
		136.00		-5.848E-02	3.847E-02	6.133E-02	5.322E-03	-0.953
		198.60		1.187E-01	1.860E+00	2.992E+00	3.497E-01	0.040
		264.65	*	-4.360E-02	5.070E-02	6.679E-02	8.989E-03	-0.653
		279.53		1.299E-01	1.089E-01	1.808E-01	2.566E-02	0.718
		303.91		-1.698E+00	2.136E+00	3.455E+00	5.265E-01	-0.492
		400.65		1.712E-01	2.308E-01	3.916E-01	4.584E-02	0.437
BR-77	+	87.88		4.552E+02	2.202E+02	3.200E+02	3.033E+01	1.422
		200.40		-9.984E+00	1.592E+02	2.611E+02	2.871E+01	-0.038
	+	239.00		2.644E+02	3.686E+01	3.412E+01	4.245E+00	7.750
		249.79		-3.980E+01	6.364E+01	9.967E+01	1.281E+01	-0.399
		281.68		-3.471E+01	8.835E+01	1.385E+02	1.930E+01	-0.251
		297.23		2.997E+02	8.073E+01	1.201E+02	1.614E+01	2.496
		303.76		-1.412E+02	1.759E+02	2.849E+02	3.768E+01	-0.495
		439.47		4.660E+00	1.403E+02	2.289E+02	2.203E+01	0.020
		484.57		-2.892E+02	2.199E+02	3.252E+02	3.215E+01	-0.889
		520.65	*	-4.755E+00	9.381E+00	1.454E+01	1.464E+00	-0.327
		574.64		-7.792E+01	1.925E+02	2.975E+02	3.061E+01	-0.262
		578.91		2.722E+01	8.876E+01	1.299E+02	1.339E+01	0.209
		585.48		1.837E+03	2.966E+02	4.530E+02	4.679E+01	4.056
		755.35		1.564E+02	1.449E+02	2.497E+02	2.722E+01	0.626
		817.79		4.369E+00	1.140E+02	1.911E+02	2.116E+01	0.023
SR-82		698.33		-1.126E+00	3.287E+01	5.358E+01	5.733E+00	-0.021
		776.49	*	-1.965E-01	3.669E-01	5.717E-01	6.270E-02	-0.344
		1395.20		-9.730E+00	1.013E+01	1.501E+01	1.342E+00	-0.648
RB-83		520.41	*	-2.989E-02	6.415E-02	9.974E-02	1.004E-02	-0.300
		529.64		-5.092E-02	9.562E-02	1.554E-01	1.570E-02	-0.328
		552.65		6.120E-02	1.716E-01	2.920E-01	2.980E-02	0.210
RB-84		881.50	*	-9.768E-03	5.860E-02	9.610E-02	1.075E-02	-0.102
KR-85		513.99	*	2.886E+01	8.900E+00	1.421E+01	1.426E+00	2.031
SR-85		513.99	*	1.478E-01	4.558E-02	7.278E-02	7.303E-03	2.031
RB-86		1076.63	*	1.310E-01	7.132E-01	1.176E+00	1.110E-01	0.111
Y-88		898.02		-2.747E-02	3.639E-02	5.689E-02	6.391E-03	-0.483
		1836.01	*	-1.411E-03	3.058E-02	4.990E-02	4.034E-03	-0.028
ZR-88		392.90	*	7.459E-03	2.857E-02	4.757E-02	4.429E-03	0.157
Y-91		1204.90	*	-9.818E+00	1.682E+01	2.535E+01	2.084E+00	-0.387
NB-94		702.63	*	4.074E-03	3.226E-02	5.304E-02	5.684E-03	0.077
		871.10		3.379E-03	3.079E-02	5.154E-02	5.758E-03	0.066
NB-95		765.79	*	1.043E-01	4.348E-02	7.695E-02	8.415E-03	1.356
NB-95M		235.69	*	1.785E-01	1.408E-01	2.098E-01	2.773E-02	0.851
ZR-95		724.18		1.157E-01	9.871E-02	1.501E-01	1.711E-02	0.771
		756.15	*	8.675E-02	6.386E-02	1.113E-01	1.292E-02	0.779
NB-97		657.90	*	2.188E-01	6.386E-02	Half-Life too short		
		1024.50		-1.857E+00	6.386E-02	Half-Life too short		
ZR-97		254.15		2.032E+00	6.386E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		355.39		1.387E+00	6.386E-02	Half-Life too short		
		507.63	*	6.760E+00	6.386E-02	Half-Life too short		
		602.52		3.314E+00	6.386E-02	Half-Life too short		
		1021.30		2.307E+00	6.386E-02	Half-Life too short		
		1147.95		-3.736E+00	6.386E-02	Half-Life too short		
		1362.66		-4.676E-01	6.386E-02	Half-Life too short		
		1750.46		-2.176E+00	6.386E-02	Half-Life too short		
MO-99		140.51		-2.510E+01	2.717E+01	4.224E+01	1.172E+01	-0.594
		181.06		-7.021E+00	1.872E+01	2.669E+01	5.110E+00	-0.263
		366.43		4.366E+01	7.596E+01	1.289E+02	1.367E+01	0.339
		739.58	*	-4.990E+00	1.086E+01	1.708E+01	2.827E+00	-0.292
		778.00		-4.088E+01	3.317E+01	4.886E+01	5.361E+00	-0.837
TC-99M		140.51	*	-2.752E+10	3.317E+01	Half-Life too short		
RH-101		127.23		1.734E-03	3.354E-02	5.310E-02	4.438E-03	0.033
		198.01	*	1.324E-02	3.392E-02	5.512E-02	6.013E-03	0.240
		325.23		5.362E-02	2.396E-01	3.527E-01	4.384E-02	0.152
RH-102		418.52		-1.050E-01	2.697E-01	4.318E-01	4.098E-02	-0.243
		475.06	*	-2.624E-02	2.814E-02	4.289E-02	4.218E-03	-0.612
		631.29		8.026E-03	5.089E-02	8.467E-02	8.866E-03	0.095
		697.49		1.788E-02	7.233E-02	1.198E-01	1.281E-02	0.149
		766.84		2.556E-01	1.129E-01	1.986E-01	2.172E-02	1.287
		1046.59		-2.454E-03	1.100E-01	1.764E-01	1.730E-02	-0.014
		1112.84		-1.013E-01	2.288E-01	2.993E-01	2.679E-02	-0.338
RU-103		497.08	*	1.905E-02	3.772E-02	6.234E-02	9.356E-03	0.306
	+	610.33		1.277E+01	2.719E+00	2.592E+00	4.582E-01	4.925
RH-106	+	511.85		6.303E-01	3.481E-01	4.081E-01	4.091E-02	1.545
		621.84	*	-3.017E-02	2.853E-01	4.681E-01	6.835E-02	-0.064
		1050.47		-1.099E+00	2.163E+00	3.397E+00	3.316E-01	-0.323
RU-106	+	511.85		6.303E-01	3.481E-01	4.081E-01	4.091E-02	1.545
		621.84	*	-3.017E-02	2.853E-01	4.681E-01	4.889E-02	-0.064
		1050.47		-1.099E+00	2.163E+00	3.397E+00	3.316E-01	-0.323
AG-108M		433.93	*	-4.807E-03	3.107E-02	5.022E-02	4.972E-03	-0.096
		614.37		1.824E-02	3.910E-02	5.765E-02	6.171E-03	0.316
		722.95		4.300E-03	4.343E-02	6.108E-02	6.758E-03	0.070
AG-110M		657.75	*	7.802E-02	3.961E-02	6.309E-02	6.780E-03	1.237
		677.61		1.952E-01	2.659E-01	4.545E-01	4.914E-02	0.430
		706.67		-2.130E-02	1.969E-01	3.193E-01	3.487E-02	-0.067
		763.93		-8.510E-02	1.674E-01	2.627E-01	2.922E-02	-0.324
		884.67		-8.453E-03	4.241E-02	6.937E-02	7.911E-03	-0.122
		937.48		2.095E-02	9.845E-02	1.648E-01	1.837E-02	0.127
		1384.27		3.128E-03	1.708E-01	2.384E-01	2.187E-02	0.013
IN-111		171.28		-4.143E-01	9.425E-01	1.542E+00	1.539E-01	-0.269
		245.39	*	7.366E-01	1.080E+00	1.585E+00	2.010E-01	0.465
IN-113M		391.69	*	5.082E-02	4.202E-02	7.262E-02	6.935E-03	0.700
SN-113		391.69	*	5.082E-02	4.202E-02	7.262E-02	6.935E-03	0.700
IN-114M		190.27	*	-5.657E-02	1.981E-01	2.828E-01	3.006E-02	-0.200
CD-115		260.90		6.573E+01	1.247E+02	2.048E+02	2.721E+01	0.321
		492.35		-1.562E+01	3.345E+01	5.237E+01	5.199E+00	-0.298
		527.90	*	7.198E-01	9.565E+00	1.609E+01	1.625E+00	0.045

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-117M		156.02		8.261E-01	2.358E+00	3.537E+00	3.316E-01	0.234
		158.56	*	-1.615E-04	5.970E-02	8.673E-02	8.225E-03	-0.002
SB-122		563.90	*	-8.970E-02	1.777E+00	2.953E+00	3.026E-01	-0.030
		692.80		-1.225E+01	3.716E+01	5.943E+01	6.346E+00	-0.206
I-123		159.00	*	-3.575E-01	3.716E+01	Half-Life too short		
		528.96		-1.518E+01	3.716E+01	Half-Life too short		
TE-123M		159.00	*	-2.035E-03	3.164E-02	4.584E-02	4.378E-03	-0.044
I-124		602.71	*	2.148E-01	6.947E-01	1.013E+00	1.052E-01	0.212
		722.78		5.277E-02	4.433E+00	6.186E+00	6.676E-01	0.009
		1325.50		2.011E+01	2.956E+01	5.145E+01	4.569E+00	0.391
		1376.25		7.430E+01	3.394E+01	5.776E+01	5.163E+00	1.286
		1509.49		2.032E+01	1.477E+01	2.688E+01	2.389E+00	0.756
		1691.02		4.756E-01	2.979E+00	5.039E+00	4.309E-01	0.094
SB-124		602.71		1.270E-02	4.108E-02	5.989E-02	6.221E-03	0.212
		645.85		2.927E-02	4.266E-01	7.051E-01	7.712E-02	0.042
		709.31		5.885E-01	2.600E+00	4.296E+00	4.615E-01	0.137
		713.82		-8.023E-01	1.536E+00	2.417E+00	3.299E-01	-0.332
		722.78		4.524E-03	3.800E-01	5.303E-01	5.802E-02	0.009
	+	968.20		1.241E+01	5.242E+00	6.728E+00	7.154E-01	1.844
		1045.16		-2.966E-01	2.279E+00	3.687E+00	3.622E-01	-0.080
		1325.50		1.841E+00	2.707E+00	4.710E+00	4.183E-01	0.391
		1368.21		-1.729E+00	1.647E+00	2.291E+00	3.134E-01	-0.755
		1436.60		1.323E+00	3.120E+00	5.327E+00	4.760E-01	0.248
		1691.02	*	9.616E-03	6.023E-02	1.019E-01	9.063E-03	0.094
SB-125		427.89	*	2.866E-02	8.363E-02	1.389E-01	1.348E-02	0.206
	+	463.38		3.922E-01	3.263E-01	4.822E-01	5.000E-02	0.813
		600.56		1.458E-01	1.689E-01	2.856E-01	3.117E-02	0.510
		635.90		1.018E-01	2.507E-01	4.224E-01	4.673E-02	0.241
TE-125M		109.28	*	-9.810E+00	9.779E+00	1.472E+01	1.490E+00	-0.666
I-126		388.63		-4.644E-02	1.937E-01	3.151E-01	2.983E-02	-0.147
		666.33	*	1.525E-01	1.875E-01	2.813E-01	2.972E-02	0.542
		753.82		9.369E-01	1.327E+00	2.244E+00	2.446E-01	0.417
SB-126		223.80		-1.966E+00	3.936E+00	6.278E+00	7.449E-01	-0.313
		278.60		3.322E+00	2.460E+00	4.094E+00	5.723E-01	0.811
	+	296.50		1.392E+01	3.024E+00	3.461E+00	4.663E-01	4.022
		414.70		-2.292E-02	7.163E-02	1.153E-01	1.091E-02	-0.199
		415.30		1.492E+00	5.891E+00	9.760E+00	9.241E-01	0.153
		555.20		9.329E-01	3.497E+00	5.919E+00	6.046E-01	0.158
		573.80		-1.889E-01	9.456E-01	1.521E+00	1.564E-01	-0.124
		593.00		1.254E-01	8.632E-01	1.379E+00	1.428E-01	0.091
		656.30		1.730E+00	3.548E+00	5.205E+00	5.483E-01	0.332
		666.33		6.371E-02	7.831E-02	1.175E-01	1.241E-02	0.542
		675.00		-2.372E-01	1.713E+00	2.782E+00	2.950E-01	-0.085
		695.00		4.267E-02	7.044E-02	1.190E-01	1.272E-02	0.359
		697.00		4.270E-02	2.506E-01	4.134E-01	4.421E-02	0.103
		720.50	*	5.683E-03	1.485E-01	2.078E-01	2.241E-02	0.027
		856.80		-1.951E-01	4.781E-01	6.531E-01	7.281E-02	-0.299
		989.30		3.550E-01	1.103E+00	1.852E+00	1.932E-01	0.192
		1034.80		-2.417E-01	7.858E+00	1.281E+01	1.274E+00	-0.019

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1213.00		2.955E+00	4.251E+00	7.352E+00	6.079E-01	0.402
SB-127		61.10		3.132E+01	5.647E+01	8.582E+01	8.627E+00	0.365
		252.40		3.304E+00	4.482E+00	7.082E+00	3.054E+00	0.467
		290.80		9.166E+00	2.109E+01	3.173E+01	4.874E+00	0.289
		411.60		-2.586E+00	1.167E+01	1.889E+01	3.054E+00	-0.137
		444.90		-3.808E+00	9.716E+00	1.547E+01	2.048E+00	-0.246
		473.00		-3.899E-01	1.540E+00	2.453E+00	3.355E-01	-0.159
		543.00		-9.076E-02	1.423E+01	2.378E+01	3.649E+00	-0.004
		603.60		-4.946E-01	1.229E+01	1.744E+01	2.400E+00	-0.028
		685.20	*	-1.412E-02	1.128E+00	1.845E+00	2.390E-01	-0.008
		698.50		-9.228E-02	1.441E+01	2.353E+01	4.005E+00	-0.004
		722.20		-1.332E+00	3.012E+01	4.181E+01	5.386E+00	-0.032
		783.80		3.787E+00	3.447E+00	5.870E+00	8.298E-01	0.645
XE-127		57.60		1.088E+00	5.599E+00	9.383E+00	6.740E-01	0.116
		145.22		7.246E-02	7.480E-01	1.218E+00	1.089E-01	0.059
		172.10		-7.087E-02	1.160E-01	1.885E-01	1.886E-02	-0.376
		202.84	*	-2.484E-03	4.711E-02	7.723E-02	8.561E-03	-0.032
		374.96		2.020E-02	1.855E-01	3.001E-01	3.055E-02	0.067
I-131		80.18		-5.408E+00	4.678E+00	6.450E+00	5.614E-01	-0.838
		284.30		-1.615E-01	1.465E+00	2.328E+00	3.291E-01	-0.069
		364.48	*	-6.925E-02	1.055E-01	1.685E-01	1.867E-02	-0.411
		636.97		8.899E-02	1.407E+00	2.327E+00	2.533E-01	0.038
		722.89		4.944E-01	7.233E+00	1.014E+01	1.099E+00	0.049
TE-132		49.72		-1.356E+01	1.671E+01	2.716E+01	2.810E+00	-0.499
		111.76		4.757E+01	3.031E+01	5.035E+01	5.336E+00	0.945
		116.30		-4.621E+01	2.801E+01	4.104E+01	4.330E+00	-1.126
		228.16	*	-1.935E-01	6.532E-01	1.049E+00	1.867E-01	-0.184
BA-133		53.15		9.697E-01	3.192E+00	5.395E+00	4.094E-01	0.180
		79.62		-1.604E+00	1.339E+00	1.821E+00	2.770E-01	-0.881
		81.00		-8.527E-02	1.025E-01	1.428E-01	2.276E-02	-0.597
		276.40		2.029E-02	3.840E-01	5.945E-01	1.076E-01	0.034
		302.84		2.029E-01	1.491E-01	2.510E-01	4.186E-02	0.808
		356.01	*	-1.125E-02	4.605E-02	6.515E-02	9.735E-03	-0.173
		383.85		2.906E-01	2.846E-01	4.871E-01	6.518E-02	0.597
I-133	+	510.53		1.174E+00	2.846E-01	Half-Life too short		
		529.87	*	-3.243E-03	2.846E-01	Half-Life too short		
		706.58		-3.124E-02	2.846E-01	Half-Life too short		
		856.28		-2.279E-01	2.846E-01	Half-Life too short		
		875.33		2.447E-02	2.846E-01	Half-Life too short		
		1236.41		1.419E+00	2.846E-01	Half-Life too short		
		1298.22		1.500E-01	2.846E-01	Half-Life too short		
CS-134		475.35		-1.346E+00	1.834E+00	2.834E+00	2.787E-01	-0.475
		563.23		2.657E-02	3.132E-01	5.243E-01	5.409E-02	0.051
		569.32		-8.937E-02	1.857E-01	2.940E-01	3.048E-02	-0.304
		604.70		-2.112E-02	3.655E-02	4.960E-02	5.164E-03	-0.426
	+	795.84	*	6.330E-02	5.048E-02	7.918E-02	8.765E-03	0.799
		801.93		-2.966E-01	4.598E-01	5.928E-01	6.564E-02	-0.500
		1038.57		-1.906E+00	3.584E+00	5.621E+00	5.565E-01	-0.339
		1167.94		-1.930E+00	2.214E+00	3.472E+00	2.821E-01	-0.556

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		1365.15		-3.601E-01	1.080E+00	1.726E+00	1.607E-01	-0.209
CS-135		268.24	*	3.561E-01	1.811E-01	2.722E-01	3.937E-02	1.308
I-135		288.45		-1.348E+10	1.811E-01	Half-Life too short		
		417.63		4.111E+09	1.811E-01	Half-Life too short		
		546.56		-3.105E+09	1.811E-01	Half-Life too short		
		836.80		1.106E+10	1.811E-01	Half-Life too short		
		1038.76		-7.951E+09	1.811E-01	Half-Life too short		
		1124.00		7.920E+10	1.811E-01	Half-Life too short		
		1131.51		1.653E+09	1.811E-01	Half-Life too short		
		1260.41	*	-2.013E+09	1.811E-01	Half-Life too short		
		1457.56		6.757E+11	1.811E-01	Half-Life too short		
		1678.03		-8.764E+08	1.811E-01	Half-Life too short		
		1706.46		1.541E+10	1.811E-01	Half-Life too short		
		1791.20		2.601E+09	1.811E-01	Half-Life too short		
CS-136		66.91		-6.089E-01	8.190E-01	1.163E+00	1.730E-01	-0.524
	+	86.29		2.776E+00	1.369E+00	1.888E+00	2.514E-01	1.470
	+	153.22		1.424E+00	8.491E-01	1.104E+00	1.127E-01	1.290
		163.89		8.801E-01	1.051E+00	1.795E+00	1.911E-01	0.490
		176.55		2.161E-01	3.754E-01	6.189E-01	6.550E-02	0.349
		273.65		-4.073E-01	5.260E-01	6.969E-01	9.859E-02	-0.584
		340.57		5.590E-01	1.615E-01	2.529E-01	3.030E-02	2.210
		818.51		2.257E-02	6.456E-02	1.103E-01	1.222E-02	0.205
		1048.07	*	-3.475E-02	1.004E-01	1.568E-01	1.585E-02	-0.222
		1235.34		1.019E+00	5.524E-01	9.867E-01	1.153E-01	1.032
CE-139		165.85	*	-7.579E-03	2.944E-02	4.866E-02	4.772E-03	-0.156
BA-140		162.64		6.780E-01	7.357E-01	1.260E+00	1.274E-01	0.538
		304.84		-1.783E+00	1.394E+00	2.023E+00	6.018E-01	-0.882
		423.70		-1.144E-01	1.750E+00	2.849E+00	9.307E-01	-0.040
		537.32	*	-5.718E-02	2.314E-01	3.806E-01	1.278E-01	-0.150
LA-140	+	328.77		4.257E-01	3.669E-01	5.092E-01	6.433E-02	0.836
		432.53		-3.820E-01	1.911E+00	3.082E+00	3.070E-01	-0.124
		487.03		1.078E-01	1.260E-01	2.125E-01	2.203E-02	0.507
		751.79		-7.270E-01	1.589E+00	2.496E+00	2.904E-01	-0.291
		815.85		-2.551E-01	2.792E-01	4.355E-01	5.165E-02	-0.586
		867.82		3.025E-02	1.480E+00	2.109E+00	2.431E-01	0.014
		919.63		-2.678E+00	3.070E+00	3.922E+00	4.978E-01	-0.683
		925.24		5.651E-01	1.026E+00	1.754E+00	2.005E-01	0.322
		1596.49	*	-2.717E-04	8.160E-02	1.187E-01	1.041E-02	-0.002
CE-141		145.44	*	4.346E-04	6.779E-02	1.101E-01	1.002E-02	0.004
CE-143		57.37		5.804E-05	6.779E-02	Half-Life too short		
		231.56		2.164E-04	6.779E-02	Half-Life too short		
		293.26	*	8.641E-04	6.779E-02	Half-Life too short		
	+	350.59		2.966E-02	6.779E-02	Half-Life too short		
		490.36		4.739E-04	6.779E-02	Half-Life too short		
		664.57		1.104E-02	6.779E-02	Half-Life too short		
		721.93		-2.252E-05	6.779E-02	Half-Life too short		
CE-144		80.11		-2.583E+00	2.172E+00	2.990E+00	2.585E-01	-0.864
		133.54	*	1.364E-04	1.964E-01	3.325E-01	5.162E-02	0.000
PM-144		476.78		2.628E-02	6.438E-02	1.063E-01	1.122E-02	0.247

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		618.01		-2.570E-03	3.009E-02	4.715E-02	5.012E-03	-0.055
		696.49	*	2.294E-02	3.152E-02	5.354E-02	5.725E-03	0.428
		778.57		-1.872E+00	2.299E+00	3.510E+00	3.852E-01	-0.534
PR-144		696.49	*	1.554E+00	2.136E+00	3.628E+00	3.879E-01	0.428
		1489.15		-1.236E+01	1.134E+01	1.617E+01	1.440E+00	-0.764
PM-146		453.90	*	1.633E-03	4.140E-02	6.735E-02	7.826E-03	0.024
		633.02		6.805E-02	1.302E+00	2.153E+00	8.147E-01	0.032
		735.90		6.399E-02	1.492E-01	2.299E-01	6.746E-02	0.278
		747.13		-1.365E-02	8.699E-02	1.397E-01	2.169E-02	-0.098
ND-147		91.11		1.769E+00	4.984E-01	6.224E-01	6.150E-02	2.843
		319.41		-5.187E-02	3.065E+00	5.125E+00	6.488E-01	-0.010
		439.89		1.189E+00	5.757E+00	9.468E+00	9.117E-01	0.126
		531.02	*	9.622E-02	5.003E-01	8.461E-01	1.342E-01	0.114
PM-149		285.90	*	1.552E+01	8.552E+01	1.376E+02	2.603E+01	0.113
EU-152		121.78		-5.465E-02	7.495E-02	1.151E-01	1.105E-02	-0.475
		244.69		5.477E-01	3.560E-01	5.384E-01	6.817E-02	1.017
		344.27	*	-4.211E-02	1.077E-01	1.515E-01	1.821E-02	-0.278
		443.98		7.962E-03	9.440E-01	1.536E+00	1.483E-01	0.005
		778.89		-8.065E-02	2.607E-01	4.128E-01	4.530E-02	-0.195
		867.32		5.292E-01	8.464E-01	1.274E+00	1.423E-01	0.415
		964.01		7.229E-01	3.265E-01	5.274E-01	5.628E-02	1.371
		1085.78		-1.926E-01	3.597E-01	5.607E-01	5.224E-02	-0.343
		1112.02		-3.659E-02	3.115E-01	4.236E-01	3.796E-02	-0.086
		1407.95		2.427E-01	1.794E-01	3.243E-01	2.900E-02	0.748
GD-153		69.67		1.064E+00	1.702E+00	2.567E+00	1.993E-01	0.414
		83.37		2.929E+01	1.595E+01	2.427E+01	2.179E+00	1.207
		97.43	*	9.299E-03	9.011E-02	1.289E-01	1.133E-02	0.072
		103.18		-9.340E-02	1.038E-01	1.605E-01	1.372E-02	-0.582
EU-154		123.07		-4.414E-02	5.296E-02	8.077E-02	8.960E-03	-0.546
		247.94		-9.849E-02	3.789E-01	5.573E-01	8.282E-02	-0.177
		591.81		-7.645E-02	6.396E-01	9.035E-01	1.175E-01	-0.085
		723.30		1.131E-01	1.786E-01	2.626E-01	3.028E-02	0.431
		756.87		2.562E-01	7.019E-01	1.163E+00	1.595E-01	0.220
		873.19		7.853E-02	2.645E-01	4.478E-01	6.341E-02	0.175
		996.32		-6.887E-02	3.707E-01	5.073E-01	9.472E-02	-0.136
		1004.76		3.173E-01	2.344E-01	3.650E-01	4.713E-02	0.869
		1274.45	*	2.320E-02	1.108E-01	1.862E-01	2.104E-02	0.125
EU-155		48.70		-5.925E-01	2.144E+00	3.569E+00	2.906E-01	-0.166
		60.01		3.940E+00	4.996E+00	7.679E+00	5.453E-01	0.513
	+	86.54		2.577E-01	1.247E-01	1.766E-01	1.661E-02	1.459
		105.31	*	2.368E-01	1.069E-01	1.818E-01	1.561E-02	1.302
TB-160	+	86.79		6.876E-01	3.327E-01	4.725E-01	4.419E-02	1.455
		197.04		2.282E-01	5.729E-01	9.313E-01	1.013E-01	0.245
		215.65		-4.692E-01	7.410E-01	1.179E+00	1.363E-01	-0.398
		298.57		1.121E-01	1.248E-01	1.903E-01	2.551E-02	0.589
		879.36	*	-6.561E-02	1.190E-01	1.894E-01	2.118E-02	-0.346
		962.29		6.968E-01	5.745E-01	8.839E-01	9.446E-02	0.788
		966.15		1.482E+00	3.088E-01	5.011E-01	5.338E-02	2.957
		1177.93		-5.877E-02	3.077E-01	5.065E-01	4.087E-02	-0.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1271.85		9.381E-02	6.253E-01	1.047E+00	8.995E-02	0.090
HO-166M		80.57		-2.608E-01	2.796E-01	3.901E-01	3.389E-02	-0.669
		184.41		1.940E-01	4.939E-02	7.609E-02	7.933E-03	2.550
		280.46		-2.935E-02	8.624E-02	1.357E-01	1.895E-02	-0.216
		410.95		5.831E-02	2.326E-01	3.855E-01	3.638E-02	0.151
		711.68	*	1.963E-03	5.568E-02	9.098E-02	9.781E-03	0.022
		752.31		-6.516E-02	2.556E-01	4.075E-01	4.439E-02	-0.160
		810.29		-2.574E-02	5.097E-02	8.233E-02	9.102E-03	-0.313
TM-171		51.35		-1.629E+01	2.697E+01	4.419E+01	3.447E+00	-0.369
		52.39		-7.182E+00	1.412E+01	2.321E+01	1.782E+00	-0.309
		59.40		1.623E+01	2.685E+01	4.101E+01	2.899E+00	0.396
		66.72	*	-2.670E+01	2.972E+01	4.209E+01	3.180E+00	-0.634
LU-176	+	88.36		5.075E-01	2.456E-01	3.637E-01	3.440E-02	1.395
		201.83		-2.994E-02	2.935E-02	4.618E-02	5.102E-03	-0.648
		306.84	*	-2.812E-02	2.481E-02	3.873E-02	5.081E-03	-0.726
		401.10		4.430E+00	6.009E+00	1.021E+01	9.564E-01	0.434
LU-177		112.95		2.525E+00	1.669E+00	2.782E+00	2.313E-01	0.907
	+	208.36	*	2.059E+00	1.180E+00	1.873E+00	2.115E-01	1.099
LU-177M		52.97		2.890E-01	1.453E+00	2.448E+00	1.862E-01	0.118
		54.07		9.890E-02	7.723E-01	1.296E+00	9.710E-02	0.076
		61.30		1.554E+00	1.510E+00	2.334E+00	1.679E-01	0.666
		121.62		-2.636E-01	3.844E-01	5.921E-01	4.877E-02	-0.445
		147.16		-3.994E-01	6.622E-01	1.092E+00	9.845E-02	-0.366
		171.86		-2.982E-01	4.679E-01	7.593E-01	7.593E-02	-0.393
		218.09		4.694E-01	8.335E-01	1.387E+00	1.616E-01	0.338
		268.79		2.458E+00	9.378E-01	1.423E+00	1.934E-01	1.728
		319.02		7.404E-02	2.397E-01	4.062E-01	5.147E-02	0.182
		367.43		5.118E-01	8.351E-01	1.419E+00	1.498E-01	0.361
		413.65	*	-1.211E-01	1.682E-01	2.647E-01	2.503E-02	-0.457
HF-181		56.28		-2.241E-01	8.739E-01	1.445E+00	1.053E-01	-0.155
		57.53		9.194E-02	4.693E-01	7.867E-01	5.654E-02	0.117
		65.20		4.591E-01	9.777E-01	1.469E+00	1.095E-01	0.313
		133.02		-1.150E-02	6.403E-02	1.078E-01	9.191E-03	-0.107
		136.25		-6.505E-01	4.490E-01	7.183E-01	6.196E-02	-0.906
		345.85		-2.397E-01	2.168E-01	2.882E-01	3.333E-02	-0.832
		482.03	*	-2.215E-04	4.018E-02	6.485E-02	6.402E-03	-0.003
W-181		56.28		-8.776E-02	3.425E-01	5.664E-01	4.125E-02	-0.155
		57.53		3.576E-02	1.841E-01	3.085E-01	2.217E-02	0.116
		65.20	*	1.786E-01	3.804E-01	5.716E-01	4.261E-02	0.313
TA-182		67.75		-5.357E-02	1.171E-01	1.691E-01	1.290E-02	-0.317
		100.10		1.611E-01	1.765E-01	2.922E-01	2.532E-02	0.551
	+	152.43		7.347E-01	4.369E-01	5.530E-01	5.102E-02	1.329
		222.10		-6.785E-02	3.388E-01	5.481E-01	6.468E-02	-0.124
	+	1001.68		5.420E+00	3.373E+00	3.845E+00	3.963E-01	1.409
	+	1121.28		6.838E-01	2.186E-01	3.018E-01	2.665E-02	2.266
		1189.05		-3.824E-02	2.612E-01	4.310E-01	3.505E-02	-0.089
		1221.42	*	-7.352E-02	1.812E-01	2.935E-01	2.441E-02	-0.250
		1230.97		-8.430E-01	4.657E-01	6.815E-01	5.703E-02	-1.237
RE-183		57.98		-2.555E-02	1.864E-01	3.091E-01	2.212E-02	-0.083

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		59.32		6.083E-02	1.101E-01	1.680E-01	1.188E-02	0.362
		67.20		-9.834E-03	2.062E-01	3.031E-01	2.300E-02	-0.032
		162.32	*	8.163E-02	1.081E-01	1.845E-01	1.780E-02	0.443
	+	208.81		1.871E+00	1.072E+00	1.700E+00	1.922E-01	1.100
		291.72		6.616E-01	9.647E-01	1.467E+00	1.999E-01	0.451
RE-184		57.98		-9.422E-02	6.875E-01	1.140E+00	8.156E-02	-0.083
		59.32		2.241E-01	4.058E-01	6.188E-01	4.377E-02	0.362
		67.20		-3.625E-02	7.601E-01	1.117E+00	8.479E-02	-0.032
		161.27		-3.192E-01	3.539E-01	5.715E-01	5.487E-02	-0.559
		216.55		-1.538E-01	2.631E-01	4.193E-01	4.861E-02	-0.367
		252.85	*	1.145E-01	2.340E-01	3.846E-01	4.990E-02	0.298
		318.01		2.055E-01	4.169E-01	7.111E-01	9.038E-02	0.289
		792.07		-5.273E-01	1.167E+00	1.541E+00	1.696E-01	-0.342
		903.28		9.520E-01	1.004E+00	1.546E+00	1.727E-01	0.616
		920.93		-3.955E-01	4.996E-01	6.458E-01	7.126E-02	-0.612
OS-185		59.72		2.297E-01	2.975E-01	4.570E-01	3.236E-02	0.503
		61.14		9.695E-02	1.638E-01	2.495E-01	1.792E-02	0.389
		69.30		-2.521E-02	3.096E-01	4.550E-01	3.519E-02	-0.055
		592.07		1.833E-01	2.472E+00	3.696E+00	3.826E-01	0.050
		646.12	*	-1.169E-03	3.698E-02	6.072E-02	6.382E-03	-0.019
		717.42		1.867E-01	8.135E-01	1.344E+00	1.448E-01	0.139
		874.81		1.153E-01	5.115E-01	8.624E-01	9.638E-02	0.134
		880.27		-2.675E-01	6.604E-01	1.064E+00	1.190E-01	-0.251
W-188	+	63.58		3.049E+02	7.581E+01	1.046E+02	7.684E+00	2.916
		227.08		-6.080E+00	1.235E+01	1.967E+01	2.358E+00	-0.309
		290.67	*	3.390E+00	7.449E+00	1.122E+01	1.533E+00	0.302
IR-192	+	295.96		1.072E+00	2.331E-01	2.696E-01	3.648E-02	3.975
		308.46		-5.361E-02	9.207E-02	1.503E-01	1.968E-02	-0.357
		316.51	*	-2.802E-03	3.207E-02	5.350E-02	6.838E-03	-0.052
		468.07		2.610E-02	6.764E-02	9.743E-02	1.008E-02	0.268
		604.41		-1.863E-01	4.866E-01	6.711E-01	9.566E-02	-0.278
		612.46		6.172E+00	1.174E+00	1.795E+00	2.065E-01	3.437
AU-195		65.12		1.335E-01	1.762E-01	2.675E-01	1.992E-02	0.499
		66.83		-7.968E-02	9.838E-02	1.399E-01	1.058E-02	-0.569
	+	75.70		9.412E-01	2.208E-01	4.048E-01	3.335E-02	2.325
		98.88	*	3.444E-01	2.320E-01	3.836E-01	3.346E-02	0.898
		129.76		2.104E+00	2.892E+00	4.908E+00	4.137E-01	0.429
TL-200		367.94	*	4.593E-05	2.892E+00	Half-Life too short		
		579.30		4.523E-03	2.892E+00	Half-Life too short		
		828.27		-4.600E-03	2.892E+00	Half-Life too short		
		1205.75		-1.937E-03	2.892E+00	Half-Life too short		
TL-201		68.90		-7.817E-01	4.861E+00	7.123E+00	5.489E-01	-0.110
		70.82		1.095E+00	2.735E+00	4.087E+00	3.207E-01	0.268
		80.30		-5.462E+00	5.023E+00	6.952E+00	6.022E-01	-0.786
		135.34		-2.830E+01	2.404E+01	3.894E+01	3.347E+00	-0.727
		167.43	*	-3.839E+00	6.756E+00	1.103E+01	1.087E+00	-0.348
TL-202		68.90		-7.167E-02	4.456E-01	6.530E-01	5.032E-02	-0.110
		70.82		1.001E-01	2.500E-01	3.737E-01	2.932E-02	0.268
		80.30		-4.996E-01	4.594E-01	6.358E-01	5.508E-02	-0.786

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	1.093E-02	6.933E-02	1.137E-01	1.095E-02	0.096
HG-203		70.83		4.432E-01	1.090E+00	1.628E+00	2.137E-01	0.272
		72.87		1.230E+00	5.902E-01	9.904E-01	1.269E-01	1.242
		82.60		1.049E+00	1.116E+00	1.747E+00	2.431E-01	0.600
		279.20	*	5.060E-02	4.081E-02	6.779E-02	9.596E-03	0.746
BI-207		72.80		3.305E-01	1.685E-01	2.885E-01	2.308E-02	1.146
	+	74.97		5.223E-01	1.225E-01	1.998E-01	1.633E-02	2.615
		84.90		1.383E-01	2.064E-01	3.035E-01	2.774E-02	0.456
		569.67		-1.102E-02	2.886E-02	4.597E-02	4.721E-03	-0.240
		1063.62	*	-4.075E-03	4.703E-02	7.617E-02	7.312E-03	-0.053
		1770.23		1.142E+00	5.400E-01	9.814E-01	8.158E-02	1.164
TL-207		81.07		-1.836E-01	2.249E-01	3.156E-01	2.758E-02	-0.582
		83.78		1.858E-01	1.369E-01	2.057E-01	1.856E-02	0.903
		94.90		7.557E-01	2.668E-01	4.153E-01	3.712E-02	1.820
		122.32		-1.123E+00	1.771E+00	2.732E+00	2.432E-01	-0.411
		144.24		1.490E-01	7.305E-01	1.193E+00	1.181E-01	0.125
	+	154.21		8.620E-01	5.137E-01	6.609E-01	6.675E-02	1.304
	+	269.46		4.260E-01	2.451E-01	3.394E-01	4.661E-02	1.255
		323.87	*	-6.212E-03	7.087E-01	1.030E+00	2.046E-01	-0.006
	+	338.28		6.452E+00	1.787E+00	2.263E+00	3.346E-01	2.852
		445.03		-8.473E-01	2.312E+00	3.686E+00	4.736E-01	-0.230
PO-209		260.50		4.524E+00	9.587E+00	1.571E+01	2.085E+00	0.288
		262.80		-1.058E+01	2.636E+01	4.156E+01	5.553E+00	-0.255
		896.60	*	-3.663E+00	6.688E+00	1.065E+01	1.193E+00	-0.344
BI-210		46.50	*	3.654E+00	3.191E+00	5.431E+00	5.045E-01	0.673
PB-210		46.50	*	3.654E+00	3.191E+00	5.431E+00	5.045E-01	0.673
PO-210		46.50	*	3.654E+00	3.187E+00	5.431E+00	4.566E-01	0.673
PB-211		404.84	*	-5.361E-01	9.275E-01	1.373E+00	8.620E-01	-0.390
		427.08		1.487E-01	1.904E+00	3.117E+00	1.941E+00	0.048
		831.96		-1.781E-01	1.087E+00	1.786E+00	1.126E+00	-0.100
BI-212	+	727.18	*	1.439E+00	4.111E-01	5.718E-01	6.829E-02	2.517
		785.46		1.263E+00	1.723E+00	2.897E+00	3.184E-01	0.436
		1620.62		8.317E-01	1.146E+00	2.041E+00	1.779E-01	0.407
PO-215		81.07		-1.836E-01	2.249E-01	3.156E-01	2.758E-02	-0.582
		83.78		1.858E-01	1.369E-01	2.057E-01	1.856E-02	0.903
		94.90		7.557E-01	2.668E-01	4.153E-01	3.712E-02	1.820
		122.32		-1.123E+00	1.771E+00	2.732E+00	2.432E-01	-0.411
		144.24		1.490E-01	7.305E-01	1.193E+00	1.181E-01	0.125
	+	154.21		8.620E-01	5.137E-01	6.609E-01	6.675E-02	1.304
	+	269.46		4.260E-01	2.451E-01	3.394E-01	4.661E-02	1.255
		323.87	*	-6.212E-03	7.087E-01	1.030E+00	2.046E-01	-0.006
	+	338.28		6.452E+00	1.787E+00	2.263E+00	3.346E-01	2.852
		445.03		-8.473E-01	2.312E+00	3.686E+00	4.736E-01	-0.230
RN-219	+	271.23		5.466E-01	3.158E-01	4.328E-01	6.412E-02	1.263
		401.81	*	-1.022E-01	3.740E-01	6.046E-01	9.355E-02	-0.169
RN-220		549.76	*	-9.007E+00	2.273E+01	3.707E+01	3.778E+00	-0.243
RA-223		81.07		-1.836E-01	2.249E-01	3.156E-01	2.758E-02	-0.582
		83.78		1.858E-01	1.369E-01	2.057E-01	1.856E-02	0.903
		94.90		7.557E-01	2.668E-01	4.153E-01	3.712E-02	1.820

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-1.123E+00	1.771E+00	2.732E+00	2.432E-01	-0.411
		144.24		1.490E-01	7.305E-01	1.193E+00	1.181E-01	0.125
	+	154.21		8.620E-01	5.137E-01	6.609E-01	6.675E-02	1.304
	+	269.46		4.260E-01	2.451E-01	3.394E-01	4.661E-02	1.255
		323.87	*	-6.212E-03	7.087E-01	1.030E+00	2.046E-01	-0.006
	+	338.28		6.452E+00	1.787E+00	2.263E+00	3.346E-01	2.852
		445.03		-8.473E-01	2.312E+00	3.686E+00	4.736E-01	-0.230
AC-227		79.80		-2.177E+00	1.731E+00	2.294E+00	4.932E-01	-0.949
		236.00		9.545E-01	3.088E-01	4.489E-01	6.772E-02	2.126
		256.20	*	-1.286E-01	3.933E-01	6.241E-01	1.139E-01	-0.206
		286.10		3.610E-02	1.493E+00	2.386E+00	4.066E-01	0.015
		299.80		1.596E+00	1.642E+00	2.480E+00	5.022E-01	0.643
		304.40		-1.637E+00	1.942E+00	3.068E+00	6.436E-01	-0.533
		334.20		1.105E+00	3.597E+00	3.621E+00	7.664E-01	0.305
TH-227		79.80		-2.177E+00	1.732E+00	2.294E+00	4.995E-01	-0.949
	+	94.00		2.473E+01	6.748E+00	4.818E+00	1.057E+00	5.132
		236.00		9.545E-01	3.048E-01	4.489E-01	6.354E-02	2.126
		256.20	*	-1.286E-01	3.935E-01	6.241E-01	1.285E-01	-0.206
		286.10		3.610E-02	1.493E+00	2.386E+00	2.409E+00	0.015
		299.80		1.596E+00	1.642E+00	2.480E+00	5.022E-01	0.643
		304.40		-1.637E+00	1.942E+00	3.068E+00	6.436E-01	-0.533
		334.20		1.105E+00	3.597E+00	3.621E+00	7.664E-01	0.305
TH-229		85.43		2.837E-01	2.030E-01	3.080E-01	2.833E-02	0.921
	+	88.47		2.921E-01	1.414E-01	2.093E-01	1.977E-02	1.396
		100.00		2.075E-01	1.838E-01	3.060E-01	2.653E-02	0.678
		193.63	*	-3.260E-01	4.931E-01	7.912E-01	8.506E-02	-0.412
	+	210.97		1.467E+00	8.405E-01	1.352E+00	1.539E-01	1.085
PA-231		283.67	*	1.166E-01	1.526E+00	2.447E+00	4.569E-01	0.048
		301.29		1.230E+00	6.560E-01	1.011E+00	1.607E-01	1.217
TH-231		81.07		-1.836E-01	2.249E-01	3.156E-01	2.758E-02	-0.582
		83.78		1.858E-01	1.369E-01	2.057E-01	1.856E-02	0.903
		94.90		7.557E-01	2.668E-01	4.153E-01	3.712E-02	1.820
		122.32		-1.123E+00	1.771E+00	2.732E+00	2.432E-01	-0.411
		144.24		1.490E-01	7.305E-01	1.193E+00	1.181E-01	0.125
	+	154.21		8.620E-01	5.137E-01	6.609E-01	6.675E-02	1.304
	+	269.46		4.260E-01	2.451E-01	3.394E-01	4.661E-02	1.255
		323.87	*	-6.212E-03	7.087E-01	1.030E+00	2.046E-01	-0.006
	+	338.28		6.452E+00	1.787E+00	2.263E+00	3.346E-01	2.852
		445.03		-8.473E-01	2.312E+00	3.686E+00	4.736E-01	-0.230
U-231		84.21		4.209E+00	5.802E+00	8.552E+00	7.753E-01	0.492
	+	92.29		2.397E+01	4.450E+00	5.304E+00	4.837E-01	4.519
		95.87	*	-1.425E+00	1.190E+00	1.607E+00	1.427E-01	-0.887
		108.00		-4.018E+00	2.140E+00	3.087E+00	2.595E-01	-1.302
PA-233	+	75.28		1.524E+01	4.066E+00	6.081E+00	9.193E-01	2.506
	+	86.59		4.189E+00	2.289E+00	2.874E+00	7.777E-01	1.457
		300.12		4.774E-01	4.544E-01	6.900E-01	1.244E-01	0.692
		311.98	*	1.617E-02	6.011E-02	1.018E-01	1.334E-02	0.159
		340.50		2.909E+00	1.029E+00	1.254E+00	3.154E-01	2.320
		398.62		1.268E+00	1.922E+00	3.211E+00	8.631E-01	0.395

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		4.464E-01	1.559E+00	2.583E+00	5.658E-01	0.173
PA-234	+	63.00		8.854E+00	2.479E+00	3.087E+00	4.572E-01	2.868
		94.67		8.762E-01	2.226E-01	3.253E-01	4.111E-02	2.694
		98.44		8.723E-02	1.068E-01	1.555E-01	8.677E-02	0.561
		99.86		5.677E-01	4.671E-01	7.792E-01	6.760E-02	0.729
		111.00		1.786E-01	1.904E-01	3.122E-01	3.713E-02	0.572
		131.20		4.792E-02	1.032E-01	1.772E-01	1.501E-02	0.270
	+	152.70		7.074E-01	4.333E-01	5.414E-01	9.402E-02	1.307
	+	186.00		9.171E+00	3.615E+00	2.930E+00	9.312E-01	3.130
		226.40		-3.845E-02	3.891E-01	6.310E-01	9.839E-02	-0.061
		227.20		-2.523E-01	4.207E-01	6.666E-01	7.995E-02	-0.379
		248.90		-8.253E-01	8.651E-01	1.250E+00	3.043E-01	-0.660
		293.70		6.176E+00	1.516E+00	1.618E+00	3.272E-01	3.817
		369.80		2.752E-01	7.903E-01	1.324E+00	2.987E-01	0.208
		568.70		-4.868E-01	9.366E-01	1.479E+00	1.519E-01	-0.329
		569.50		-1.025E-01	2.559E-01	4.070E-01	4.180E-02	-0.252
		574.00		-4.505E-01	1.380E+00	2.202E+00	2.265E-01	-0.205
		699.00		1.076E-01	6.886E-01	1.134E+00	2.280E-01	0.095
		706.10		1.557E-01	9.977E-01	1.639E+00	7.381E-01	0.095
		733.00		1.386E-01	3.843E-01	5.515E-01	1.276E-01	0.251
		742.81		3.397E-01	1.316E+00	2.138E+00	1.444E+00	0.159
	+	796.30		1.230E+00	1.030E+00	1.517E+00	4.234E-01	0.811
		805.60		1.068E+00	9.643E-01	1.617E+00	5.082E-01	0.660
		819.60		8.554E-01	1.134E+00	1.903E+00	7.358E-01	0.449
		826.30		-5.833E-01	7.775E-01	1.158E+00	5.243E-01	-0.504
		831.60		-9.266E-02	5.579E-01	9.205E-01	2.822E-01	-0.101
		876.40		1.237E-03	7.229E-01	1.201E+00	1.237E+00	0.001
		880.51		-1.086E-01	2.382E-01	3.820E-01	4.272E-02	-0.284
		883.24		-4.785E-02	2.453E-01	3.980E-01	2.690E-01	-0.120
		899.00		-4.767E-01	7.837E-01	1.197E+00	5.302E-01	-0.398
		925.00		5.915E-01	1.068E+00	1.826E+00	2.009E-01	0.324
		926.50		6.875E-02	1.626E-01	2.746E-01	7.188E-02	0.250
		946.00	*	-2.089E-02	2.766E-01	4.537E-01	9.019E-02	-0.046
		949.00		1.685E-01	4.091E-01	6.922E-01	7.479E-02	0.243
		980.50		-1.552E-01	6.617E-01	1.069E+00	1.124E-01	-0.145
		1394.10		-1.077E+00	1.305E+00	1.635E+00	1.065E+00	-0.659
PA-234M		766.42		2.932E+01	1.880E+01	2.082E+01	1.065E+01	1.409
	+	1001.03	*	1.231E+01	7.687E+00	8.870E+00	1.016E+00	1.388
U-235		89.95		-2.929E+00	2.057E+00	1.921E+00	5.965E-01	-1.525
	+	93.35		7.693E+00	2.500E+00	1.674E+00	4.714E-01	4.595
		105.00		1.913E+00	1.180E+00	1.766E+00	5.264E-01	1.083
		143.76	*	4.364E-02	2.253E-01	3.678E-01	6.489E-02	0.119
		163.35		4.899E-01	4.781E-01	8.082E-01	1.583E-01	0.606
	+	185.71		3.397E-01	8.685E-02	1.087E-01	1.138E-02	3.126
		205.31		7.469E-02	5.896E-01	8.532E-01	1.737E-01	0.088
NP-236		94.67		6.728E-01	1.585E-01	2.474E-01	2.215E-02	2.719
		98.44		6.592E-02	7.205E-02	1.175E-01	1.028E-02	0.561
		111.00		1.351E-01	1.435E-01	2.361E-01	1.970E-02	0.572
		160.31	*	-5.833E-02	7.989E-02	1.273E-01	1.217E-02	-0.458

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.212E-01	1.590E-01	2.623E-01	2.279E-02	0.843
		117.00	*	7.138E-03	1.894E-01	3.016E-01	2.493E-02	0.024
	+	209.75		1.478E+00	8.468E-01	1.341E+00	1.520E-01	1.102
		228.18		-6.381E-02	2.187E-01	3.515E-01	4.228E-02	-0.182
		277.60		3.554E-02	1.804E-01	2.912E-01	4.058E-02	0.122
		334.30		8.343E-01	1.718E+00	2.051E+00	2.474E-01	0.407
AM-241		59.54	*	1.087E-01	1.564E-01	2.396E-01	1.873E-02	0.454
CM-243		99.55		2.276E-01	1.636E-01	2.699E-01	2.345E-02	0.843
		103.76	*	-7.973E-05	9.675E-02	1.552E-01	1.323E-02	-0.001
		117.00		7.343E-03	1.948E-01	3.103E-01	2.564E-02	0.024
	+	209.75		1.457E+00	8.347E-01	1.321E+00	1.498E-01	1.102
		228.18		-6.447E-02	2.210E-01	3.552E-01	4.273E-02	-0.182
		277.60		3.583E-02	1.819E-01	2.935E-01	4.091E-02	0.122
AM-246		798.80		-6.636E-02	1.564E-01	2.063E-01	2.274E-02	-0.322
		1036.00		1.200E-01	2.578E-01	4.356E-01	4.325E-02	0.276
		1062.04		1.265E-01	2.018E-01	3.436E-01	3.305E-02	0.368
		1078.86	*	7.638E-02	1.247E-01	2.119E-01	1.994E-02	0.360
CM-247		278.00		2.717E-01	7.560E-01	1.227E+00	1.712E-01	0.221
		287.40		-1.119E+00	1.221E+00	1.847E+00	2.542E-01	-0.606
		402.60	*	-3.109E-02	3.425E-02	5.339E-02	5.008E-03	-0.582
CF-249		252.85		4.300E-01	8.785E-01	1.444E+00	1.873E-01	0.298
		333.44		7.546E-02	2.632E-01	2.649E-01	3.204E-02	0.285
		387.95	*	-2.776E-02	3.872E-02	6.142E-02	5.837E-03	-0.452
CF-251		176.60	*	7.764E-02	1.303E-01	2.150E-01	2.184E-02	0.361
		227.00		-1.895E-01	3.707E-01	5.900E-01	7.072E-02	-0.321
		285.00		-4.918E-01	1.719E+00	2.706E+00	3.743E-01	-0.182

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837004       *
* Acquisition date : 23-FEB-2010 12:06:44 Detector SN#    :                 *
* Detector ID       : GAM22               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.21     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  8-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246837004          Analyst initials: MXR1            *
* Batch Number      : 952641              Sample Quantity : 1.2241E+02 GRAM *
* Recovery          :    1.00000          Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.668E+01	2.736E+00	4.483E-01	0.000E+00
CD-109	2.176E+00	1.032E+00	1.678E+00	0.000E+00
SN-126	2.140E-01	1.015E-01	1.491E-01	0.000E+00
BA-137M	4.988E-01	8.026E-02	5.613E-02	0.000E+00
CS-137	5.272E-01	8.489E-02	5.933E-02	0.000E+00
RE-188	3.727E-01	2.172E-01	2.768E-01	0.000E+00
TL-208	5.372E-01	9.142E-02	5.291E-02	0.000E+00
BI-211	3.959E+00	6.243E-01	3.124E-01	0.000E+00
PB-212	1.701E+00	2.442E-01	9.009E-02	0.000E+00
PO-212	1.701E+00	2.442E-01	9.009E-02	0.000E+00
BI-214	1.185E+00	1.930E-01	1.035E-01	0.000E+00
PB-214	1.377E+00	2.283E-01	1.112E-01	0.000E+00
PO-214	1.377E+00	2.283E-01	1.112E-01	0.000E+00
PO-216	1.701E+00	2.442E-01	9.009E-02	0.000E+00
PO-218	1.377E+00	2.283E-01	1.112E-01	0.000E+00
RA-224	4.484E+00	1.261E+00	1.024E+00	0.000E+00
RA-226	1.185E+00	1.930E-01	1.035E-01	0.000E+00
AC-228	1.459E+00	3.544E-01	1.954E-01	0.000E+00
RA-228	1.459E+00	3.544E-01	1.954E-01	0.000E+00
TH-228	1.727E+00	2.478E-01	9.145E-02	0.000E+00
TH-230	1.185E+00	1.930E-01	1.035E-01	0.000E+00
TH-232	1.459E+00	3.544E-01	1.954E-01	0.000E+00
TH-234	7.596E+00	2.192E+00	2.075E+00	0.000E+00
U-234	1.185E+00	1.930E-01	1.035E-01	0.000E+00
NP-237	6.283E-01	3.239E-01	4.090E-01	0.000E+00
U-238	7.596E+00	2.192E+00	2.075E+00	0.000E+00
AM-243	2.910E-01	6.690E-02	8.455E-02	0.000E+00
ANH-511	1.262E-01	6.832E-02	4.146E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	2.181E-01	3.025E-01	5.232E-01	0.000E+00	NOT IDENT.
NA-22	8.572E-03	3.890E-02	6.671E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.209E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.802E-03	2.427E-02	4.012E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.313E-02	7.357E-02	0.000E+00	FAIL ABUN
SC-46	8.438E-03	3.387E-02	5.854E-02	0.000E+00	FAIL ABUN
V-48	-3.561E-02	6.398E-02	1.033E-01	0.000E+00	NOT IDENT.
CR-51	-1.389E-01	3.417E-01	5.829E-01	0.000E+00	NOT IDENT.
MN-52	-1.397E-01	2.030E-01	3.138E-01	0.000E+00	NOT IDENT.
MN-54	2.070E-02	3.335E-02	5.897E-02	0.000E+00	NOT IDENT.
CO-56	8.352E-03	3.558E-02	6.167E-02	0.000E+00	NOT IDENT.
CO-57	-1.577E-02	2.510E-02	4.076E-02	0.000E+00	NOT IDENT.
CO-58	-2.783E-02	3.378E-02	5.474E-02	0.000E+00	NOT IDENT.
FE-59	-3.897E-02	7.879E-02	1.259E-01	0.000E+00	NOT IDENT.
CO-60	-5.617E-03	3.226E-02	5.336E-02	0.000E+00	NOT IDENT.
ZN-65	-8.123E-03	9.039E-02	1.261E-01	0.000E+00	NOT IDENT.
GE-68	2.506E-01	1.098E+00	1.858E+00	0.000E+00	NOT IDENT.
AS-73	2.773E-01	7.185E-01	1.293E+00	0.000E+00	NOT IDENT.
AS-74	-3.324E-02	8.205E-02	1.370E-01	0.000E+00	NOT IDENT.
SE-75	-4.360E-02	4.969E-02	6.816E-02	0.000E+00	NOT IDENT.
BR-77	-4.755E+00	9.194E+00	1.471E+01	0.000E+00	FAIL ABUN
SR-82	-1.965E-01	3.596E-01	5.755E-01	0.000E+00	NOT IDENT.
RB-83	-2.989E-02	6.287E-02	1.009E-01	0.000E+00	NOT IDENT.
RB-84	-9.768E-03	5.742E-02	9.657E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.722E+00	1.438E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.467E-02	7.365E-02	0.000E+00	NOT IDENT.
RB-86	1.310E-01	6.989E-01	1.179E+00	0.000E+00	NOT IDENT.
Y-88	-1.411E-03	2.997E-02	4.967E-02	0.000E+00	NOT IDENT.
ZR-88	7.459E-03	2.800E-02	4.831E-02	0.000E+00	NOT IDENT.
Y-91	-9.818E+00	1.648E+01	2.537E+01	0.000E+00	NOT IDENT.
NB-94	4.074E-03	3.162E-02	5.346E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.261E-02	7.747E-02	0.000E+00	NOT IDENT.
NB-95M	1.785E-01	1.380E-01	2.144E-01	0.000E+00	NOT IDENT.
ZR-95	8.675E-02	6.259E-02	1.121E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.850E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.767E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-4.990E+00	1.064E+01	1.720E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.928E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.324E-02	3.324E-02	5.646E-02	0.000E+00	NOT IDENT.
RH-102	-2.624E-02	2.757E-02	4.345E-02	0.000E+00	NOT IDENT.
RU-103	1.905E-02	3.697E-02	6.311E-02	0.000E+00	FAIL ABUN
RH-106	-3.017E-02	2.796E-01	4.725E-01	0.000E+00	FAIL ABUN
RU-106	-3.017E-02	2.796E-01	4.725E-01	0.000E+00	FAIL ABUN
AG-108M	-4.807E-03	3.045E-02	5.093E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	3.881E-02	6.364E-02	0.000E+00	NOT IDENT.
IN-111	7.366E-01	1.059E+00	1.619E+00	0.000E+00	NOT IDENT.
IN-113M	5.082E-02	4.118E-02	7.375E-02	0.000E+00	NOT IDENT.
SN-113	5.082E-02	4.118E-02	7.375E-02	0.000E+00	NOT IDENT.
IN-114M	-5.657E-02	1.941E-01	2.898E-01	0.000E+00	NOT IDENT.
CD-115	7.198E-01	9.374E+00	1.628E+01	0.000E+00	NOT IDENT.
SN-117M	-1.615E-04	5.850E-02	8.909E-02	0.000E+00	NOT IDENT.
SB-122	-8.970E-02	1.742E+00	2.985E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.448E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.035E-03	3.100E-02	4.708E-02	0.000E+00	NOT IDENT.
I-124	2.148E-01	6.808E-01	1.023E+00	0.000E+00	NOT IDENT.
SB-124	9.616E-03	5.902E-02	1.015E-01	0.000E+00	FAIL ABUN
SB-125	2.866E-02	8.196E-02	1.409E-01	0.000E+00	FAIL ABUN
TE-125M	-9.810E+00	9.583E+00	1.519E+01	0.000E+00	NOT IDENT.
I-126	1.525E-01	1.837E-01	2.837E-01	0.000E+00	NOT IDENT.
SB-126	5.683E-03	1.455E-01	2.094E-01	0.000E+00	FAIL ABUN
SB-127	-1.412E-02	1.106E+00	1.860E+00	0.000E+00	NOT IDENT.
XE-127	-2.484E-03	4.617E-02	7.909E-02	0.000E+00	NOT IDENT.
I-131	-6.925E-02	1.034E-01	1.712E-01	0.000E+00	NOT IDENT.
TE-132	-1.935E-01	6.401E-01	1.072E+00	0.000E+00	NOT IDENT.
BA-133	-1.125E-02	4.513E-02	6.624E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.937E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.330E-02	4.947E-02	7.968E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.775E-01	2.777E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.621E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.475E-02	9.835E-02	1.572E-01	0.000E+00	FAIL ABUN
CE-139	-7.579E-03	2.885E-02	4.995E-02	0.000E+00	NOT IDENT.
BA-140	-5.718E-02	2.267E-01	3.849E-01	0.000E+00	NOT IDENT.
LA-140	-2.717E-04	7.997E-02	1.184E-01	0.000E+00	FAIL ABUN
CE-141	4.346E-04	6.643E-02	1.132E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.599E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.364E-04	1.925E-01	3.423E-01	0.000E+00	NOT IDENT.
PM-144	2.294E-02	3.089E-02	5.397E-02	0.000E+00	NOT IDENT.

PR-144	1.554E+00	2.093E+00	3.657E+00	0.000E+00	NOT IDENT.
PM-146	1.633E-03	4.057E-02	6.826E-02	0.000E+00	NOT IDENT.
ND-147	9.622E-02	4.903E-01	8.559E-01	0.000E+00	NOT IDENT.
PM-149	1.552E+01	8.381E+01	1.403E+02	0.000E+00	NOT IDENT.
EU-152	-4.211E-02	1.055E-01	1.541E-01	0.000E+00	NOT IDENT.
GD-153	9.299E-03	8.830E-02	1.332E-01	0.000E+00	NOT IDENT.
EU-154	2.320E-02	1.086E-01	1.862E-01	0.000E+00	NOT IDENT.
EU-155	0.000E+00	1.047E-01	1.877E-01	0.000E+00	FAIL ABUN
TB-160	-6.561E-02	1.166E-01	1.904E-01	0.000E+00	FAIL ABUN
HO-166M	1.963E-03	5.456E-02	9.168E-02	0.000E+00	NOT IDENT.
TM-171	-2.670E+01	2.912E+01	4.370E+01	0.000E+00	NOT IDENT.
LU-176	-2.812E-02	2.432E-02	3.945E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.157E+00	1.918E+00	0.000E+00	FAIL ABUN
LU-177M	-1.211E-01	1.648E-01	2.686E-01	0.000E+00	NOT IDENT.
HF-181	-2.215E-04	3.938E-02	6.569E-02	0.000E+00	NOT IDENT.
W-181	1.786E-01	3.728E-01	5.936E-01	0.000E+00	NOT IDENT.
TA-182	-7.352E-02	1.775E-01	2.937E-01	0.000E+00	FAIL ABUN
RE-183	8.163E-02	1.059E-01	1.894E-01	0.000E+00	FAIL ABUN
RE-184	1.145E-01	2.293E-01	3.927E-01	0.000E+00	NOT IDENT.
OS-185	-1.169E-03	3.624E-02	6.127E-02	0.000E+00	NOT IDENT.
W-188	3.390E+00	7.300E+00	1.144E+01	0.000E+00	FAIL ABUN
IR-192	-2.802E-03	3.143E-02	5.448E-02	0.000E+00	FAIL ABUN
AU-195	3.444E-01	2.274E-01	3.964E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.900E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.839E+00	6.621E+00	1.132E+01	0.000E+00	NOT IDENT.
TL-202	1.093E-02	6.794E-02	1.153E-01	0.000E+00	NOT IDENT.
HG-203	5.060E-02	4.000E-02	6.914E-02	0.000E+00	NOT IDENT.
BI-207	-4.075E-03	4.609E-02	7.636E-02	0.000E+00	FAIL ABUN
TL-207	-6.212E-03	6.946E-01	1.048E+00	0.000E+00	FAIL ABUN
PO-209	-3.663E+00	6.554E+00	1.070E+01	0.000E+00	NOT IDENT.
BI-210	3.654E+00	3.127E+00	5.663E+00	0.000E+00	NOT IDENT.
PB-210	3.654E+00	3.127E+00	5.663E+00	0.000E+00	NOT IDENT.
PO-210	3.654E+00	3.124E+00	5.663E+00	0.000E+00	NOT IDENT.
PB-211	-5.361E-01	9.090E-01	1.394E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.028E-01	5.760E-01	0.000E+00	FAIL ABUN
PO-215	-6.212E-03	6.946E-01	1.048E+00	0.000E+00	FAIL ABUN
RN-219	-1.022E-01	3.665E-01	6.138E-01	0.000E+00	FAIL ABUN
RN-220	-9.007E+00	2.228E+01	3.748E+01	0.000E+00	NOT IDENT.
RA-223	-6.212E-03	6.946E-01	1.048E+00	0.000E+00	FAIL ABUN
AC-227	-1.286E-01	3.854E-01	6.372E-01	0.000E+00	NOT IDENT.
TH-227	-1.286E-01	3.856E-01	6.372E-01	0.000E+00	FAIL ABUN
TH-229	-3.260E-01	4.832E-01	8.107E-01	0.000E+00	FAIL ABUN
PA-231	1.166E-01	1.496E+00	2.495E+00	0.000E+00	NOT IDENT.
TH-231	-6.212E-03	6.946E-01	1.048E+00	0.000E+00	FAIL ABUN
U-231	-1.425E+00	1.166E+00	1.661E+00	0.000E+00	FAIL ABUN
PA-233	1.617E-02	5.890E-02	1.037E-01	0.000E+00	FAIL ABUN
PA-234	-2.089E-02	2.711E-01	4.556E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	7.533E+00	8.899E+00	0.000E+00	FAIL ABUN
U-235	4.364E-02	2.208E-01	3.783E-01	0.000E+00	FAIL ABUN
NP-236	-5.833E-02	7.830E-02	1.307E-01	0.000E+00	NOT IDENT.
NP-239	7.138E-03	1.856E-01	3.109E-01	0.000E+00	FAIL ABUN
AM-241	1.087E-01	1.533E-01	2.491E-01	0.000E+00	NOT IDENT.
CM-243	-7.973E-05	9.481E-02	1.603E-01	0.000E+00	FAIL ABUN
AM-246	7.638E-02	1.222E-01	2.124E-01	0.000E+00	NOT IDENT.
CM-247	-3.109E-02	3.357E-02	5.420E-02	0.000E+00	NOT IDENT.
CF-249	-2.776E-02	3.795E-02	6.238E-02	0.000E+00	NOT IDENT.
CF-251	7.764E-02	1.277E-01	2.205E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:08:38.39

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837004.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:06:44
Sample ID         : G246837004           Sample quantity  : 1.22410E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1772	10.67*	1.909E+00	2.668E+01	2.668E+01	10.47
CD-109	88.03	193	3.72*	7.469E+00	2.128E+00	2.176E+00	48.39
SN-126	64.28	408	9.60	4.332E+00	3.007E+00	3.007E+00	27.83
	86.94	193	8.90	7.469E+00	8.895E-01	8.895E-01	63.07
	87.57	193	37.00*	7.469E+00	2.140E-01	2.140E-01	48.39
BA-137M	661.65	525	89.98*	3.590E+00	4.983E-01	4.988E-01	16.42
CS-137	661.65	525	85.12*	3.590E+00	5.267E-01	5.272E-01	16.43
RE-188	155.03	129	15.00*	8.201E+00	3.207E-01	3.727E-01	59.46
	477.96	------	1.04	4.488E+00	------ Line Not Found		------
	633.10	------	1.26	3.708E+00	------ Line Not Found		------
TL-208	277.35	------	6.80	6.182E+00	------ Line Not Found		------
	510.84	177	21.60	4.299E+00	5.844E-01	5.844E-01	55.85
	583.14	580	84.20*	3.930E+00	5.372E-01	5.372E-01	17.36
	860.37	71	12.46	2.922E+00	5.977E-01	5.977E-01	51.37
BI-211	72.87	------	1.27	5.897E+00	------ Line Not Found		------
	351.07	902	12.94*	5.401E+00	3.959E+00	3.959E+00	16.09
PB-212	74.81	386	10.70	6.171E+00	1.795E+00	1.795E+00	25.25
	77.11	720	18.00	6.466E+00	1.896E+00	1.896E+00	15.49
	87.30	193	8.00	7.469E+00	9.895E-01	9.895E-01	49.41
	238.63	1660	44.60*	6.708E+00	1.701E+00	1.701E+00	14.64
	300.09	------	3.41	5.916E+00	------ Line Not Found		------
PO-212	74.81	386	10.70	6.171E+00	1.795E+00	1.795E+00	25.25
	77.11	720	18.00	6.466E+00	1.896E+00	1.896E+00	15.49
	87.30	193	8.00	7.469E+00	9.895E-01	9.895E-01	49.41
	115.19	------	0.60	8.535E+00	------ Line Not Found		------
	238.63	1660	44.60*	6.708E+00	1.701E+00	1.701E+00	14.64
	300.09	------	3.41	5.916E+00	------ Line Not Found		------
BI-214	609.31	681	46.30*	3.810E+00	1.185E+00	1.185E+00	16.62
	1120.29	167	15.10	2.345E+00	1.447E+00	1.447E+00	32.66
	1764.49	174	15.80	1.716E+00	1.963E+00	1.963E+00	20.22
PB-214	74.81	386	6.21	6.171E+00	3.093E+00	3.093E+00	24.60
	77.11	720	10.50	6.466E+00	3.250E+00	3.250E+00	17.27

Sample ID : G246837004 Acquisition date : 23-FEB-2010 12:06:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	193	4.67	7.469E+00	1.695E+00	1.695E+00	49.00
	241.98	385	7.49	6.663E+00	2.365E+00	2.365E+00	29.25
	295.21	526	19.20	5.969E+00	1.407E+00	1.407E+00	22.61
	351.92	902	37.20*	5.401E+00	1.377E+00	1.377E+00	16.91
PO-214	74.81	386	6.21	6.171E+00	3.093E+00	3.093E+00	24.60
	77.11	720	10.50	6.466E+00	3.250E+00	3.250E+00	17.27
	87.30	193	4.67	7.469E+00	1.695E+00	1.695E+00	49.00
	241.98	385	7.49	6.663E+00	2.365E+00	2.365E+00	29.25
	295.21	526	19.20	5.969E+00	1.407E+00	1.407E+00	22.61
	351.92	902	37.20*	5.401E+00	1.377E+00	1.377E+00	16.91
PO-216	74.81	386	10.70	6.171E+00	1.795E+00	1.795E+00	25.25
	77.11	720	18.00	6.466E+00	1.896E+00	1.896E+00	15.49
	87.30	193	8.00	7.469E+00	9.895E-01	9.895E-01	49.41
	238.63	1660	44.60*	6.708E+00	1.701E+00	1.701E+00	14.64
	300.09	------	3.41	5.916E+00	------ Line Not Found		------
PO-218	74.81	386	6.21	6.171E+00	3.093E+00	3.093E+00	24.60
	77.11	720	10.50	6.466E+00	3.250E+00	3.250E+00	17.27
	87.30	193	4.67	7.469E+00	1.695E+00	1.695E+00	49.00
	241.98	385	7.49	6.663E+00	2.365E+00	2.365E+00	29.25
	295.21	526	19.20	5.969E+00	1.407E+00	1.407E+00	22.61
	351.92	902	37.20*	5.401E+00	1.377E+00	1.377E+00	16.91
RA-224	240.98	385	3.95*	6.663E+00	4.484E+00	4.484E+00	28.70
RA-226	609.31	681	46.30*	3.810E+00	1.185E+00	1.185E+00	16.62
	1120.29	167	15.10	2.345E+00	1.447E+00	1.447E+00	32.66
	1764.49	174	15.80	1.716E+00	1.963E+00	1.963E+00	20.22
AC-228	338.32	317	11.40	5.526E+00	1.545E+00	1.545E+00	48.14
	911.07	367	27.70*	2.787E+00	1.459E+00	1.459E+00	24.80
	969.11	173	16.60	2.647E+00	1.207E+00	1.207E+00	47.48
RA-228	338.32	317	11.40	5.526E+00	1.545E+00	1.545E+00	48.14
	911.07	367	27.70*	2.787E+00	1.459E+00	1.459E+00	24.80
	969.11	173	16.60	2.647E+00	1.207E+00	1.207E+00	47.48
TH-228	74.81	386	10.70	6.171E+00	1.795E+00	1.822E+00	23.49
	77.11	720	18.00	6.466E+00	1.896E+00	1.925E+00	15.49
	87.30	193	8.00	7.469E+00	9.895E-01	1.004E+00	48.39
	238.63	1660	44.60*	6.708E+00	1.701E+00	1.727E+00	14.64
	300.09	------	3.41	5.916E+00	------ Line Not Found		------
TH-230	609.31	681	46.30*	3.810E+00	1.185E+00	1.185E+00	16.62
	1120.29	167	15.10	2.345E+00	1.447E+00	1.447E+00	32.66
	1764.49	174	15.80	1.716E+00	1.963E+00	1.963E+00	20.22
TH-232	338.32	317	11.40	5.526E+00	1.545E+00	1.545E+00	26.26
	911.07	367	27.70*	2.787E+00	1.459E+00	1.459E+00	24.80
	969.11	173	16.60	2.647E+00	1.207E+00	1.207E+00	47.48
TH-234	63.29	408	3.80*	4.332E+00	7.596E+00	7.596E+00	29.45
	92.38	889	5.41	7.876E+00	6.399E+00	6.399E+00	24.44
U-234	609.31	681	46.30*	3.810E+00	1.185E+00	1.185E+00	16.62
	1120.29	167	15.10	2.345E+00	1.447E+00	1.447E+00	32.66
	1764.49	174	15.80	1.716E+00	1.963E+00	1.963E+00	20.22
NP-237	86.50	193	12.60*	7.469E+00	6.283E-01	6.283E-01	52.60
	95.87	------	2.60	8.032E+00	------ Line Not Found		------

Sample ID : G246837004 Acquisition date : 23-FEB-2010 12:06:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-238	63.29	408	3.80*	4.332E+00	7.596E+00	7.596E+00	29.45
	92.38	889	5.41	7.876E+00	6.399E+00	6.399E+00	18.56
AM-243	74.67	386	66.00*	6.171E+00	2.910E-01	2.910E-01	23.46
	86.72	193	0.34	7.469E+00	2.356E+01	2.356E+01	48.39
	117.66	------	0.55	8.550E+00	------	Line Not Found	------
	142.18	------	0.13	8.387E+00	------	Line Not Found	------
ANH-511	511.00	177	100.00*	4.299E+00	1.262E-01	1.262E-01	55.23

Flag: "*" = Keyline

Sample ID : G246837004 Acquisition date : 23-FEB-2010 12:06:44

Total number of lines in spectrum 32
Number of unidentified lines 3
Number of lines tentatively identified by NID 29 90.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.668E+01	2.668E+01	0.279E+01	10.47	
CD-109	464.00D	1.02	2.128E+00	2.176E+00	1.053E+00	48.39	
SN-126	1.00E+05Y	1.00	2.140E-01	2.140E-01	1.035E-01	48.39	
BA-137M	30.17Y	1.00	4.983E-01	4.988E-01	0.819E-01	16.42	
CS-137	30.17Y	1.00	5.267E-01	5.272E-01	0.866E-01	16.43	
RE-188	69.40D	1.16	3.207E-01	3.727E-01	2.216E-01	59.46	
TL-208	1.41E+10Y	1.00	5.372E-01	5.372E-01	0.933E-01	17.36	
BI-211	7.04E+08Y	1.00	3.959E+00	3.959E+00	0.637E+00	16.09	
PB-212	1.41E+10Y	1.00	1.701E+00	1.701E+00	0.249E+00	14.64	
PO-212	1.41E+10Y	1.00	1.701E+00	1.701E+00	0.249E+00	14.64	
BI-214	1600.00Y	1.00	1.185E+00	1.185E+00	0.197E+00	16.62	
PB-214	1600.00Y	1.00	1.377E+00	1.377E+00	0.233E+00	16.91	
PO-214	1600.00Y	1.00	1.377E+00	1.377E+00	0.233E+00	16.91	
PO-216	1.41E+10Y	1.00	1.701E+00	1.701E+00	0.249E+00	14.64	
PO-218	1600.00Y	1.00	1.377E+00	1.377E+00	0.233E+00	16.91	
RA-224	1.41E+10Y	1.00	4.484E+00	4.484E+00	1.287E+00	28.70	
RA-226	1600.00Y	1.00	1.185E+00	1.185E+00	0.197E+00	16.62	
AC-228	1.41E+10Y	1.00	1.459E+00	1.459E+00	0.362E+00	24.80	
RA-228	1.41E+10Y	1.00	1.459E+00	1.459E+00	0.362E+00	24.80	
TH-228	1.91Y	1.02	1.701E+00	1.727E+00	0.253E+00	14.64	
TH-230	4.47E+09Y	1.00	1.185E+00	1.185E+00	0.197E+00	16.62	
TH-232	1.41E+10Y	1.00	1.459E+00	1.459E+00	0.362E+00	24.80	
TH-234	4.47E+09Y	1.00	7.596E+00	7.596E+00	2.237E+00	29.45	
U-234	4.47E+09Y	1.00	1.185E+00	1.185E+00	0.197E+00	16.62	
NP-237	2.14E+06Y	1.00	6.283E-01	6.283E-01	3.305E-01	52.60	
U-238	4.47E+09Y	1.00	7.596E+00	7.596E+00	2.237E+00	29.45	
AM-243	7380.00Y	1.00	2.910E-01	2.910E-01	0.683E-01	23.46	
ANH-511	1.00E+09Y	1.00	1.262E-01	1.262E-01	0.697E-01	55.23	
	Total Activity :		7.563E+01	7.576E+01			

Grand Total Activity : 7.563E+01 7.576E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246837004 Acquisition date : 23-FEB-2010 12:06:44

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.96	455	556	1.42	371.93	367	11	6.32E-02	23.3	7.61E+00	T
0	209.49	112	319	0.88	418.95	415	7	1.56E-02	56.2	7.18E+00	T
0	270.60	118	297	1.87	541.06	536	9	1.64E-02	55.9	6.27E+00	T
0	328.64	71	244	1.26	657.05	653	9	9.83E-03	85.3	5.62E+00	T
0	463.19	60	156	1.81	925.94	921	9	8.33E-03	82.5	4.58E+00	T
0	727.38	185	82	1.37	1454.03	1447	15	2.57E-02	25.9	3.34E+00	T
0	795.68	49	90	1.52	1590.56	1586	10	6.77E-03	79.0	3.11E+00	T
0	1001.30	87	110	1.80	2001.68	1994	18	1.21E-02	61.4	2.58E+00	T
0	1378.91	54	48	1.93	2756.83	2750	16	7.56E-03	66.3	1.99E+00	
0	1588.18	43	41	1.65	3175.45	3164	18	5.98E-03	75.8	1.81E+00	
0	1729.56	40	5	2.94	3458.30	3448	18	5.56E-03	46.8	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:08:42.74

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837004.CNF;1  *
* Acquisition date : 23-FEB-2010 12:06:44  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.21         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 8-FEB-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G246837004            Analyst initials: MXR1           *
* Batch Number     : 952641                Sample Quantity : 1.22410E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.668E+01	2.792E+00	4.491E-01	4.114E-02	59.401
CD-109	2.176E+00	1.053E+00	1.621E+00	1.539E-01	1.342
SN-126	2.140E-01	1.035E-01	1.441E-01	1.360E-02	1.485
BA-137M	4.988E-01	8.190E-02	5.564E-02	5.868E-03	8.964
CS-137	5.272E-01	8.662E-02	5.882E-02	6.211E-03	8.964
RE-188	3.727E-01	2.216E-01	2.694E-01	2.515E-02	1.383
TL-208	5.372E-01	9.328E-02	5.237E-02	5.678E-03	10.259
BI-211	3.959E+00	6.370E-01	3.072E-01	3.585E-02	12.887
PB-212	1.701E+00	2.491E-01	8.816E-02	1.165E-02	19.299
PO-212	1.701E+00	2.491E-01	8.816E-02	1.165E-02	19.299
BI-214	1.185E+00	1.969E-01	1.025E-01	1.192E-02	11.558
PB-214	1.377E+00	2.330E-01	1.094E-01	1.394E-02	12.591
PO-214	1.377E+00	2.330E-01	1.094E-01	1.394E-02	12.591
PO-216	1.701E+00	2.491E-01	8.816E-02	1.165E-02	19.299
PO-218	1.377E+00	2.330E-01	1.094E-01	1.394E-02	12.591
RA-224	4.484E+00	1.287E+00	1.002E+00	1.255E-01	4.474
RA-226	1.185E+00	1.969E-01	1.025E-01	1.192E-02	11.558
AC-228	1.459E+00	3.616E-01	1.945E-01	2.577E-02	7.499

Sample ID : G246837004 Acquisition date : 23-FEB-2010 12:06:44

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.459E+00	3.616E-01	1.945E-01	2.577E-02	7.499
TH-228	1.727E+00	2.529E-01	8.949E-02	1.182E-02	19.299
TH-230	1.185E+00	1.969E-01	1.025E-01	1.192E-02	11.558
TH-232	1.459E+00	3.616E-01	1.945E-01	2.577E-02	7.499
TH-234	7.596E+00	2.237E+00	1.998E+00	3.477E-01	3.802
U-234	1.185E+00	1.969E-01	1.025E-01	1.192E-02	11.558
NP-237	6.283E-01	3.305E-01	3.952E-01	8.947E-02	1.590
U-238	7.596E+00	2.237E+00	1.998E+00	3.477E-01	3.802
AM-243	2.910E-01	6.826E-02	8.155E-02	6.647E-03	3.568
ANH-511	1.262E-01	6.971E-02	4.097E-02	4.105E-03	3.081

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.181E-01		3.087E-01	5.165E-01	5.391E-02	0.422
NA-22	8.572E-03		3.970E-02	6.671E-02	5.749E-03	0.128
NA-24	-5.927E-01		3.168E-01	Half-Life too short		
AL-26	-1.802E-03		2.477E-02	4.030E-02	3.296E-03	-0.045
TI-44	3.499E-01	+	5.421E-02	7.100E-02	6.020E-03	4.928
SC-46	8.438E-03		3.456E-02	5.826E-02	6.521E-03	0.145
V-48	-3.561E-02		6.528E-02	1.029E-01	1.079E-02	-0.346
CR-51	-1.389E-01		3.486E-01	5.725E-01	7.413E-02	-0.243
MN-52	-1.397E-01		2.072E-01	3.143E-01	2.808E-02	-0.445
MN-54	2.070E-02		3.403E-02	5.864E-02	6.514E-03	0.353
CO-56	8.352E-03		3.631E-02	6.133E-02	6.828E-03	0.136
CO-57	-1.577E-02		2.561E-02	3.956E-02	3.262E-03	-0.399
CO-58	-2.783E-02		3.447E-02	5.441E-02	6.025E-03	-0.511
FE-59	-3.897E-02		8.040E-02	1.256E-01	1.231E-02	-0.310
CO-60	-5.617E-03		3.292E-02	5.338E-02	4.760E-03	-0.105
ZN-65	-8.123E-03		9.223E-02	1.259E-01	1.123E-02	-0.065
GE-68	2.506E-01		1.121E+00	1.853E+00	1.747E-01	0.135
AS-73	2.773E-01		7.332E-01	1.242E+00	9.385E-02	0.223
AS-74	-3.324E-02		8.373E-02	1.356E-01	1.406E-02	-0.245
SE-75	-4.360E-02		5.070E-02	6.679E-02	8.989E-03	-0.653
BR-77	-4.755E+00		9.381E+00	1.454E+01	1.464E+00	-0.327
SR-82	-1.965E-01		3.669E-01	5.717E-01	6.270E-02	-0.344
RB-83	-2.989E-02		6.415E-02	9.974E-02	1.004E-02	-0.300
RB-84	-9.768E-03		5.860E-02	9.610E-02	1.075E-02	-0.102
KR-85	2.886E+01		8.900E+00	1.421E+01	1.426E+00	2.031
SR-85	1.478E-01		4.558E-02	7.278E-02	7.303E-03	2.031
RB-86	1.310E-01		7.132E-01	1.176E+00	1.110E-01	0.111
Y-88	-1.411E-03		3.058E-02	4.990E-02	4.034E-03	-0.028
ZR-88	7.459E-03		2.857E-02	4.757E-02	4.429E-03	0.157
Y-91	-9.818E+00		1.682E+01	2.535E+01	2.084E+00	-0.387
NB-94	4.074E-03		3.226E-02	5.304E-02	5.684E-03	0.077
NB-95	1.043E-01		4.348E-02	7.695E-02	8.415E-03	1.356
NB-95M	1.785E-01		1.408E-01	2.098E-01	2.773E-02	0.851

Sample ID : G246837004 Acquisition date : 23-FEB-2010 12:06:44

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	8.675E-02		6.386E-02	1.113E-01	1.292E-02	0.779
NB-97	2.188E-01		5.025E-02	Half-Life too short		
ZR-97	6.760E+00		9.017E-01	Half-Life too short		
MO-99	-4.990E+00		1.086E+01	1.708E+01	2.827E+00	-0.292
TC-99M	-2.752E+10		1.494E+10	Half-Life too short		
RH-101	1.324E-02		3.392E-02	5.512E-02	6.013E-03	0.240
RH-102	-2.624E-02		2.814E-02	4.289E-02	4.218E-03	-0.612
RU-103	1.905E-02		3.772E-02	6.234E-02	9.356E-03	0.306
RH-106	-3.017E-02		2.853E-01	4.681E-01	6.835E-02	-0.064
RU-106	-3.017E-02		2.853E-01	4.681E-01	4.889E-02	-0.064
AG-108M	-4.807E-03		3.107E-02	5.022E-02	4.972E-03	-0.096
AG-110M	7.802E-02		3.961E-02	6.309E-02	6.780E-03	1.237
IN-111	7.366E-01		1.080E+00	1.585E+00	2.010E-01	0.465
IN-113M	5.082E-02		4.202E-02	7.262E-02	6.935E-03	0.700
SN-113	5.082E-02		4.202E-02	7.262E-02	6.935E-03	0.700
IN-114M	-5.657E-02		1.981E-01	2.828E-01	3.006E-02	-0.200
CD-115	7.198E-01		9.565E+00	1.609E+01	1.625E+00	0.045
SN-117M	-1.615E-04		5.970E-02	8.673E-02	8.225E-03	-0.002
SB-122	-8.970E-02		1.777E+00	2.953E+00	3.026E-01	-0.030
I-123	-3.575E-01		2.779E+00	Half-Life too short		
TE-123M	-2.035E-03		3.164E-02	4.584E-02	4.378E-03	-0.044
I-124	2.148E-01		6.947E-01	1.013E+00	1.052E-01	0.212
SB-124	9.616E-03		6.023E-02	1.019E-01	9.063E-03	0.094
SB-125	2.866E-02		8.363E-02	1.389E-01	1.348E-02	0.206
TE-125M	-9.810E+00		9.779E+00	1.472E+01	1.490E+00	-0.666
I-126	1.525E-01		1.875E-01	2.813E-01	2.972E-02	0.542
SB-126	5.683E-03		1.485E-01	2.078E-01	2.241E-02	0.027
SB-127	-1.412E-02		1.128E+00	1.845E+00	2.390E-01	-0.008
XE-127	-2.484E-03		4.711E-02	7.723E-02	8.561E-03	-0.032
I-131	-6.925E-02		1.055E-01	1.685E-01	1.867E-02	-0.411
TE-132	-1.935E-01		6.532E-01	1.049E+00	1.867E-01	-0.184
BA-133	-1.125E-02		4.605E-02	6.515E-02	9.735E-03	-0.173
I-133	-3.243E-03		2.519E-03	Half-Life too short		
CS-134	6.330E-02	+	5.048E-02	7.918E-02	8.765E-03	0.799
CS-135	3.561E-01		1.811E-01	2.722E-01	3.937E-02	1.308
I-135	-2.013E+09		1.847E+09	Half-Life too short		
CS-136	-3.475E-02		1.004E-01	1.568E-01	1.585E-02	-0.222
CE-139	-7.579E-03		2.944E-02	4.866E-02	4.772E-03	-0.156
BA-140	-5.718E-02		2.314E-01	3.806E-01	1.278E-01	-0.150
LA-140	-2.717E-04		8.160E-02	1.187E-01	1.041E-02	-0.002
CE-141	4.346E-04		6.779E-02	1.101E-01	1.002E-02	0.004
CE-143	8.641E-04		1.326E-04	Half-Life too short		
CE-144	1.364E-04		1.964E-01	3.325E-01	5.162E-02	0.000
PM-144	2.294E-02		3.152E-02	5.354E-02	5.725E-03	0.428
PR-144	1.554E+00		2.136E+00	3.628E+00	3.879E-01	0.428
PM-146	1.633E-03		4.140E-02	6.735E-02	7.826E-03	0.024
ND-147	9.622E-02		5.003E-01	8.461E-01	1.342E-01	0.114
PM-149	1.552E+01		8.552E+01	1.376E+02	2.603E+01	0.113

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-4.211E-02		1.077E-01	1.515E-01	1.821E-02	-0.278
GD-153	9.299E-03		9.011E-02	1.289E-01	1.133E-02	0.072
EU-154	2.320E-02		1.108E-01	1.862E-01	2.104E-02	0.125
EU-155	2.368E-01		1.069E-01	1.818E-01	1.561E-02	1.302
TB-160	-6.561E-02		1.190E-01	1.894E-01	2.118E-02	-0.346
HO-166M	1.963E-03		5.568E-02	9.098E-02	9.781E-03	0.022
TM-171	-2.670E+01		2.972E+01	4.209E+01	3.180E+00	-0.634
LU-176	-2.812E-02		2.481E-02	3.873E-02	5.081E-03	-0.726
LU-177	2.059E+00	+	1.180E+00	1.873E+00	2.115E-01	1.099
LU-177M	-1.211E-01		1.682E-01	2.647E-01	2.503E-02	-0.457
HF-181	-2.215E-04		4.018E-02	6.485E-02	6.402E-03	-0.003
W-181	1.786E-01		3.804E-01	5.716E-01	4.261E-02	0.313
TA-182	-7.352E-02		1.812E-01	2.935E-01	2.441E-02	-0.250
RE-183	8.163E-02		1.081E-01	1.845E-01	1.780E-02	0.443
RE-184	1.145E-01		2.340E-01	3.846E-01	4.990E-02	0.298
OS-185	-1.169E-03		3.698E-02	6.072E-02	6.382E-03	-0.019
W-188	3.390E+00		7.449E+00	1.122E+01	1.533E+00	0.302
IR-192	-2.802E-03		3.207E-02	5.350E-02	6.838E-03	-0.052
AU-195	3.444E-01		2.320E-01	3.836E-01	3.346E-02	0.898
TL-200	4.593E-05		1.990E-04	Half-Life too short		
TL-201	-3.839E+00		6.756E+00	1.103E+01	1.087E+00	-0.348
TL-202	1.093E-02		6.933E-02	1.137E-01	1.095E-02	0.096
HG-203	5.060E-02		4.081E-02	6.779E-02	9.596E-03	0.746
BI-207	-4.075E-03		4.703E-02	7.617E-02	7.312E-03	-0.053
TL-207	-6.212E-03		7.087E-01	1.030E+00	2.046E-01	-0.006
PO-209	-3.663E+00		6.688E+00	1.065E+01	1.193E+00	-0.344
BI-210	3.654E+00		3.191E+00	5.431E+00	5.045E-01	0.673
PB-210	3.654E+00		3.191E+00	5.431E+00	5.045E-01	0.673
PO-210	3.654E+00		3.187E+00	5.431E+00	4.566E-01	0.673
PB-211	-5.361E-01		9.275E-01	1.373E+00	8.620E-01	-0.390
BI-212	1.439E+00	+	4.111E-01	5.718E-01	6.829E-02	2.517
PO-215	-6.212E-03		7.087E-01	1.030E+00	2.046E-01	-0.006
RN-219	-1.022E-01		3.740E-01	6.046E-01	9.355E-02	-0.169
RN-220	-9.007E+00		2.273E+01	3.707E+01	3.778E+00	-0.243
RA-223	-6.212E-03		7.087E-01	1.030E+00	2.046E-01	-0.006
AC-227	-1.286E-01		3.933E-01	6.241E-01	1.139E-01	-0.206
TH-227	-1.286E-01		3.935E-01	6.241E-01	1.285E-01	-0.206
TH-229	-3.260E-01		4.931E-01	7.912E-01	8.506E-02	-0.412
PA-231	1.166E-01		1.526E+00	2.447E+00	4.569E-01	0.048
TH-231	-6.212E-03		7.087E-01	1.030E+00	2.046E-01	-0.006
U-231	-1.425E+00		1.190E+00	1.607E+00	1.427E-01	-0.887
PA-233	1.617E-02		6.011E-02	1.018E-01	1.334E-02	0.159
PA-234	-2.089E-02		2.766E-01	4.537E-01	9.019E-02	-0.046
PA-234M	1.231E+01	+	7.687E+00	8.870E+00	1.016E+00	1.388
U-235	4.364E-02		2.253E-01	3.678E-01	6.489E-02	0.119
NP-236	-5.833E-02		7.989E-02	1.273E-01	1.217E-02	-0.458
NP-239	7.138E-03		1.894E-01	3.016E-01	2.493E-02	0.024
AM-241	1.087E-01		1.564E-01	2.396E-01	1.873E-02	0.454

Sample ID : G246837004 Acquisition date : 23-FEB-2010 12:06:44

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-7.973E-05		9.675E-02	1.552E-01	1.323E-02	-0.001
AM-246	7.638E-02		1.247E-01	2.119E-01	1.994E-02	0.360
CM-247	-3.109E-02		3.425E-02	5.339E-02	5.008E-03	-0.582
CF-249	-2.776E-02		3.872E-02	6.142E-02	5.837E-03	-0.452
CF-251	7.764E-02		1.303E-01	2.150E-01	2.184E-02	0.361

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246837004           *
* Acquisition date  : 23-FEB-2010 12:06:44 Detector SN#     :               *
* Detector ID       : GAM22                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.21      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  8-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246837004           Analyst initials: MXR1           *
* Batch Number      : 952641               Sample Quantity : 1.2241E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.668E+01	2.736E+00	2.243E-01	1.396E+00
CD-109	2.176E+00	1.032E+00	8.393E-01	5.266E-01
SN-126	2.140E-01	1.015E-01	7.458E-02	5.176E-02
BA-137M	4.988E-01	8.026E-02	2.808E-02	4.095E-02
CS-137	5.272E-01	8.489E-02	2.968E-02	4.331E-02
RE-188	3.727E-01	2.172E-01	1.385E-01	1.108E-01
TL-208	5.372E-01	9.142E-02	2.647E-02	4.664E-02
BI-211	3.959E+00	6.243E-01	1.563E-01	3.185E-01
PB-212	1.701E+00	2.442E-01	4.507E-02	1.246E-01
PO-212	1.701E+00	2.442E-01	4.507E-02	1.246E-01
BI-214	1.185E+00	1.930E-01	5.178E-02	9.845E-02
PB-214	1.377E+00	2.283E-01	5.565E-02	1.165E-01
PO-214	1.377E+00	2.283E-01	5.565E-02	1.165E-01
PO-216	1.701E+00	2.442E-01	4.507E-02	1.246E-01
PO-218	1.377E+00	2.283E-01	5.565E-02	1.165E-01
RA-224	4.484E+00	1.261E+00	5.123E-01	6.435E-01
RA-226	1.185E+00	1.930E-01	5.178E-02	9.845E-02
AC-228	1.459E+00	3.544E-01	9.775E-02	1.808E-01
RA-228	1.459E+00	3.544E-01	9.775E-02	1.808E-01
TH-228	1.727E+00	2.478E-01	4.575E-02	1.264E-01
TH-230	1.185E+00	1.930E-01	5.178E-02	9.845E-02
TH-232	1.459E+00	3.544E-01	9.775E-02	1.808E-01
TH-234	7.596E+00	2.192E+00	1.038E+00	1.118E+00
U-234	1.185E+00	1.930E-01	5.178E-02	9.845E-02
NP-237	6.283E-01	3.239E-01	2.046E-01	1.653E-01
U-238	7.596E+00	2.192E+00	1.038E+00	1.118E+00
AM-243	2.910E-01	6.690E-02	4.230E-02	3.413E-02
ANH-511	1.262E-01	6.832E-02	2.074E-02	3.485E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	2.181E-01	3.025E-01	2.618E-01	1.543E-01	NOT IDENT.
NA-22	8.572E-03	3.890E-02	3.338E-02	1.985E-02	NOT IDENT.
NA-24	-5.927E+05	6.209E+05	0.000E+00	3.168E+05	SHORT HLIF
AL-26	-1.802E-03	2.427E-02	2.007E-02	1.238E-02	NOT IDENT.
TI-44	3.499E-01	5.313E-02	3.681E-02	2.711E-02	FAIL ABUN
SC-46	8.438E-03	3.387E-02	2.929E-02	1.728E-02	FAIL ABUN
V-48	-3.561E-02	6.398E-02	5.167E-02	3.264E-02	NOT IDENT.
CR-51	-1.389E-01	3.417E-01	2.916E-01	1.743E-01	NOT IDENT.
MN-52	-1.397E-01	2.030E-01	1.570E-01	1.036E-01	NOT IDENT.
MN-54	2.070E-02	3.335E-02	2.950E-02	1.701E-02	NOT IDENT.
CO-56	8.352E-03	3.558E-02	3.085E-02	1.815E-02	NOT IDENT.
CO-57	-1.577E-02	2.510E-02	2.039E-02	1.281E-02	NOT IDENT.
CO-58	-2.783E-02	3.378E-02	2.739E-02	1.723E-02	NOT IDENT.
FE-59	-3.897E-02	7.879E-02	6.297E-02	4.020E-02	NOT IDENT.
CO-60	-5.617E-03	3.226E-02	2.669E-02	1.646E-02	NOT IDENT.
ZN-65	-8.123E-03	9.039E-02	6.311E-02	4.612E-02	NOT IDENT.
GE-68	2.506E-01	1.098E+00	9.294E-01	5.603E-01	NOT IDENT.
AS-73	2.773E-01	7.185E-01	6.468E-01	3.666E-01	NOT IDENT.
AS-74	-3.324E-02	8.205E-02	6.853E-02	4.186E-02	NOT IDENT.
SE-75	-4.360E-02	4.969E-02	3.410E-02	2.535E-02	NOT IDENT.
BR-77	-4.755E+00	9.194E+00	7.361E+00	4.691E+00	FAIL ABUN
SR-82	-1.965E-01	3.596E-01	2.879E-01	1.835E-01	NOT IDENT.
RB-83	-2.989E-02	6.287E-02	5.049E-02	3.208E-02	NOT IDENT.
RB-84	-9.768E-03	5.742E-02	4.831E-02	2.930E-02	NOT IDENT.
KR-85	2.886E+01	8.722E+00	7.195E+00	4.450E+00	NOT IDENT.
SR-85	1.478E-01	4.467E-02	3.685E-02	2.279E-02	NOT IDENT.
RB-86	1.310E-01	6.989E-01	5.899E-01	3.566E-01	NOT IDENT.
Y-88	-1.411E-03	2.997E-02	2.485E-02	1.529E-02	NOT IDENT.
ZR-88	7.459E-03	2.800E-02	2.417E-02	1.429E-02	NOT IDENT.
Y-91	-9.818E+00	1.648E+01	1.269E+01	8.409E+00	NOT IDENT.
NB-94	4.074E-03	3.162E-02	2.675E-02	1.613E-02	NOT IDENT.
NB-95	1.043E-01	4.261E-02	3.876E-02	2.174E-02	NOT IDENT.
NB-95M	1.785E-01	1.380E-01	1.073E-01	7.042E-02	NOT IDENT.
ZR-95	8.675E-02	6.259E-02	5.607E-02	3.193E-02	NOT IDENT.
NB-97	2.188E+05	9.850E+04	0.000E+00	5.025E+04	SHORT HLIF
ZR-97	6.760E+06	1.767E+06	0.000E+00	9.017E+05	SHORT HLIF
MO-99	-4.990E+00	1.064E+01	8.606E+00	5.430E+00	NOT IDENT.
TC-99M	-2.752E+16	2.928E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.324E-02	3.324E-02	2.825E-02	1.696E-02	NOT IDENT.
RH-102	-2.624E-02	2.757E-02	2.174E-02	1.407E-02	NOT IDENT.
RU-103	1.905E-02	3.697E-02	3.158E-02	1.886E-02	FAIL ABUN
RH-106	-3.017E-02	2.796E-01	2.364E-01	1.426E-01	FAIL ABUN
RU-106	-3.017E-02	2.796E-01	2.364E-01	1.426E-01	FAIL ABUN
AG-108M	-4.807E-03	3.045E-02	2.548E-02	1.553E-02	NOT IDENT.
AG-110M	7.802E-02	3.881E-02	3.184E-02	1.980E-02	NOT IDENT.
IN-111	7.366E-01	1.059E+00	8.099E-01	5.401E-01	NOT IDENT.
IN-113M	5.082E-02	4.118E-02	3.690E-02	2.101E-02	NOT IDENT.
SN-113	5.082E-02	4.118E-02	3.690E-02	2.101E-02	NOT IDENT.
IN-114M	-5.657E-02	1.941E-01	1.450E-01	9.904E-02	NOT IDENT.
CD-115	7.198E-01	9.374E+00	8.144E+00	4.783E+00	NOT IDENT.
SN-117M	-1.615E-04	5.850E-02	4.457E-02	2.985E-02	NOT IDENT.
SB-122	-8.970E-02	1.742E+00	1.493E+00	8.887E-01	NOT IDENT.
I-123	-3.575E+05	5.448E+06	0.000E+00	2.779E+06	SHORT HLIF
TE-123M	-2.035E-03	3.100E-02	2.356E-02	1.582E-02	NOT IDENT.
I-124	2.148E-01	6.808E-01	5.117E-01	3.474E-01	NOT IDENT.
SB-124	9.616E-03	5.902E-02	5.079E-02	3.011E-02	FAIL ABUN
SB-125	2.866E-02	8.196E-02	7.050E-02	4.182E-02	FAIL ABUN
TE-125M	-9.810E+00	9.583E+00	7.599E+00	4.890E+00	NOT IDENT.
I-126	1.525E-01	1.837E-01	1.419E-01	9.373E-02	NOT IDENT.
SB-126	5.683E-03	1.455E-01	1.048E-01	7.426E-02	FAIL ABUN
SB-127	-1.412E-02	1.106E+00	9.305E-01	5.641E-01	NOT IDENT.
XE-127	-2.484E-03	4.617E-02	3.957E-02	2.355E-02	NOT IDENT.
I-131	-6.925E-02	1.034E-01	8.566E-02	5.273E-02	NOT IDENT.
TE-132	-1.935E-01	6.401E-01	5.365E-01	3.266E-01	NOT IDENT.
BA-133	-1.125E-02	4.513E-02	3.314E-02	2.302E-02	NOT IDENT.
I-133	-3.243E+03	4.937E+03	0.000E+00	2.519E+03	SHORT HLIF
CS-134	6.330E-02	4.947E-02	3.986E-02	2.524E-02	FAIL ABUN
CS-135	3.561E-01	1.775E-01	1.390E-01	9.057E-02	NOT IDENT.
I-135	-2.013E+15	3.621E+15	0.000E+00	1.847E+15	SHORT HLIF
CS-136	-3.475E-02	9.835E-02	7.864E-02	5.018E-02	FAIL ABUN
CE-139	-7.579E-03	2.885E-02	2.499E-02	1.472E-02	NOT IDENT.
BA-140	-5.718E-02	2.267E-01	1.926E-01	1.157E-01	NOT IDENT.
LA-140	-2.717E-04	7.997E-02	5.922E-02	4.080E-02	FAIL ABUN
CE-141	4.346E-04	6.643E-02	5.662E-02	3.389E-02	NOT IDENT.
CE-143	8.641E+02	2.599E+02	0.000E+00	1.326E+02	SHORT HLIF
CE-144	1.364E-04	1.925E-01	1.713E-01	9.820E-02	NOT IDENT.
PM-144	2.294E-02	3.089E-02	2.700E-02	1.576E-02	NOT IDENT.

PR-144	1.554E+00	2.093E+00	1.829E+00	1.068E+00	NOT IDENT.
PM-146	1.633E-03	4.057E-02	3.415E-02	2.070E-02	NOT IDENT.
ND-147	9.622E-02	4.903E-01	4.282E-01	2.501E-01	NOT IDENT.
PM-149	1.552E+01	8.381E+01	7.020E+01	4.276E+01	NOT IDENT.
EU-152	-4.211E-02	1.055E-01	7.710E-02	5.384E-02	NOT IDENT.
GD-153	9.299E-03	8.830E-02	6.662E-02	4.505E-02	NOT IDENT.
EU-154	2.320E-02	1.086E-01	9.314E-02	5.542E-02	NOT IDENT.
EU-155	2.368E-01	1.047E-01	9.391E-02	5.344E-02	FAIL ABUN
TB-160	-6.561E-02	1.166E-01	9.525E-02	5.950E-02	FAIL ABUN
HO-166M	1.963E-03	5.456E-02	4.587E-02	2.784E-02	NOT IDENT.
TM-171	-2.670E+01	2.912E+01	2.186E+01	1.486E+01	NOT IDENT.
LU-176	-2.812E-02	2.432E-02	1.974E-02	1.241E-02	FAIL ABUN
LU-177	2.059E+00	1.157E+00	9.595E-01	5.901E-01	FAIL ABUN
LU-177M	-1.211E-01	1.648E-01	1.344E-01	8.409E-02	NOT IDENT.
HF-181	-2.215E-04	3.938E-02	3.286E-02	2.009E-02	NOT IDENT.
W-181	1.786E-01	3.728E-01	2.970E-01	1.902E-01	NOT IDENT.
TA-182	-7.352E-02	1.775E-01	1.469E-01	9.058E-02	FAIL ABUN
RE-183	8.163E-02	1.059E-01	9.477E-02	5.404E-02	FAIL ABUN
RE-184	1.145E-01	2.293E-01	1.965E-01	1.170E-01	NOT IDENT.
OS-185	-1.169E-03	3.624E-02	3.065E-02	1.849E-02	NOT IDENT.
W-188	3.390E+00	7.300E+00	5.723E+00	3.725E+00	FAIL ABUN
IR-192	-2.802E-03	3.143E-02	2.726E-02	1.604E-02	FAIL ABUN
AU-195	3.444E-01	2.274E-01	1.983E-01	1.160E-01	FAIL ABUN
TL-200	4.593E+01	3.900E+02	0.000E+00	1.990E+02	SHORT HLIF
TL-201	-3.839E+00	6.621E+00	5.663E+00	3.378E+00	NOT IDENT.
TL-202	1.093E-02	6.794E-02	5.771E-02	3.466E-02	NOT IDENT.
HG-203	5.060E-02	4.000E-02	3.459E-02	2.041E-02	NOT IDENT.
BI-207	-4.075E-03	4.609E-02	3.820E-02	2.352E-02	FAIL ABUN
TL-207	-6.212E-03	6.946E-01	5.244E-01	3.544E-01	FAIL ABUN
PO-209	-3.663E+00	6.554E+00	5.353E+00	3.344E+00	NOT IDENT.
BI-210	3.654E+00	3.127E+00	2.833E+00	1.595E+00	NOT IDENT.
PB-210	3.654E+00	3.127E+00	2.833E+00	1.595E+00	NOT IDENT.
PO-210	3.654E+00	3.124E+00	2.833E+00	1.594E+00	NOT IDENT.
PB-211	-5.361E-01	9.090E-01	6.973E-01	4.638E-01	NOT IDENT.
BI-212	1.439E+00	4.028E-01	2.882E-01	2.055E-01	FAIL ABUN
PO-215	-6.212E-03	6.946E-01	5.244E-01	3.544E-01	FAIL ABUN
RN-219	-1.022E-01	3.665E-01	3.071E-01	1.870E-01	FAIL ABUN
RN-220	-9.007E+00	2.228E+01	1.875E+01	1.136E+01	NOT IDENT.
RA-223	-6.212E-03	6.946E-01	5.244E-01	3.544E-01	FAIL ABUN
AC-227	-1.286E-01	3.854E-01	3.188E-01	1.967E-01	NOT IDENT.
TH-227	-1.286E-01	3.856E-01	3.188E-01	1.967E-01	FAIL ABUN
TH-229	-3.260E-01	4.832E-01	4.056E-01	2.465E-01	FAIL ABUN
PA-231	1.166E-01	1.496E+00	1.248E+00	7.632E-01	NOT IDENT.
TH-231	-6.212E-03	6.946E-01	5.244E-01	3.544E-01	FAIL ABUN
U-231	-1.425E+00	1.166E+00	8.309E-01	5.950E-01	FAIL ABUN
PA-233	1.617E-02	5.890E-02	5.189E-02	3.005E-02	FAIL ABUN
PA-234	-2.089E-02	2.711E-01	2.279E-01	1.383E-01	FAIL ABUN
PA-234M	1.231E+01	7.533E+00	4.452E+00	3.843E+00	FAIL ABUN
U-235	4.364E-02	2.208E-01	1.893E-01	1.126E-01	FAIL ABUN
NP-236	-5.833E-02	7.830E-02	6.539E-02	3.995E-02	NOT IDENT.
NP-239	7.138E-03	1.856E-01	1.556E-01	9.468E-02	FAIL ABUN
AM-241	1.087E-01	1.533E-01	1.246E-01	7.820E-02	NOT IDENT.
CM-243	-7.973E-05	9.481E-02	8.018E-02	4.837E-02	FAIL ABUN
AM-246	7.638E-02	1.222E-01	1.063E-01	6.237E-02	NOT IDENT.
CM-247	-3.109E-02	3.357E-02	2.712E-02	1.713E-02	NOT IDENT.
CF-249	-2.776E-02	3.795E-02	3.121E-02	1.936E-02	NOT IDENT.
CF-251	7.764E-02	1.277E-01	1.103E-01	6.516E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	316.1105
46.50	316.1105
46.50	316.1105
48.70	370.4816
49.72	385.0470
51.35	379.5575
52.39	393.3561
52.97	376.6779
53.15	369.5251
53.44	363.4628
54.07	391.5445
56.28	438.5793
56.28	438.5841
57.37	0.0000
57.53	433.2572
57.53	433.2607
57.60	437.1748
57.98	464.4441
57.98	464.4441
59.32	435.4391
59.32	435.4391
59.40	435.5771
59.54	435.8195
59.72	437.5660
60.01	438.0687
61.10	463.0257
61.14	463.0973
61.30	463.3857
63.00	499.8481
63.29	532.4029
63.29	532.4029
63.58	532.9879
64.28	540.2364
65.12	499.4590
65.20	509.8639
65.20	509.8639
66.05	526.1649
66.72	562.8170
66.83	563.0443
66.91	563.2104
67.20	525.4308
67.20	525.4308
67.75	563.4482
67.85	563.6531
68.90	567.2644
68.90	567.2644
69.30	568.0717
69.67	530.1052
70.82	557.6645
70.82	557.6645
70.83	557.6844
72.80	534.9004
72.87	535.0305
72.87	535.0305
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74.81	538.5548
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74.81	538.5548
74.97	538.8449
75.28	539.4033
75.70	540.1570
77.11	542.6755
77.11	542.6755

77.11	542.6755
77.11	542.6755
77.11	542.6755
77.11	542.6755
77.11	542.6755
78.38	501.4747
79.62	571.2271
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80.30	574.0099
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80.57	574.5009
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81.07	581.5992
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81.07	581.5992
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83.78	531.9332
83.78	531.9332
83.78	531.9332
84.21	567.0020
84.90	568.1984
85.43	570.6829
86.29	671.1945
86.50	671.6180
86.54	671.6995
86.59	671.8005
86.72	672.0643
86.79	684.7951
86.94	685.1071
87.30	787.0649
87.30	787.0649
87.30	787.0649
87.30	787.0649
87.30	787.0649
87.30	787.0649
87.30	787.0649
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88.03	973.3281
88.36	869.8906
88.47	870.1760
89.95	978.8362
91.11	860.9670
92.29	660.3975
92.38	660.5675
92.38	660.5675
93.35	662.3911
94.00	417.9713
94.67	457.4092
94.67	457.4157
94.90	457.7104
94.90	457.7104
94.90	457.7104
94.90	457.7104
95.87	534.9027
95.87	534.9027
96.73	497.3034
97.43	459.3072
98.44	435.0775
98.44	435.0796
98.88	401.9249
99.55	388.5077
99.55	388.5077
99.86	408.4358
100.00	408.5903
100.10	414.1541
103.18	450.5146
103.76	434.6933
105.00	364.3347
105.31	350.2627
108.00	512.8921
109.28	483.2973

111.00	422.6025
111.00	422.6025
111.76	412.1675
112.95	409.9962
115.19	484.7132
116.30	479.1952
117.00	400.3757
117.00	400.3757
117.66	404.4217
121.11	413.4485
121.62	426.5854
121.78	426.7421
122.06	417.8097
122.32	418.0589
122.32	418.0589
122.32	418.0589
122.32	418.0589
123.07	432.6248
127.23	456.5069
129.76	454.9731
131.20	438.7858
133.02	449.3640
133.54	425.0720
135.34	464.9350
136.00	478.0485
136.25	478.3025
136.48	445.5643
140.51	498.7514
140.51	0.0000
142.18	485.1367
142.65	466.6458
143.76	455.9387
144.24	455.4753
144.24	455.4753
144.24	455.4753
144.24	455.4753
145.22	463.6357
145.44	465.6577
147.16	497.3161
152.43	416.7099
152.70	418.4008
153.22	417.3455
154.21	394.3150
154.21	394.3150
154.21	394.3150
154.21	394.3150
155.03	398.0786
156.02	372.1430
158.56	381.3813
159.00	0.0000
159.00	396.6037
160.31	427.8410
161.27	454.8056
162.32	397.5518
162.64	391.2206
163.35	397.3661
163.89	395.8759
165.85	426.5433
167.43	432.4925
171.28	396.3953
171.86	405.3829
172.10	405.5548
176.55	391.3935
176.60	391.4276
181.06	431.0391
184.41	405.3962
185.71	414.0819
186.00	414.2825
190.27	387.2698
192.34	377.9587
193.63	397.6786
197.04	367.0125
198.01	373.5466
198.60	388.8455
200.40	411.9371
201.83	448.9263
202.84	411.4858
205.31	407.8050

208.36	430.1361
208.81	409.1597
209.75	388.4380
209.75	388.4380
210.97	333.2626
215.65	387.7498
216.55	383.1366
218.09	339.8462
222.10	356.2708
223.80	362.3100
226.40	340.7850
227.00	349.3916
227.08	349.4301
227.20	356.7701
228.16	343.7089
228.18	343.7190
228.18	343.7190
231.56	0.0000
235.69	362.0278
236.00	355.4443
236.00	355.4443
238.63	342.3392
238.63	342.3392
238.63	342.3392
238.63	342.3392
239.00	342.5098
240.98	343.4194
241.98	343.8792
241.98	343.8792
241.98	343.8792
244.69	260.7537
245.39	262.7005
247.94	299.5230
248.90	329.2745
249.79	318.4720
252.40	287.2707
252.85	298.2010
252.85	298.2010
254.15	0.0000
256.20	334.0777
256.20	334.0777
260.50	286.9775
260.90	280.5970
262.80	298.7050
264.65	314.6880
268.24	252.8613
268.79	238.9762
269.46	276.1031
269.46	276.1031
269.46	276.1031
269.46	276.1031
271.23	269.6476
273.65	351.7432
276.40	312.8764
277.35	319.5703
277.60	306.3433
277.60	306.3433
278.00	307.6012
278.60	266.7041
279.20	264.6704
279.53	264.7721
280.46	311.8384
281.68	306.7104
283.67	277.2404
284.30	276.3260
285.00	275.4325
285.90	256.6676
286.10	263.4535
286.10	263.4535
287.40	290.7941
288.45	0.0000
290.67	241.9258
290.80	241.9619
291.72	249.7396
293.26	0.0000
293.70	256.3316
295.21	323.5313
295.21	323.5313

295.21	323.5313
295.96	323.8058
296.50	388.7418
297.23	369.3806
298.57	294.1299
299.80	302.1236
299.80	302.1236
300.09	296.1499
300.09	296.1499
300.09	296.1499
300.09	296.1499
300.12	296.1578
301.29	261.5658
302.84	269.1263
303.76	335.7835
303.91	335.8372
304.40	325.0339
304.40	325.0339
304.84	334.3502
306.84	297.4456
308.46	276.8193
311.98	242.7934
316.51	243.9749
318.01	229.5002
319.02	233.4649
319.41	242.8683
320.08	256.0736
323.87	252.4230
323.87	252.4230
323.87	252.4230
323.87	252.4230
325.23	255.8997
328.77	265.9240
333.44	236.0443
334.20	240.9520
334.20	240.9520
334.30	233.1018
338.28	266.6173
338.28	266.6173
338.28	266.6173
338.28	266.6173
338.32	266.6310
338.32	266.6310
338.32	266.6310
340.50	239.3199
340.57	239.3352
344.27	256.1286
345.85	277.2452
350.59	0.0000
351.07	227.4219
351.92	237.5475
351.92	237.5475
351.92	237.5475
355.39	0.0000
356.01	226.9047
364.48	219.0152
366.43	194.0639
367.43	192.2938
367.94	0.0000
369.80	199.5674
374.96	194.6307
383.85	189.2817
387.95	240.7091
388.63	223.9371
391.69	184.6296
391.69	184.6296
392.90	199.8145
398.62	179.7385
400.65	177.0398
401.10	176.1044
401.81	200.3798
402.60	220.6708
404.84	218.0698
410.95	212.1151
411.60	231.5263
413.65	225.8265
414.70	215.8482
415.30	198.6396

415.76	194.6419
417.63	0.0000
418.52	204.2871
423.70	189.7876
427.08	184.1480
427.89	171.9171
432.53	188.0741
433.93	193.4624
439.47	215.1188
439.56	209.9375
439.89	203.7567
443.98	201.2977
444.90	220.2338
445.03	220.2570
445.03	220.2570
445.03	220.2570
445.03	220.2570
453.90	185.0148
463.38	177.9135
468.07	152.3389
473.00	177.0923
475.06	198.7375
475.35	194.5081
476.78	171.1797
477.59	167.0011
477.96	164.9071
482.03	172.9276
484.57	210.9201
487.03	145.5403
490.36	0.0000
492.35	179.6638
497.08	152.0466
507.63	0.0000
510.53	0.0000
510.84	152.4588
511.00	152.4758
511.85	152.5666
511.85	152.5666
513.99	166.7223
513.99	166.7223
520.41	163.4251
520.65	163.4540
527.90	160.9479
528.96	0.0000
529.64	169.4738
529.87	0.0000
531.02	152.0250
537.32	159.1957
543.00	146.7243
546.56	0.0000
549.76	150.2051
552.65	135.4453
555.20	142.2691
563.23	146.8073
563.90	154.4540
568.70	161.5885
569.32	162.6017
569.50	159.7695
569.67	159.7866
573.80	157.0895
574.00	162.3119
574.64	164.8793
578.91	162.3770
579.30	0.0000
583.14	147.7368
585.48	131.7606
591.81	145.5137
592.07	138.9199
593.00	142.4770
595.88	164.3935
600.56	152.3512
602.52	0.0000
602.71	163.1465
602.71	163.1465
603.60	178.2263
604.41	181.6489
604.70	190.0133
609.31	160.8810

609.31	160.8810
609.31	160.8810
609.31	160.8810
610.33	150.5284
612.46	137.3254
614.37	139.1593
618.01	145.8514
621.84	141.4717
621.84	141.4717
631.29	144.2415
633.02	148.3459
633.10	142.4180
634.78	130.6787
635.90	136.7085
636.97	140.7606
645.85	119.5679
646.12	125.5668
656.30	135.7537
657.75	125.5477
657.90	0.0000
661.65	158.5742
661.65	158.5742
664.57	0.0000
666.33	127.8869
666.33	127.8869
675.00	125.6146
677.61	109.5645
685.20	116.1384
692.80	137.0807
695.00	133.1474
696.49	132.2308
696.49	132.2308
697.00	150.7234
697.49	150.7623
698.33	165.1960
698.50	165.2124
699.00	160.1228
702.63	158.3801
706.10	152.4925
706.58	0.0000
706.67	153.5714
709.31	142.4332
711.68	136.4124
713.82	150.0180
717.42	127.4994
720.50	128.1521
721.93	0.0000
722.20	133.6095
722.78	135.4333
722.78	135.4333
722.89	135.4413
722.95	135.4439
723.30	122.9929
724.18	124.8315
727.18	130.2363
733.00	114.6563
735.90	121.4092
739.58	145.7560
742.81	131.2943
744.21	113.5173
747.13	137.8976
751.79	138.2254
752.31	135.0964
753.82	113.0170
755.35	104.6477
756.15	98.3452
756.87	118.4805
763.93	179.4146
765.79	123.2618
766.42	126.4883
766.84	136.0833
776.49	146.3499
778.00	164.6307
778.57	159.3311
778.89	146.5213
783.80	123.2895
785.46	133.0467
792.07	162.3820

795.84	111.0699
796.30	114.3308
798.80	140.6949
801.93	139.0529
805.60	104.9364
810.29	116.3396
810.76	124.7440
815.85	120.3774
817.79	110.2135
818.51	102.7759
819.60	97.2189
826.30	124.7200
828.27	0.0000
831.60	123.1460
831.96	124.1068
834.83	122.3896
836.80	0.0000
846.75	117.3809
848.13	106.0879
856.28	0.0000
856.80	118.1549
860.37	101.9135
867.32	95.3056
867.82	113.7228
871.10	106.2324
873.19	99.6256
874.81	97.7791
875.33	0.0000
876.40	98.8077
879.36	103.7398
880.27	100.8984
880.51	100.9094
881.50	95.1846
883.24	97.1815
884.67	99.1688
889.25	98.4034
896.60	114.2034
898.02	112.3366
899.00	117.2272
903.28	88.3260
911.07	111.0200
911.07	111.0200
911.07	111.0200
919.63	124.8650
920.93	123.2227
925.00	96.0039
925.24	96.9939
926.50	101.9470
935.52	101.3493
937.48	100.4472
944.10	104.6728
946.00	108.7090
949.00	101.9169
962.29	118.3920
964.01	109.7617
966.15	113.3453
968.20	198.9538
969.11	155.6328
969.11	155.6328
969.11	155.6328
977.42	110.5523
980.50	103.2281
983.50	112.3828
989.30	89.5106
996.32	95.3075
1001.03	81.8433
1001.68	81.8645
1004.76	90.3115
1021.30	0.0000
1024.50	0.0000
1034.80	95.2056
1036.00	81.9336
1037.82	103.5116
1038.57	109.6944
1038.76	0.0000
1045.16	104.8282
1046.59	105.9134
1048.07	104.9456

1050.47	113.2764
1050.47	113.2764
1062.04	84.8085
1063.62	98.3133
1076.63	95.6676
1077.35	93.6129
1078.86	83.2589
1085.78	104.3352
1099.22	101.7025
1112.02	90.3198
1112.84	101.4096
1115.52	105.1981
1120.29	86.6245
1120.29	86.6245
1120.29	86.6245
1120.29	86.6245
1120.51	86.6331
1121.28	81.3721
1124.00	0.0000
1129.67	110.4671
1131.51	0.0000
1147.95	0.0000
1167.94	121.2406
1173.22	95.0944
1175.09	97.0403
1177.93	104.6790
1189.05	105.0720
1204.90	112.2923
1205.75	0.0000
1213.00	114.5032
1221.42	136.8293
1230.97	181.4095
1235.34	114.3842
1236.41	0.0000
1238.25	117.3796
1246.25	132.1501
1260.41	0.0000
1271.85	84.6105
1274.45	89.5461
1274.54	89.5490
1291.56	100.7934
1298.22	0.0000
1312.09	64.9990
1325.50	57.3557
1325.50	57.3557
1332.49	61.4418
1333.61	67.4106
1360.21	41.9705
1362.66	0.0000
1365.15	57.0435
1368.21	69.8313
1368.53	0.0000
1376.25	51.7648
1384.27	59.0444
1394.10	70.6537
1395.20	69.6654
1407.95	52.6967
1434.06	57.1758
1436.60	39.8486
1457.56	0.0000
1460.81	41.1499
1489.15	60.1364
1509.49	41.7041
1596.49	40.3469
1620.62	36.2600
1678.03	0.0000
1691.02	24.2778
1691.02	24.2778
1706.46	0.0000
1750.46	0.0000
1764.49	22.7323
1764.49	22.7323
1764.49	22.7323
1764.49	22.7323
1770.23	21.3773
1771.40	21.3832
1791.20	0.0000
1808.65	23.9655

1836.01 29.1400

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246837004

Total Uranium Activity	2.2617E+01	ug/g
Total Uranium Counting Unc.	6.5226E+00	ug/g
Total Uranium Tpu	3.3279E-06	ug/g
Total Uranium Mda	3.0902E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 952641                    SAMPLE ID  : G246837004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   :  8-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 12:06:44.52    SAMPLE ALQT:  122.410 GRAM    *
*                                                                           *
*****************************************************************************
```

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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.736E+00
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.180E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 2.696E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.312E+00
```

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:09:26.14

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837005.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:07:14
Sample ID         : G246837005           Sample quantity  : 1.37480E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.05  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.51*	131	487	1.05	92.58	89	8	1.82E-02	31.7	
2	0	63.26*	238	693	0.97	126.08	122	8	3.30E-02	20.8	
3	2	74.84*	816	460	0.88	149.23	143	22	1.13E-01	5.3	1.16E+00
4	2	77.14*	1225	422	0.85	153.83	143	22	1.70E-01	3.9	
5	5	87.21*	488	386	0.99	173.97	164	28	6.78E-02	7.8	5.92E+00
6	5	89.91	266	357	1.07	179.37	164	28	3.70E-02	12.9	
7	5	92.73*	409	381	1.21	185.01	164	28	5.68E-02	10.4	
8	0	105.81	90	321	1.63	211.17	208	7	1.26E-02	34.5	
9	0	186.02*	202	332	1.06	371.57	366	10	2.81E-02	19.0	
10	0	209.12	104	316	0.94	417.77	414	9	1.44E-02	32.3	
11	3	238.63*	1423	178	1.00	476.78	471	18	1.98E-01	3.1	9.21E-01
12	3	241.55	311	242	1.46	482.63	471	18	4.32E-02	12.1	
13	0	270.34	129	199	1.50	540.21	536	10	1.80E-02	22.2	
14	0	277.43	70	165	1.78	554.38	550	8	9.74E-03	34.0	
15	0	295.28*	456	195	1.14	590.07	586	11	6.33E-02	7.7	
16	0	300.34	82	160	1.06	600.21	596	8	1.14E-02	28.8	
17	0	338.51*	307	250	1.30	676.54	670	14	4.26E-02	12.4	
18	0	351.88*	679	194	1.26	703.27	698	11	9.43E-02	5.6	
19	0	463.30	77	117	1.26	926.10	919	12	1.07E-02	30.3	
20	0	510.62*	98	182	1.89	1020.74	1013	17	1.36E-02	36.5	
21	0	583.10*	429	138	1.54	1165.69	1159	15	5.96E-02	7.8	
22	0	609.19*	494	109	1.47	1217.87	1210	14	6.86E-02	6.4	
23	0	727.04	74	107	1.19	1453.56	1449	10	1.02E-02	28.8	
24	0	828.42	57	68	6.91	1656.32	1646	19	7.95E-03	37.6	
25	0	860.60	49	77	1.67	1720.68	1714	13	6.83E-03	39.6	
26	0	911.23*	239	74	1.65	1821.94	1813	14	3.32E-02	10.0	
27	3	964.16	70	39	2.39	1927.81	1921	23	9.79E-03	24.1	1.18E+00
28	3	968.79*	177	38	1.92	1937.07	1921	23	2.45E-02	10.3	
29	0	1120.63	93	61	1.80	2240.75	2235	14	1.29E-02	21.2	
30	0	1460.50*	1551	26	2.01	2920.54	2910	21	2.15E-01	2.7	
31	0	1728.73	17	6	1.38	3457.03	3451	12	2.36E-03	37.7	
32	0	1764.52*	75	3	1.70	3528.63	3522	15	1.04E-02	13.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 14:09:29

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 8-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 12:07:14
Sample ID : G246837005 Sample quantity : 137.48 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.05 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.579E+01	3.601E+00	4.413E-01	3.758E-02	81.103
CD-109	+	88.03	*	3.896E+00	7.357E-01	6.447E-01	6.928E-02	6.044
SN-126	+	64.28		6.912E-01	3.082E-01	2.841E-01	4.526E-02	2.433
	+	86.94		1.592E+00	7.108E-01	2.622E-01	1.097E-01	6.073
	+	87.57	*	3.830E-01	7.232E-02	6.324E-02	6.781E-03	6.056
EU-155		48.70		-1.467E-01	3.419E-01	4.971E-01	4.732E-02	-0.295
		60.01		4.498E-01	1.603E+00	2.377E+00	2.339E-01	0.189
	+	86.54		4.613E-01	8.729E-02	7.582E-02	8.144E-03	6.084
	+	105.31	*	1.362E-01	9.533E-02	1.170E-01	1.384E-02	1.163
TL-208	+	277.35		5.944E-01	4.124E-01	5.302E-01	7.531E-02	1.121
	+	510.84		4.415E-01	3.274E-01	2.057E-01	2.724E-02	2.146
	+	583.14	*	5.576E-01	1.073E-01	5.591E-02	6.303E-03	9.972
	+	860.37		6.103E-01	4.879E-01	4.864E-01	5.085E-02	1.255
BI-210	+	46.50	*	9.640E-01	6.193E-01	5.837E-01	6.019E-02	1.651
PB-210	+	46.50	*	9.640E-01	6.193E-01	5.837E-01	6.019E-02	1.651
PO-210	+	46.50	*	9.640E-01	6.181E-01	5.837E-01	5.559E-02	1.651
BI-211		72.87		2.094E+00	1.552E+00	2.361E+00	2.384E-01	0.887
	+	351.07	*	3.688E+00	5.676E-01	2.826E-01	2.978E-02	13.049
PB-212	+	74.81		2.149E+00	3.738E-01	2.555E-01	3.527E-02	8.412
	+	77.11		1.926E+00	2.478E-01	1.531E-01	1.569E-02	12.582
	+	87.30		1.771E+00	3.785E-01	2.921E-01	4.280E-02	6.064
	+	238.63	*	1.631E+00	2.111E-01	7.611E-02	8.665E-03	21.431
	+	300.09		1.484E+00	8.750E-01	9.192E-01	1.145E-01	1.615
PO-212	+	74.81		2.149E+00	3.738E-01	2.555E-01	3.527E-02	8.412
	+	77.11		1.926E+00	2.478E-01	1.531E-01	1.569E-02	12.582
	+	87.30		1.771E+00	3.785E-01	2.921E-01	4.280E-02	6.064
		115.19		-1.409E+00	2.461E+00	4.065E+00	5.041E-01	-0.347
	+	238.63	*	1.631E+00	2.111E-01	7.611E-02	8.665E-03	21.431
	+	300.09		1.484E+00	8.750E-01	9.192E-01	1.145E-01	1.615
BI-214	+	609.31	*	1.213E+00	2.143E-01	1.053E-01	1.271E-02	11.519
	+	1120.29		1.203E+00	5.254E-01	5.482E-01	5.950E-02	2.194
	+	1764.49		1.373E+00	3.911E-01	2.388E-01	1.967E-02	5.749
PB-214	+	74.81		3.703E+00	6.086E-01	4.402E-01	5.535E-02	8.412
	+	77.11		3.302E+00	4.937E-01	2.624E-01	3.351E-02	12.582

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		3.035E+00	6.189E-01	5.005E-01	6.604E-02	6.064
	+	241.98		2.143E+00	5.782E-01	4.592E-01	5.477E-02	4.668
	+	295.21		1.439E+00	2.861E-01	1.707E-01	2.165E-02	8.431
	+	351.92	*	1.283E+00	2.085E-01	9.855E-02	1.157E-02	13.017
PO-214	+	74.81		3.703E+00	6.086E-01	4.402E-01	5.535E-02	8.412
	+	77.11		3.302E+00	4.937E-01	2.624E-01	3.351E-02	12.582
	+	87.30		3.035E+00	6.189E-01	5.005E-01	6.604E-02	6.064
	+	241.98		2.143E+00	5.782E-01	4.592E-01	5.477E-02	4.668
	+	295.21		1.439E+00	2.861E-01	1.707E-01	2.165E-02	8.431
	+	351.92	*	1.283E+00	2.085E-01	9.855E-02	1.157E-02	13.017
PO-216	+	74.81		2.149E+00	3.738E-01	2.555E-01	3.527E-02	8.412
	+	77.11		1.926E+00	2.478E-01	1.531E-01	1.569E-02	12.582
	+	87.30		1.771E+00	3.785E-01	2.921E-01	4.280E-02	6.064
	+	238.63	*	1.631E+00	2.111E-01	7.611E-02	8.665E-03	21.431
	+	300.09		1.484E+00	8.750E-01	9.192E-01	1.145E-01	1.615
PO-218	+	74.81		3.703E+00	6.086E-01	4.402E-01	5.535E-02	8.412
	+	77.11		3.302E+00	4.937E-01	2.624E-01	3.351E-02	12.582
	+	87.30		3.035E+00	6.189E-01	5.005E-01	6.604E-02	6.064
	+	241.98		2.143E+00	5.782E-01	4.592E-01	5.477E-02	4.668
	+	295.21		1.439E+00	2.861E-01	1.707E-01	2.165E-02	8.431
	+	351.92	*	1.283E+00	2.085E-01	9.855E-02	1.157E-02	13.017
RA-224	+	240.98	*	4.064E+00	1.072E+00	8.673E-01	9.114E-02	4.686
RA-226	+	609.31	*	1.213E+00	2.143E-01	1.053E-01	1.271E-02	11.519
	+	1120.29		1.203E+00	5.254E-01	5.482E-01	5.950E-02	2.194
	+	1764.49		1.373E+00	3.911E-01	2.388E-01	1.967E-02	5.749
AC-228	+	338.32		1.830E+00	8.881E-01	3.224E-01	1.344E-01	5.678
	+	911.07	*	1.405E+00	3.274E-01	2.140E-01	2.545E-02	6.564
	+	969.11		1.829E+00	5.743E-01	3.534E-01	8.340E-02	5.177
RA-228	+	338.32		1.830E+00	8.881E-01	3.224E-01	1.344E-01	5.678
	+	911.07	*	1.405E+00	3.274E-01	2.140E-01	2.545E-02	6.564
	+	969.11		1.829E+00	5.743E-01	3.534E-01	8.340E-02	5.177
TH-228	+	74.81		2.181E+00	3.210E-01	2.593E-01	2.651E-02	8.412
	+	77.11		1.955E+00	2.515E-01	1.554E-01	1.592E-02	12.582
	+	87.30		1.798E+00	3.395E-01	2.965E-01	3.176E-02	6.064
	+	238.63	*	1.656E+00	2.143E-01	7.726E-02	8.796E-03	21.431
	+	300.09		1.507E+00	1.250E+00	9.331E-01	5.568E-01	1.615
TH-230	+	609.31	*	1.213E+00	2.143E-01	1.053E-01	1.271E-02	11.519
	+	1120.29		1.203E+00	5.254E-01	5.482E-01	5.950E-02	2.194
	+	1764.49		1.373E+00	3.911E-01	2.388E-01	1.967E-02	5.749
TH-232	+	338.32		1.830E+00	4.931E-01	3.224E-01	3.360E-02	5.678
	+	911.07	*	1.405E+00	3.274E-01	2.140E-01	2.545E-02	6.564
	+	969.11		1.829E+00	5.743E-01	3.534E-01	8.340E-02	5.177
TH-234	+	63.29	*	1.746E+00	7.966E-01	6.927E-01	1.290E-01	2.521
	+	92.38		2.234E+00	6.335E-01	4.277E-01	8.262E-02	5.223
U-234	+	609.31	*	1.213E+00	2.143E-01	1.053E-01	1.271E-02	11.519
	+	1120.29		1.203E+00	5.254E-01	5.482E-01	5.950E-02	2.194
	+	1764.49		1.373E+00	3.911E-01	2.388E-01	1.967E-02	5.749
U-235	+	89.95		2.886E+00	1.176E+00	8.761E-01	2.764E-01	3.294
	+	93.35		2.686E+00	9.543E-01	5.165E-01	1.491E-01	5.199

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	105.00		1.335E+00	1.009E+00	1.119E+00	3.457E-01	1.192
		143.76	*	9.418E-02	1.667E-01	2.802E-01	5.291E-02	0.336
		163.35		8.576E-02	3.793E-01	6.248E-01	1.209E-01	0.137
	+	185.71		1.594E-01	6.246E-02	5.381E-02	5.039E-03	2.962
		205.31		-9.904E-02	4.577E-01	6.538E-01	1.284E-01	-0.151
NP-237	+	86.50	*	1.125E+00	3.146E-01	1.848E-01	4.294E-02	6.085
		95.87		-4.949E-01	5.967E-01	8.618E-01	2.210E-01	-0.574
U-238	+	63.29	*	1.746E+00	7.966E-01	6.927E-01	1.290E-01	2.521
	+	92.38		2.234E+00	5.246E-01	4.277E-01	4.694E-02	5.223
AM-243	+	74.67	*	3.484E-01	5.112E-02	4.140E-02	4.204E-03	8.416
	+	86.72		4.218E+01	7.964E+00	6.938E+00	7.409E-01	6.079
		117.66		-1.162E+00	2.597E+00	4.305E+00	5.413E-01	-0.270
		142.18		-3.359E+00	1.350E+01	2.232E+01	2.520E+00	-0.151
ANH-511	+	511.00	*	9.536E-02	7.028E-02	4.445E-02	4.575E-03	2.145

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.682E-02	3.028E-01	4.809E-01	5.092E-02	0.056
NA-22		1274.54	*	-1.681E-02	4.693E-02	7.448E-02	6.107E-03	-0.226
NA-24		1368.53	*	-1.844E-01	4.693E-02	Half-Life too short		
AL-26		1129.67		-6.278E-01	2.132E+00	3.299E+00	2.816E-01	-0.190
		1808.65	*	2.496E-02	3.260E-02	6.063E-02	4.968E-03	0.412
TI-44		67.85		-4.161E-04	1.934E-02	3.042E-02	3.028E-03	-0.014
	+	78.38	*	3.554E-01	4.573E-02	4.249E-02	4.376E-03	8.365
SC-46		889.25	*	-1.988E-02	4.042E-02	6.260E-02	5.994E-03	-0.318
	+	1120.51		2.057E-01	8.881E-02	1.240E-01	1.066E-02	1.659
V-48		944.10		2.656E-01	9.559E-01	1.585E+00	1.487E-01	0.168
		983.50	*	-3.933E-02	7.519E-02	1.147E-01	1.063E-02	-0.343
		1312.09		-2.130E-02	9.065E-02	1.451E-01	1.182E-02	-0.147
CR-51		320.08	*	1.249E-01	3.128E-01	5.381E-01	5.976E-02	0.232
MN-52		744.21		1.132E-01	2.268E-01	3.901E-01	4.215E-02	0.290
		848.13		-2.769E+00	6.979E+00	1.099E+01	1.102E+00	-0.252
		935.52		8.965E-02	2.647E-01	4.414E-01	4.150E-02	0.203
		1246.25		3.549E+00	7.541E+00	1.291E+01	1.060E+00	0.275
		1333.61		-4.173E+00	5.266E+00	7.796E+00	6.333E-01	-0.535
		1434.06	*	1.684E-01	2.157E-01	3.892E-01	3.207E-02	0.433
MN-54		834.83	*	2.036E-02	4.714E-02	6.462E-02	6.558E-03	0.315
CO-56		846.75	*	-4.583E-03	3.968E-02	6.419E-02	6.441E-03	-0.071
		977.42		-1.296E-01	3.000E+00	4.813E+00	4.470E-01	-0.027
		1037.82		-2.682E-01	3.219E-01	4.983E-01	4.729E-02	-0.538
		1175.09		5.271E-01	2.483E+00	4.183E+00	3.443E-01	0.126
		1238.25		1.602E-01	1.084E-01	1.942E-01	1.646E-02	0.825
		1360.21		-1.855E-01	1.029E+00	1.643E+00	1.341E-01	-0.113
		1771.40		-1.070E-01	2.251E-01	2.636E-01	2.170E-02	-0.406
CO-57		122.06	*	-2.027E-03	1.768E-02	2.969E-02	3.828E-03	-0.068
		136.48		1.073E-01	1.538E-01	2.640E-01	3.236E-02	0.407
CO-58		810.76	*	1.681E-03	4.278E-02	7.044E-02	7.309E-03	0.024

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59		142.65		-1.111E-01	2.123E+00	3.507E+00	3.945E-01	-0.032
		192.34		5.833E-01	7.486E-01	1.261E+00	1.767E-01	0.462
		1099.22	*	-8.069E-02	1.021E-01	1.588E-01	1.496E-02	-0.508
		1291.56		-5.823E-02	1.370E-01	2.155E-01	2.025E-02	-0.270
CO-60		1173.22		-7.517E-03	5.050E-02	8.272E-02	6.809E-03	-0.091
		1332.49	*	2.855E-03	3.965E-02	6.544E-02	5.314E-03	0.044
ZN-65		1115.52	*	3.767E-02	1.137E-01	1.691E-01	1.461E-02	0.223
GE-68		1077.35	*	1.143E+00	1.349E+00	2.401E+00	2.125E-01	0.476
AS-73		53.44	*	1.547E-01	1.701E-01	2.796E-01	2.684E-02	0.553
AS-74		595.88	*	-1.432E-02	8.839E-02	1.391E-01	1.507E-02	-0.103
		634.78		2.162E-01	3.278E-01	5.762E-01	6.336E-02	0.375
SE-75		66.05		-1.172E+00	2.018E+00	2.853E+00	3.288E-01	-0.411
		96.73		-7.923E-01	5.334E-01	7.327E-01	1.129E-01	-1.081
		121.11		1.580E-02	9.509E-02	1.615E-01	2.374E-02	0.098
		136.00		-3.063E-04	2.899E-02	4.855E-02	5.760E-03	-0.006
		198.60		-1.251E+00	1.515E+00	2.324E+00	2.440E-01	-0.538
		264.65	*	-2.776E-03	3.680E-02	5.832E-02	6.391E-03	-0.048
		279.53		6.726E-02	1.075E-01	1.584E-01	1.807E-02	0.425
		303.91		-5.879E-01	1.835E+00	2.668E+00	3.552E-01	-0.220
		400.65		-4.492E-02	2.341E-01	3.826E-01	4.425E-02	-0.117
BR-77	+	87.88		8.149E+02	1.539E+02	2.137E+02	2.295E+01	3.813
		200.40		1.626E+02	1.279E+02	2.193E+02	2.125E+01	0.742
	+	239.00		2.535E+02	3.078E+01	3.376E+01	3.536E+00	7.509
		249.79		-8.678E+00	5.381E+01	8.526E+01	9.097E+00	-0.102
		281.68		2.990E+01	8.712E+01	1.258E+02	1.402E+01	0.238
		297.23		1.988E+02	6.252E+01	8.970E+01	9.882E+00	2.216
		303.76		-2.198E+01	1.486E+02	2.194E+02	2.402E+01	-0.100
		439.47		4.326E+01	1.385E+02	2.317E+02	2.232E+01	0.187
		484.57		-1.249E+02	1.991E+02	3.069E+02	3.091E+01	-0.407
		520.65	*	6.449E+00	1.000E+01	1.691E+01	1.753E+00	0.381
		574.64		-1.571E+02	1.987E+02	2.959E+02	3.173E+01	-0.531
		578.91		3.445E+01	8.944E+01	1.302E+02	1.400E+01	0.265
		585.48		1.103E+03	2.444E+02	4.178E+02	4.505E+01	2.640
		755.35		5.717E+01	1.629E+02	2.764E+02	2.969E+01	0.207
		817.79		1.665E+01	1.339E+02	2.219E+02	2.285E+01	0.075
SR-82		698.33		2.487E+01	3.301E+01	5.778E+01	6.353E+00	0.430
		776.49	*	-4.443E-02	4.097E-01	6.696E-01	7.107E-02	-0.066
		1395.20		-7.504E+00	1.065E+01	1.554E+01	1.275E+00	-0.483
RB-83		520.41	*	2.993E-02	6.945E-02	1.157E-01	1.200E-02	0.259
		529.64		8.087E-03	9.543E-02	1.551E-01	1.619E-02	0.052
		552.65		4.145E-02	1.922E-01	3.143E-01	3.329E-02	0.132
RB-84		881.50	*	6.833E-03	7.405E-02	1.216E-01	1.175E-02	0.056
KR-85		513.99	*	7.857E+00	7.069E+00	1.108E+01	1.143E+00	0.709
SR-85		513.99	*	4.024E-02	3.620E-02	5.676E-02	5.856E-03	0.709
RB-86		1076.63	*	3.978E-01	8.636E-01	1.495E+00	1.324E-01	0.266
Y-88		898.02		7.170E-03	4.433E-02	7.308E-02	6.951E-03	0.098
		1836.01	*	-2.621E-03	3.195E-02	5.170E-02	4.225E-03	-0.051
ZR-88		392.90	*	-1.072E-02	2.808E-02	4.540E-02	4.132E-03	-0.236
Y-91		1204.90	*	-1.237E+00	2.204E+01	3.628E+01	2.985E+00	-0.034

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.63	*	-2.752E-02	3.441E-02	5.363E-02	5.889E-03	-0.513
		871.10		-7.013E-03	3.236E-02	5.158E-02	5.045E-03	-0.136
NB-95		765.79	*	4.240E-02	4.647E-02	8.107E-02	8.660E-03	0.523
NB-95M		235.69	*	-2.482E-02	1.150E-01	1.622E-01	1.859E-02	-0.153
ZR-95		724.18		5.498E-02	1.093E-01	1.653E-01	1.900E-02	0.333
		756.15	*	3.275E-02	7.172E-02	1.226E-01	1.404E-02	0.267
NB-97		657.90	*	-9.613E-02	7.172E-02	Half-Life too short		
		1024.50		-3.683E+00	7.172E-02	Half-Life too short		
ZR-97		254.15		-1.634E+00	7.172E-02	Half-Life too short		
		355.39		-1.514E+00	7.172E-02	Half-Life too short		
		507.63	*	1.627E+00	7.172E-02	Half-Life too short		
		602.52		-1.792E+00	7.172E-02	Half-Life too short		
		1021.30		1.552E+00	7.172E-02	Half-Life too short		
		1147.95		-1.844E+00	7.172E-02	Half-Life too short		
		1362.66		2.264E+00	7.172E-02	Half-Life too short		
		1750.46		1.125E+00	7.172E-02	Half-Life too short		
MO-99		140.51		4.034E+00	1.914E+01	3.220E+01	9.239E+00	0.125
		181.06		5.873E-02	1.366E+01	2.005E+01	3.730E+00	0.003
		366.43		-3.041E+00	7.285E+01	1.211E+02	1.187E+01	-0.025
		739.58	*	-1.602E+00	1.146E+01	1.876E+01	3.103E+00	-0.085
		778.00		7.085E+00	3.468E+01	5.806E+01	6.157E+00	0.122
TC-99M		140.51	*	4.427E+09	3.468E+01	Half-Life too short		
RH-101		127.23		-2.611E-03	2.385E-02	3.995E-02	5.000E-03	-0.065
		198.01	*	-2.190E-02	2.696E-02	4.133E-02	3.982E-03	-0.530
		325.23		-2.152E-01	1.970E-01	3.098E-01	3.301E-02	-0.694
RH-102		418.52		7.548E-02	2.733E-01	4.582E-01	4.309E-02	0.165
		475.06	*	6.413E-03	2.550E-02	4.236E-02	4.230E-03	0.151
		631.29		-5.210E-03	5.161E-02	8.602E-02	9.449E-03	-0.061
		697.49		6.422E-02	7.505E-02	1.321E-01	1.453E-02	0.486
		766.84		9.395E-02	1.213E-01	2.097E-01	2.238E-02	0.448
		1046.59		-1.398E-01	1.188E-01	1.768E-01	1.593E-02	-0.790
		1112.84		1.741E-01	2.637E-01	4.327E-01	3.741E-02	0.402
RU-103		497.08	*	-3.168E-02	3.868E-02	5.827E-02	8.834E-03	-0.544
	+	610.33		1.308E+01	2.892E+00	2.914E+00	5.237E-01	4.487
RH-106	+	511.85		4.762E-01	3.510E-01	4.054E-01	4.175E-02	1.175
		621.84	*	5.063E-02	3.035E-01	5.165E-01	7.730E-02	0.098
		1050.47		5.323E-01	2.535E+00	4.317E+00	3.881E-01	0.123
RU-106	+	511.85		4.762E-01	3.510E-01	4.054E-01	4.175E-02	1.175
		621.84	*	5.063E-02	3.035E-01	5.165E-01	5.655E-02	0.098
		1050.47		5.323E-01	2.535E+00	4.317E+00	3.881E-01	0.123
AG-108M		433.93	*	-2.620E-02	3.085E-02	4.753E-02	4.696E-03	-0.551
		614.37		3.553E-02	4.049E-02	6.435E-02	7.200E-03	0.552
		722.95		-3.608E-02	4.855E-02	6.387E-02	7.137E-03	-0.565
AG-110M		657.75	*	-4.575E-02	3.625E-02	5.443E-02	6.134E-03	-0.841
		677.61		1.953E-01	3.098E-01	5.394E-01	6.063E-02	0.362
		706.67		-5.837E-02	2.153E-01	3.508E-01	3.913E-02	-0.166
		763.93		-1.881E-01	1.842E-01	2.795E-01	3.044E-02	-0.673
		884.67		4.128E-02	5.304E-02	9.189E-02	9.078E-03	0.449
		937.48		-1.672E-01	1.198E-01	1.657E-01	1.605E-02	-1.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1384.27		-6.648E-03	1.675E-01	2.717E-01	2.294E-02	-0.024
IN-111		171.28		2.620E-02	7.682E-01	1.268E+00	1.146E-01	0.021
		245.39	*	-2.789E-01	9.830E-01	1.364E+00	1.445E-01	-0.204
IN-113M		391.69	*	-4.642E-03	4.121E-02	6.784E-02	6.336E-03	-0.068
SN-113		391.69	*	-4.642E-03	4.121E-02	6.784E-02	6.336E-03	-0.068
IN-114M		190.27	*	-6.279E-02	1.573E-01	2.236E-01	2.116E-02	-0.281
CD-115		260.90		-2.056E+00	1.049E+02	1.670E+02	1.814E+01	-0.012
		492.35		7.823E+00	3.288E+01	5.436E+01	5.512E+00	0.144
		527.90	*	1.496E+00	9.592E+00	1.568E+01	1.635E+00	0.095
SN-117M		156.02		-3.298E+00	1.826E+00	2.743E+00	2.736E-01	-1.202
		158.56	*	4.032E-02	4.307E-02	7.390E-02	7.175E-03	0.546
SB-122		563.90	*	6.603E-01	2.087E+00	3.426E+00	3.653E-01	0.193
		692.80		8.292E+00	3.934E+01	6.659E+01	7.333E+00	0.125
I-123		159.00	*	2.097E+00	3.934E+01	Half-Life too short		
		528.96		2.552E+02	3.934E+01	Half-Life too short		
TE-123M		159.00	*	1.193E-02	2.251E-02	3.809E-02	3.698E-03	0.313
I-124		602.71	*	-2.332E-01	6.857E-01	9.717E-01	1.056E-01	-0.240
		722.78		-3.325E+00	4.907E+00	6.506E+00	7.095E-01	-0.511
		1325.50		-1.090E+00	3.399E+01	5.545E+01	4.509E+00	-0.020
		1376.25		3.380E+01	3.061E+01	5.588E+01	4.571E+00	0.605
		1509.49		8.342E-01	1.755E+01	2.845E+01	2.360E+00	0.029
		1691.02		-2.152E+00	3.143E+00	4.414E+00	3.659E-01	-0.488
SB-124		602.71		-1.379E-02	4.055E-02	5.746E-02	6.246E-03	-0.240
		645.85		1.864E-01	5.034E-01	8.651E-01	9.899E-02	0.215
		709.31		1.583E+00	2.986E+00	5.136E+00	5.628E-01	0.308
		713.82		7.152E-01	1.759E+00	3.001E+00	4.140E-01	0.238
		722.78		-2.850E-01	4.206E-01	5.577E-01	6.165E-02	-0.511
	+	968.20		1.881E+01	4.269E+00	7.429E+00	6.920E-01	2.532
		1045.16		-2.576E+00	2.593E+00	3.816E+00	3.441E-01	-0.675
		1325.50		-9.980E-02	3.112E+00	5.077E+00	4.128E-01	-0.020
		1368.21		-9.868E-01	1.798E+00	2.716E+00	3.584E-01	-0.363
		1436.60		2.898E+00	3.356E+00	6.139E+00	5.061E-01	0.472
		1691.02	*	-4.351E-02	6.355E-02	8.925E-02	7.715E-03	-0.488
SB-125		427.89	*	4.060E-02	8.222E-02	1.397E-01	1.349E-02	0.291
	+	463.38		6.710E-01	4.126E-01	5.071E-01	5.308E-02	1.323
		600.56		1.466E-01	1.699E-01	2.888E-01	3.284E-02	0.507
		635.90		1.225E-02	2.546E-01	4.289E-01	4.956E-02	0.029
TE-125M		109.28	*	1.084E+00	6.967E+00	1.074E+01	1.426E+00	0.101
I-126		388.63		-2.480E-02	1.819E-01	2.991E-01	2.746E-02	-0.083
		666.33	*	-5.548E-02	1.951E-01	3.198E-01	3.540E-02	-0.173
		753.82		-9.681E-01	1.505E+00	2.352E+00	2.529E-01	-0.412
SB-126		223.80		-2.498E+00	3.482E+00	5.400E+00	5.495E-01	-0.463
	+	278.60		3.906E+00	2.688E+00	3.753E+00	4.185E-01	1.041
	+	296.50		1.424E+01	2.687E+00	3.264E+00	3.598E-01	4.363
		414.70		-1.303E-02	7.055E-02	1.150E-01	1.076E-02	-0.113
		415.30		3.699E+00	5.919E+00	1.012E+01	9.481E-01	0.365
		555.20		4.443E-01	3.723E+00	6.042E+00	6.410E-01	0.074
		573.80		-1.601E-01	9.944E-01	1.571E+00	1.684E-01	-0.102
		593.00		5.457E-02	8.101E-01	1.302E+00	1.409E-01	0.042

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		656.30		-3.042E+00	3.248E+00	5.015E+00	5.549E-01	-0.607
		666.33		-2.318E-02	8.151E-02	1.336E-01	1.479E-02	-0.173
		675.00		-7.449E-01	2.032E+00	3.299E+00	3.647E-01	-0.226
		695.00		-1.232E-01	7.792E-02	1.116E-01	1.228E-02	-1.103
		697.00		9.981E-03	2.612E-01	4.361E-01	4.797E-02	0.023
		720.50	*	-5.538E-02	1.476E-01	2.228E-01	2.432E-02	-0.249
		856.80		1.720E-01	5.595E-01	8.190E-01	8.135E-02	0.210
		989.30		3.117E-01	1.275E+00	2.102E+00	1.944E-01	0.148
		1034.80		-1.363E+00	9.209E+00	1.525E+01	1.383E+00	-0.089
		1213.00		-4.643E+00	5.087E+00	7.755E+00	6.380E-01	-0.599
SB-127		61.10		2.751E+00	1.923E+01	2.828E+01	3.422E+00	0.097
		252.40		-4.843E-01	3.577E+00	5.663E+00	2.407E+00	-0.086
		290.80		1.802E+00	1.849E+01	2.794E+01	3.667E+00	0.065
		411.60		-4.585E+00	1.104E+01	1.769E+01	2.849E+00	-0.259
		444.90		-4.043E+00	9.341E+00	1.484E+01	1.968E+00	-0.272
		473.00		-1.317E+00	1.498E+00	2.257E+00	3.109E-01	-0.583
		543.00		6.839E+00	1.576E+01	2.619E+01	4.082E+00	0.261
		603.60		-3.889E+00	1.152E+01	1.630E+01	2.303E+00	-0.239
		685.20	*	1.832E+00	1.415E+00	2.535E+00	3.365E-01	0.723
		698.50		7.713E+00	1.471E+01	2.532E+01	4.356E+00	0.305
		722.20		-1.898E+01	3.261E+01	4.366E+01	5.667E+00	-0.435
		783.80		4.103E+00	3.618E+00	6.407E+00	8.848E-01	0.640
XE-127		57.60		-7.191E-01	1.601E+00	2.492E+00	2.430E-01	-0.289
		145.22		3.011E-01	5.291E-01	9.008E-01	9.924E-02	0.334
		172.10		-7.394E-02	9.750E-02	1.547E-01	1.401E-02	-0.478
		202.84	*	9.206E-03	3.795E-02	6.245E-02	6.083E-03	0.147
		374.96		-1.105E-02	1.766E-01	2.927E-01	2.803E-02	-0.038
I-131		80.18		-2.508E+00	2.644E+00	3.606E+00	3.757E-01	-0.696
		284.30		2.779E-01	1.303E+00	2.089E+00	2.398E-01	0.133
		364.48	*	-2.000E-02	9.830E-02	1.618E-01	1.660E-02	-0.124
		636.97		-8.196E-01	1.431E+00	2.288E+00	2.605E-01	-0.358
		722.89		-5.290E+00	7.989E+00	1.062E+01	1.162E+00	-0.498
TE-132		49.72		1.945E+00	2.765E+00	4.263E+00	4.928E-01	0.456
		111.76		-4.179E-01	1.930E+01	3.273E+01	4.522E+00	-0.013
		116.30		9.085E+00	1.836E+01	3.160E+01	4.454E+00	0.287
		228.16	*	-6.170E-01	5.790E-01	8.651E-01	1.441E-01	-0.713
BA-133		53.15		9.360E-01	7.081E-01	1.179E+00	1.131E-01	0.794
		79.62		-6.562E-01	7.479E-01	1.019E+00	1.657E-01	-0.644
		81.00		-7.336E-02	5.826E-02	7.647E-02	1.293E-02	-0.959
	+	276.40		5.874E-01	4.099E-01	5.557E-01	8.925E-02	1.057
		302.84		-1.659E-02	1.217E-01	1.799E-01	2.683E-02	-0.092
		356.01	*	-1.550E-02	4.173E-02	5.933E-02	8.412E-03	-0.261
		383.85		3.661E-01	2.744E-01	4.848E-01	6.349E-02	0.755
I-133	+	510.53		8.871E-01	2.744E-01	Half-Life too short		
		529.87	*	-2.472E-03	2.744E-01	Half-Life too short		
		706.58		-7.814E-02	2.744E-01	Half-Life too short		
		856.28		-6.436E-02	2.744E-01	Half-Life too short		
		875.33		1.964E-02	2.744E-01	Half-Life too short		
		1236.41		1.426E+00	2.744E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		1298.22		5.198E-02	2.744E-01	Half-Life too short		
CS-134		475.35		6.024E-01	1.681E+00	2.814E+00	2.811E-01	0.214
		563.23		-2.383E-02	3.702E-01	5.911E-01	6.340E-02	-0.040
		569.32		4.528E-02	2.023E-01	3.229E-01	3.484E-02	0.140
		604.70		-1.742E-02	3.385E-02	4.690E-02	5.110E-03	-0.371
		795.84	*	1.218E-01	5.480E-02	1.009E-01	1.062E-02	1.207
		801.93		-3.896E-01	4.434E-01	6.726E-01	7.041E-02	-0.579
		1038.57		-1.436E+00	3.999E+00	6.493E+00	5.874E-01	-0.221
		1167.94		7.961E-01	2.808E+00	4.758E+00	3.935E-01	0.167
		1365.15		-1.204E+00	1.338E+00	1.848E+00	1.586E-01	-0.651
CS-135		268.24	*	9.681E-02	1.518E-01	2.245E-01	2.710E-02	0.431
I-135		288.45		2.966E+09	1.518E-01	Half-Life too short		
		417.63		1.358E+10	1.518E-01	Half-Life too short		
		546.56		-7.915E+09	1.518E-01	Half-Life too short		
		836.80		-2.390E+09	1.518E-01	Half-Life too short		
		1038.76		-4.284E+08	1.518E-01	Half-Life too short		
		1124.00		5.339E+09	1.518E-01	Half-Life too short		
		1131.51		-1.504E+09	1.518E-01	Half-Life too short		
		1260.41	*	-6.506E+09	1.518E-01	Half-Life too short		
		1457.56		7.170E+11	1.518E-01	Half-Life too short		
		1678.03		-2.342E+09	1.518E-01	Half-Life too short		
		1706.46		2.924E+08	1.518E-01	Half-Life too short		
		1791.20		-4.236E+08	1.518E-01	Half-Life too short		
CS-136		66.91		-7.477E-02	3.385E-01	4.871E-01	7.894E-02	-0.153
	+	86.29		4.969E+00	1.051E+00	1.242E+00	1.776E-01	4.001
		153.22		9.493E-01	5.148E-01	9.013E-01	1.002E-01	1.053
		163.89		2.969E-01	8.701E-01	1.441E+00	1.458E-01	0.206
		176.55		-1.789E-01	3.022E-01	4.830E-01	4.649E-02	-0.370
		273.65		-3.895E-02	5.133E-01	5.610E-01	6.463E-02	-0.069
		340.57		2.460E-01	1.289E-01	2.114E-01	2.238E-02	1.164
		818.51		-7.028E-03	8.236E-02	1.262E-01	1.300E-02	-0.056
		1048.07	*	-3.693E-03	1.122E-01	1.875E-01	1.754E-02	-0.020
		1235.34		9.339E-01	7.280E-01	1.284E+00	1.485E-01	0.727
BA-137M		661.65	*	-1.161E-02	4.075E-02	6.957E-02	7.707E-03	-0.167
CS-137		661.65	*	-1.227E-02	4.307E-02	7.355E-02	8.156E-03	-0.167
CE-139		165.85	*	3.517E-03	2.352E-02	3.911E-02	3.488E-03	0.090
BA-140		162.64		-1.146E-01	5.987E-01	9.696E-01	9.444E-02	-0.118
		304.84		-5.646E-01	1.073E+00	1.605E+00	4.626E-01	-0.352
		423.70		-9.781E-02	1.641E+00	2.691E+00	8.787E-01	-0.036
		537.32	*	-7.524E-02	2.343E-01	3.649E-01	1.229E-01	-0.206
LA-140		328.77		5.963E-01	2.671E-01	4.842E-01	5.323E-02	1.231
		432.53		-1.504E+00	1.917E+00	2.969E+00	2.951E-01	-0.506
		487.03		1.608E-01	1.238E-01	2.192E-01	2.312E-02	0.734
		751.79		-9.619E-01	1.712E+00	2.692E+00	3.100E-01	-0.357
		815.85		-1.120E-01	3.456E-01	5.511E-01	6.150E-02	-0.203
		867.82		2.520E-01	1.350E+00	2.120E+00	2.166E-01	0.119
		919.63		-1.252E+00	2.805E+00	4.341E+00	4.914E-01	-0.288
		925.24		-8.457E-01	1.221E+00	1.845E+00	1.831E-01	-0.458
		1596.49	*	-5.291E-02	8.226E-02	1.238E-01	1.029E-02	-0.427

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CE-141		145.44	*	-1.339E-05	4.831E-02	8.055E-02	8.959E-03	0.000
CE-143		57.37		-1.634E-04	4.831E-02	Half-Life too short		
		231.56		-6.531E-04	4.831E-02	Half-Life too short		
		293.26	*	3.444E-04	4.831E-02	Half-Life too short		
	+	350.59		2.763E-02	4.831E-02	Half-Life too short		
		490.36		-2.119E-03	4.831E-02	Half-Life too short		
		664.57		-8.488E-04	4.831E-02	Half-Life too short		
		721.93		-1.168E-03	4.831E-02	Half-Life too short		
CE-144		80.11		-1.159E+00	1.227E+00	1.674E+00	1.736E-01	-0.692
		133.54	*	-1.065E-01	1.484E-01	2.394E-01	4.232E-02	-0.445
PM-144		476.78		-1.198E-02	6.391E-02	9.939E-02	1.064E-02	-0.121
		618.01		-9.252E-03	3.131E-02	5.156E-02	5.735E-03	-0.179
		696.49	*	-1.542E-02	3.365E-02	5.400E-02	5.941E-03	-0.286
		778.57		-1.540E-02	2.422E+00	3.989E+00	4.229E-01	-0.004
PR-144		696.49	*	-1.045E+00	2.280E+00	3.659E+00	4.025E-01	-0.286
		1489.15		-1.689E+00	1.062E+01	1.671E+01	1.384E+00	-0.101
PM-146		453.90	*	2.145E-02	4.161E-02	7.035E-02	8.215E-03	0.305
		633.02		5.241E-01	1.319E+00	2.254E+00	8.563E-01	0.232
		735.90		6.079E-02	1.485E-01	2.522E-01	7.402E-02	0.241
		747.13		-7.403E-02	9.319E-02	1.428E-01	2.209E-02	-0.518
ND-147	+	91.11		7.194E-01	2.029E-01	3.010E-01	3.455E-02	2.390
		319.41		2.017E-01	2.763E+00	4.676E+00	5.025E-01	0.043
		439.89		3.863E+00	5.620E+00	9.613E+00	9.265E-01	0.402
		531.02	*	-5.916E-01	5.608E-01	8.147E-01	1.309E-01	-0.726
PM-149		285.90	*	-8.395E+00	7.758E+01	1.218E+02	2.078E+01	-0.069
EU-152		121.78		1.333E-02	5.098E-02	8.688E-02	1.197E-02	0.153
		244.69		-5.851E-03	3.114E-01	4.414E-01	4.669E-02	-0.013
		344.27	*	9.856E-03	9.275E-02	1.381E-01	1.483E-02	0.071
		443.98		-2.956E-01	9.173E-01	1.470E+00	1.423E-01	-0.201
		778.89		-1.605E-02	2.785E-01	4.568E-01	4.841E-02	-0.035
		867.32		-6.300E-02	8.785E-01	1.286E+00	1.264E-01	-0.049
	+	964.01		8.391E-01	4.118E-01	5.727E-01	5.342E-02	1.465
		1085.78		-9.378E-02	4.288E-01	6.894E-01	6.070E-02	-0.136
		1112.02		9.278E-02	3.573E-01	5.951E-01	5.148E-02	0.156
		1407.95		6.798E-02	1.676E-01	2.881E-01	2.367E-02	0.236
GD-153		69.67		-2.958E-01	7.918E-01	1.131E+00	1.131E-01	-0.262
		83.37		2.364E+01	9.092E+00	1.414E+01	1.487E+00	1.671
		97.43	*	-5.138E-02	5.380E-02	7.769E-02	8.750E-03	-0.661
		103.18		-8.651E-03	7.059E-02	1.078E-01	1.251E-02	-0.080
EU-154		123.07		-2.119E-02	3.688E-02	6.050E-02	8.959E-03	-0.350
		247.94		-2.453E-01	3.095E-01	4.696E-01	6.133E-02	-0.522
		591.81		-2.511E-01	5.610E-01	8.567E-01	1.146E-01	-0.293
		723.30		-1.362E-01	2.039E-01	2.711E-01	3.154E-02	-0.503
		756.87		7.379E-01	7.927E-01	1.393E+00	1.891E-01	0.530
		873.19		-5.035E-02	2.869E-01	4.593E-01	6.004E-02	-0.110
		996.32		-4.183E-01	4.056E-01	5.744E-01	1.038E-01	-0.728
		1004.76		-1.581E-01	2.377E-01	3.567E-01	4.305E-02	-0.443
		1274.45	*	-4.500E-02	1.313E-01	2.087E-01	2.293E-02	-0.216
TB-160	+	86.79		1.231E+00	2.324E-01	3.302E-01	3.528E-02	3.727

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-6.624E-01	4.636E-01	6.830E-01	6.566E-02	-0.970
		215.65		1.235E-01	6.214E-01	1.016E+00	1.017E-01	0.122
		298.57		2.866E-01	1.272E-01	1.753E-01	1.929E-02	1.635
		879.36	*	-1.345E-01	1.494E-01	2.219E-01	2.150E-02	-0.606
		962.29		1.106E+00	5.898E-01	9.948E-01	9.285E-02	1.112
		966.15		1.055E+00	2.723E-01	5.144E-01	4.795E-02	2.052
		1177.93		-3.106E-02	4.097E-01	6.748E-01	5.554E-02	-0.046
		1271.85		1.802E-01	7.309E-01	1.231E+00	1.008E-01	0.146
HO-166M		80.57		-1.785E-01	1.580E-01	2.127E-01	2.210E-02	-0.839
		184.41		2.753E-02	3.120E-02	4.929E-02	4.601E-03	0.558
		280.46		3.247E-02	8.332E-02	1.208E-01	1.348E-02	0.269
		410.95		2.360E-01	2.185E-01	3.834E-01	3.572E-02	0.615
		711.68	*	1.652E-02	6.638E-02	1.121E-01	1.228E-02	0.147
		752.31		-2.542E-01	2.808E-01	4.273E-01	4.598E-02	-0.595
		810.29		-8.047E-03	6.444E-02	1.047E-01	1.085E-02	-0.077
TM-171		51.35		-6.561E+00	5.142E+00	7.744E+00	7.395E-01	-0.847
		52.39		1.520E+00	2.915E+00	4.737E+00	4.534E-01	0.321
		59.40		5.115E+00	8.137E+00	1.226E+01	1.205E+00	0.417
		66.72	*	-2.236E+00	1.222E+01	1.763E+01	1.750E+00	-0.127
LU-176	+	88.36		9.084E-01	1.715E-01	2.217E-01	2.386E-02	4.098
		201.83		-1.207E-03	2.334E-02	3.790E-02	3.683E-03	-0.032
		306.84	*	5.544E-03	1.966E-02	3.376E-02	3.684E-03	0.164
		401.10		-2.689E+00	6.127E+00	9.846E+00	9.059E-01	-0.273
LU-177		112.95		5.249E-01	1.098E+00	1.860E+00	2.278E-01	0.282
	+	208.36	*	2.070E+00	1.353E+00	1.665E+00	1.641E-01	1.243
LU-177M		52.97		3.068E-01	3.172E-01	5.228E-01	5.011E-02	0.587
		54.07		1.771E-01	1.797E-01	2.960E-01	2.846E-02	0.598
		61.30		2.269E-02	5.175E-01	7.577E-01	7.461E-02	0.030
		121.62		1.066E-01	2.617E-01	4.483E-01	5.763E-02	0.238
		147.16		-2.550E-01	4.922E-01	8.008E-01	8.679E-02	-0.318
		171.86		-2.221E-01	3.902E-01	6.255E-01	5.659E-02	-0.355
		218.09		-6.949E-01	7.256E-01	1.111E+00	1.117E-01	-0.626
		268.79		6.553E-01	8.093E-01	1.206E+00	1.326E-01	0.543
		319.02		7.196E-02	2.161E-01	3.708E-01	3.986E-02	0.194
		367.43		2.803E-01	8.120E-01	1.380E+00	1.349E-01	0.203
		413.65	*	-1.239E-01	1.674E-01	2.626E-01	2.454E-02	-0.472
HF-181		56.28		6.825E-02	2.217E-01	3.592E-01	3.482E-02	0.190
		57.53		-9.049E-02	1.354E-01	2.086E-01	2.033E-02	-0.434
		65.20		1.312E-01	3.662E-01	5.422E-01	5.366E-02	0.242
		133.02		-3.613E-04	4.687E-02	7.860E-02	9.482E-03	-0.005
		136.25		5.842E-02	3.403E-01	5.738E-01	6.771E-02	0.102
		345.85		-5.605E-02	1.772E-01	2.691E-01	2.764E-02	-0.208
		482.03	*	-2.239E-02	3.714E-02	5.736E-02	5.764E-03	-0.390
W-181		56.28		2.668E-02	8.689E-02	1.408E-01	1.365E-02	0.190
		57.53		-3.554E-02	5.310E-02	8.181E-02	7.973E-03	-0.434
		65.20	*	5.105E-02	1.425E-01	2.110E-01	2.088E-02	0.242
TA-182		67.75		-1.353E-02	4.617E-02	7.189E-02	7.153E-03	-0.188
		100.10		6.257E-02	1.123E-01	1.953E-01	2.231E-02	0.320
		152.43		1.033E-01	2.624E-01	4.428E-01	4.575E-02	0.233

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		222.10		7.184E-02	2.923E-01	4.779E-01	4.847E-02	0.150
		1001.68		2.532E+00	2.132E+00	3.777E+00	3.475E-01	0.670
	+	1121.28		5.684E-01	2.454E-01	3.391E-01	2.914E-02	1.676
		1189.05		2.699E-01	3.563E-01	6.216E-01	5.116E-02	0.434
		1221.42	*	-1.409E-01	2.265E-01	3.559E-01	2.927E-02	-0.396
		1230.97		-2.645E-01	5.890E-01	9.410E-01	7.735E-02	-0.281
RE-183		57.98		-1.639E-02	5.291E-02	8.282E-02	8.088E-03	-0.198
		59.32		1.184E-02	3.364E-02	5.008E-02	4.922E-03	0.236
		67.20		-1.486E-02	8.093E-02	1.266E-01	1.258E-02	-0.117
		162.32	*	-4.546E-02	8.818E-02	1.406E-01	1.309E-02	-0.323
	+	208.81		1.880E+00	1.230E+00	1.531E+00	1.510E-01	1.228
		291.72		-1.941E-01	8.208E-01	1.209E+00	1.338E-01	-0.161
RE-184		57.98		-6.045E-02	1.951E-01	3.054E-01	2.982E-02	-0.198
		59.32		4.364E-02	1.239E-01	1.845E-01	1.814E-02	0.236
		67.20		-5.479E-02	2.983E-01	4.667E-01	4.637E-02	-0.117
		161.27		-2.837E-01	2.822E-01	4.443E-01	4.185E-02	-0.639
		216.55		-1.694E-02	2.245E-01	3.621E-01	3.631E-02	-0.047
		252.85	*	-1.441E-01	2.006E-01	3.059E-01	3.281E-02	-0.471
		318.01		-8.977E-02	3.859E-01	6.422E-01	6.912E-02	-0.140
		792.07		-3.511E-01	1.072E+00	1.718E+00	1.805E-01	-0.204
		903.28		-1.813E-02	1.261E+00	1.765E+00	1.670E-01	-0.010
		920.93		-5.428E-02	4.678E-01	7.500E-01	7.075E-02	-0.072
OS-185		59.72		3.995E-02	9.284E-02	1.386E-01	1.364E-02	0.288
		61.14		-2.466E-03	5.642E-02	8.228E-02	8.101E-03	-0.030
		69.30		1.221E-02	1.276E-01	2.023E-01	2.021E-02	0.060
		592.07		-8.287E-01	2.302E+00	3.551E+00	3.841E-01	-0.233
		646.12	*	1.227E-02	4.256E-02	7.277E-02	8.029E-03	0.169
		717.42		3.537E-01	9.090E-01	1.552E+00	1.696E-01	0.228
		874.81		1.296E-01	5.689E-01	9.473E-01	9.227E-02	0.137
		880.27		-2.815E-01	8.188E-01	1.291E+00	1.249E-01	-0.218
RE-188		155.03	*	-2.263E-02	1.342E-01	2.212E-01	2.228E-02	-0.102
		477.96		8.771E-01	2.871E+00	4.632E+00	4.637E-01	0.189
		633.10		1.145E+00	2.642E+00	4.574E+00	5.027E-01	0.250
W-188	+	63.58		7.010E+01	3.000E+01	3.640E+01	3.593E+00	1.926
		227.08		-7.478E+00	1.074E+01	1.663E+01	1.703E+00	-0.450
		290.67	*	4.882E-01	6.548E+00	9.880E+00	1.094E+00	0.049
IR-192	+	295.96		1.096E+00	2.072E-01	2.676E-01	2.964E-02	4.097
		308.46		2.761E-02	7.942E-02	1.367E-01	1.493E-02	0.202
		316.51	*	-1.737E-02	3.011E-02	4.910E-02	5.303E-03	-0.354
		468.07		2.938E-02	6.438E-02	9.643E-02	1.009E-02	0.305
		604.41		-1.802E-01	4.610E-01	6.483E-01	9.472E-02	-0.278
		612.46		6.871E-01	7.741E-01	1.223E+00	1.461E-01	0.562
AU-195		65.12		2.113E-02	6.575E-02	9.721E-02	9.619E-03	0.217
		66.83		-9.392E-03	4.076E-02	5.867E-02	5.825E-03	-0.160
	+	75.70		1.127E+00	1.654E-01	2.441E-01	2.488E-02	4.617
		98.88	*	2.321E-01	1.440E-01	2.519E-01	2.859E-02	0.921
		129.76		3.819E+00	2.217E+00	3.875E+00	4.774E-01	0.986
TL-200		367.94	*	2.257E-04	2.217E+00	Half-Life too short		
		579.30		2.252E-03	2.217E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	828.27		1.158E-02	2.217E+00	Half-Life too short		
		1205.75		5.386E-04	2.217E+00	Half-Life too short		
TL-201		68.90		1.658E+00	1.957E+00	3.178E+00	3.171E-01	0.522
		70.82		-7.999E-01	1.291E+00	1.819E+00	1.825E-01	-0.440
		80.30		-2.856E+00	2.839E+00	3.856E+00	4.002E-01	-0.741
		135.34		-3.482E+00	1.749E+01	2.905E+01	3.450E+00	-0.120
		167.43	*	-2.928E+00	5.378E+00	8.649E+00	7.737E-01	-0.338
TL-202		68.90		1.520E-01	1.794E-01	2.913E-01	2.907E-02	0.522
		70.82		-7.313E-02	1.181E-01	1.663E-01	1.668E-02	-0.440
		80.30		-2.612E-01	2.596E-01	3.527E-01	3.660E-02	-0.741
		439.56	*	5.024E-02	6.714E-02	1.152E-01	1.110E-02	0.436
HG-203		70.83		-3.186E-01	5.153E-01	7.242E-01	1.053E-01	-0.440
		72.87		4.159E-01	3.109E-01	4.689E-01	6.662E-02	0.887
		82.60		7.715E-01	7.033E-01	9.364E-01	1.403E-01	0.824
		279.20	*	3.327E-02	4.038E-02	6.025E-02	6.838E-03	0.552
BI-207		72.80		1.031E-01	8.967E-02	1.357E-01	1.370E-02	0.760
	+	74.97		6.254E-01	9.176E-02	1.277E-01	1.298E-02	4.897
		84.90		2.908E-01	1.164E-01	1.808E-01	1.914E-02	1.609
		569.67		2.468E-03	3.122E-02	4.927E-02	5.270E-03	0.050
		1063.62	*	2.215E-02	5.753E-02	9.914E-02	8.848E-03	0.223
		1770.23		5.643E-03	4.507E-01	6.387E-01	5.259E-02	0.009
TL-207		81.07		-1.656E-01	1.268E-01	1.685E-01	1.755E-02	-0.983
		83.78		2.426E-01	7.946E-02	1.240E-01	1.307E-02	1.956
		94.90		1.568E-01	1.412E-01	2.279E-01	2.534E-02	0.688
		122.32		-3.056E-02	1.216E+00	2.050E+00	2.727E-01	-0.015
		144.24		2.653E-01	5.394E-01	9.077E-01	1.082E-01	0.292
		154.21		3.201E-01	3.112E-01	5.353E-01	5.831E-02	0.598
	+	269.46		5.368E-01	2.463E-01	3.043E-01	3.392E-02	1.764
		323.87	*	-6.871E-01	5.939E-01	9.129E-01	1.715E-01	-0.753
	+	338.28		7.643E+00	2.166E+00	2.400E+00	3.272E-01	3.185
		445.03		-3.282E-02	2.160E+00	3.538E+00	4.554E-01	-0.009
PO-209		260.50		-6.724E-01	8.107E+00	1.286E+01	1.396E+00	-0.052
		262.80		-5.767E+00	2.292E+01	3.595E+01	3.917E+00	-0.160
		896.60	*	2.698E+00	8.341E+00	1.392E+01	1.321E+00	0.194
PB-211		404.84	*	4.782E-02	8.505E-01	1.410E+00	8.848E-01	0.034
		427.08		-5.310E-01	1.848E+00	2.931E+00	1.825E+00	-0.181
		831.96		-7.623E-01	1.507E+00	1.887E+00	1.187E+00	-0.404
BI-212	+	727.18	*	8.321E-01	4.889E-01	6.972E-01	8.377E-02	1.193
		785.46		8.988E-01	1.736E+00	2.974E+00	3.138E-01	0.302
		1620.62		2.502E+00	1.393E+00	2.802E+00	2.329E-01	0.893
PO-215		81.07		-1.656E-01	1.268E-01	1.685E-01	1.755E-02	-0.983
		83.78		2.426E-01	7.946E-02	1.240E-01	1.307E-02	1.956
		94.90		1.568E-01	1.412E-01	2.279E-01	2.534E-02	0.688
		122.32		-3.056E-02	1.216E+00	2.050E+00	2.727E-01	-0.015
		144.24		2.653E-01	5.394E-01	9.077E-01	1.082E-01	0.292
		154.21		3.201E-01	3.112E-01	5.353E-01	5.831E-02	0.598
	+	269.46		5.368E-01	2.463E-01	3.043E-01	3.392E-02	1.764
		323.87	*	-6.871E-01	5.939E-01	9.129E-01	1.715E-01	-0.753
	+	338.28		7.643E+00	2.166E+00	2.400E+00	3.272E-01	3.185

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-3.282E-02	2.160E+00	3.538E+00	4.554E-01	-0.009
RN-219	+	271.23		6.887E-01	3.181E-01	3.887E-01	4.820E-02	1.772
		401.81	*	8.012E-02	3.800E-01	6.364E-01	9.783E-02	0.126
RN-220		549.76	*	-1.076E+01	2.612E+01	4.058E+01	4.291E+00	-0.265
RA-223		81.07		-1.656E-01	1.268E-01	1.685E-01	1.755E-02	-0.983
		83.78		2.426E-01	7.946E-02	1.240E-01	1.307E-02	1.956
		94.90		1.568E-01	1.412E-01	2.279E-01	2.534E-02	0.688
		122.32		-3.056E-02	1.216E+00	2.050E+00	2.727E-01	-0.015
		144.24		2.653E-01	5.394E-01	9.077E-01	1.082E-01	0.292
		154.21		3.201E-01	3.112E-01	5.353E-01	5.831E-02	0.598
	+	269.46		5.368E-01	2.463E-01	3.043E-01	3.392E-02	1.764
		323.87	*	-6.871E-01	5.939E-01	9.129E-01	1.715E-01	-0.753
	+	338.28		7.643E+00	2.166E+00	2.400E+00	3.272E-01	3.185
		445.03		-3.282E-02	2.160E+00	3.538E+00	4.554E-01	-0.009
AC-227		79.80		-8.746E-01	9.609E-01	1.292E+00	2.875E-01	-0.677
		236.00		6.050E-02	2.171E-01	3.164E-01	4.292E-02	0.191
		256.20	*	9.926E-02	3.313E-01	5.298E-01	8.826E-02	0.187
		286.10		-1.311E-01	1.348E+00	2.118E+00	3.166E-01	-0.062
	+	299.80		2.751E+00	1.667E+00	2.314E+00	4.344E-01	1.189
		304.40		-4.671E-01	1.643E+00	2.394E+00	4.700E-01	-0.195
		334.20		-3.492E-02	2.132E+00	3.152E+00	6.403E-01	-0.011
TH-227		79.80		-8.746E-01	9.613E-01	1.292E+00	2.909E-01	-0.677
	+	94.00		8.632E+00	2.663E+00	2.419E+00	5.530E-01	3.568
		236.00		6.050E-02	2.171E-01	3.164E-01	3.962E-02	0.191
		256.20	*	9.926E-02	3.315E-01	5.298E-01	1.017E-01	0.187
		286.10		-1.311E-01	1.354E+00	2.118E+00	2.131E+00	-0.062
	+	299.80		2.751E+00	1.667E+00	2.314E+00	4.344E-01	1.189
		304.40		-4.671E-01	1.643E+00	2.394E+00	4.700E-01	-0.195
		334.20		-3.492E-02	2.132E+00	3.152E+00	6.403E-01	-0.011
TH-229		85.43		2.480E-01	1.129E-01	1.746E-01	1.853E-02	1.421
	+	88.47		5.229E-01	9.875E-02	1.249E-01	1.346E-02	4.185
		100.00		7.512E-02	1.171E-01	2.040E-01	2.329E-02	0.368
		193.63	*	7.246E-02	4.071E-01	6.703E-01	6.395E-02	0.108
		210.97		1.402E-01	7.284E-01	1.066E+00	1.057E-01	0.132
PA-231		283.67	*	-1.841E-01	1.382E+00	2.169E+00	3.630E-01	-0.085
	+	301.29		1.100E+00	6.524E-01	9.280E-01	1.299E-01	1.186
TH-231		81.07		-1.656E-01	1.268E-01	1.685E-01	1.755E-02	-0.983
		83.78		2.426E-01	7.946E-02	1.240E-01	1.307E-02	1.956
		94.90		1.568E-01	1.412E-01	2.279E-01	2.534E-02	0.688
		122.32		-3.056E-02	1.216E+00	2.050E+00	2.727E-01	-0.015
		144.24		2.653E-01	5.394E-01	9.077E-01	1.082E-01	0.292
		154.21		3.201E-01	3.112E-01	5.353E-01	5.831E-02	0.598
	+	269.46		5.368E-01	2.463E-01	3.043E-01	3.392E-02	1.764
		323.87	*	-6.871E-01	5.939E-01	9.129E-01	1.715E-01	-0.753
	+	338.28		7.643E+00	2.166E+00	2.400E+00	3.272E-01	3.185
		445.03		-3.282E-02	2.160E+00	3.538E+00	4.554E-01	-0.009
U-231		84.21		9.398E+00	3.312E+00	5.162E+00	5.450E-01	1.821
	+	92.29		8.368E+00	1.965E+00	2.695E+00	2.956E-01	3.105
		95.87	*	-5.505E-01	6.515E-01	9.587E-01	1.071E-01	-0.574

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		1.512E+00	1.408E+00	2.258E+00	2.691E-01	0.669
PA-233	+	75.28		1.825E+01	3.541E+00	3.716E+00	6.047E-01	4.911
	+	86.59		7.498E+00	2.373E+00	1.966E+00	5.416E-01	3.814
	+	300.12		7.669E-01	4.593E-01	6.532E-01	1.069E-01	1.174
		311.98	*	-3.597E-02	5.506E-02	8.941E-02	9.873E-03	-0.402
		340.50		1.368E+00	7.087E-01	1.058E+00	2.594E-01	1.293
		398.62		-7.352E-01	1.932E+00	3.104E+00	8.323E-01	-0.237
		415.76		1.646E+00	1.620E+00	2.770E+00	6.056E-01	0.594
PA-234	+	63.00		2.035E+00	9.097E-01	1.068E+00	1.733E-01	1.906
		94.67		1.724E-01	1.058E-01	1.710E-01	2.436E-02	1.008
		98.44		7.230E-02	7.152E-02	9.967E-02	5.609E-02	0.725
		99.86		2.246E-01	2.978E-01	5.204E-01	5.935E-02	0.432
		111.00		-8.221E-02	1.248E-01	2.056E-01	3.039E-02	-0.400
		131.20		-1.266E-01	8.207E-02	1.270E-01	1.550E-02	-0.997
		152.70		3.354E-01	2.576E-01	4.390E-01	7.884E-02	0.764
	+	186.00		4.303E+00	2.124E+00	2.164E+00	6.802E-01	1.988
		226.40		-2.318E-02	3.366E-01	5.409E-01	7.737E-02	-0.043
		227.20		-3.085E-01	3.648E-01	5.595E-01	5.731E-02	-0.551
		248.90		-6.091E-02	6.756E-01	1.075E+00	2.502E-01	-0.057
		293.70		4.235E+00	1.116E+00	1.485E+00	2.767E-01	2.851
		369.80		1.235E-01	7.858E-01	1.320E+00	2.935E-01	0.094
		568.70		1.069E-01	1.062E+00	1.681E+00	1.797E-01	0.064
		569.50		4.170E-02	2.785E-01	4.419E-01	4.726E-02	0.094
		574.00		-2.959E-01	1.432E+00	2.254E+00	2.417E-01	-0.131
		699.00		2.459E-01	7.123E-01	1.212E+00	2.456E-01	0.203
		706.10		-4.416E-01	1.082E+00	1.714E+00	7.732E-01	-0.258
		733.00		-7.871E-03	4.062E-01	6.105E-01	1.414E-01	-0.013
		742.81		-2.543E-01	1.383E+00	2.237E+00	1.511E+00	-0.114
		796.30		1.622E+00	1.139E+00	1.899E+00	5.261E-01	0.854
		805.60		-9.899E-02	1.060E+00	1.728E+00	5.389E-01	-0.057
		819.60		-4.489E-01	1.489E+00	2.018E+00	7.755E-01	-0.223
		826.30		4.117E-01	8.620E-01	1.437E+00	6.478E-01	0.287
		831.60		-3.561E-01	7.503E-01	9.883E-01	2.997E-01	-0.360
		876.40		4.040E-01	9.250E-01	1.408E+00	1.449E+00	0.287
		880.51		-1.040E-01	2.985E-01	4.704E-01	4.552E-02	-0.221
		883.24		2.617E-01	3.488E-01	5.273E-01	3.552E-01	0.496
		899.00		-1.395E-01	9.971E-01	1.519E+00	6.669E-01	-0.092
		925.00		-6.482E-01	1.244E+00	1.912E+00	1.802E-01	-0.339
		926.50		-7.685E-02	1.860E-01	2.878E-01	7.357E-02	-0.267
		946.00	*	6.871E-02	3.235E-01	5.329E-01	1.019E-01	0.129
		949.00		2.615E-01	4.637E-01	7.878E-01	7.382E-02	0.332
		980.50		7.184E-01	7.417E-01	1.303E+00	1.208E-01	0.552
		1394.10		-3.620E-01	1.171E+00	1.785E+00	1.161E+00	-0.203
PA-234M		766.42		1.230E+01	1.401E+01	2.201E+01	1.125E+01	0.559
		1001.03	*	5.829E+00	4.981E+00	8.777E+00	9.194E-01	0.664
NP-236		94.67		1.328E-01	7.949E-02	1.300E-01	1.443E-02	1.022
		98.44		5.459E-02	4.489E-02	7.534E-02	8.529E-03	0.725
		111.00		-6.218E-02	9.428E-02	1.555E-01	1.884E-02	-0.400
		160.31	*	-2.222E-02	6.292E-02	1.025E-01	9.765E-03	-0.217

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.055E-01	9.886E-02	1.740E-01	1.981E-02	0.606
		117.00	*	3.937E-02	1.279E-01	2.188E-01	2.742E-02	0.180
	+	209.75		1.485E+00	9.711E-01	1.205E+00	1.191E-01	1.232
		228.18		-2.035E-01	1.922E-01	2.903E-01	2.979E-02	-0.701
	+	277.60		2.867E-01	1.973E-01	2.731E-01	3.041E-02	1.050
		334.30		-1.985E-02	1.208E+00	1.786E+00	1.875E-01	-0.011
AM-241		59.54	*	3.298E-02	4.771E-02	7.204E-02	7.484E-03	0.458
CM-243		99.55		1.086E-01	1.017E-01	1.790E-01	2.039E-02	0.606
		103.76	*	-5.847E-03	6.595E-02	1.008E-01	1.174E-02	-0.058
		117.00		4.051E-02	1.315E-01	2.251E-01	2.821E-02	0.180
	+	209.75		1.464E+00	9.573E-01	1.188E+00	1.175E-01	1.232
		228.18		-2.057E-01	1.942E-01	2.933E-01	3.010E-02	-0.701
	+	277.60		2.890E-01	1.989E-01	2.753E-01	3.066E-02	1.050
AM-246		798.80		-1.596E-01	1.655E-01	2.513E-01	2.627E-02	-0.635
		1036.00		4.762E-02	3.077E-01	5.229E-01	4.737E-02	0.091
		1062.04		-6.464E-02	2.575E-01	4.222E-01	3.772E-02	-0.153
		1078.86	*	7.069E-02	1.562E-01	2.703E-01	2.390E-02	0.262
CM-247	+	278.00		1.189E+00	8.181E-01	1.151E+00	1.283E-01	1.033
		287.40		-6.115E-01	1.110E+00	1.691E+00	1.878E-01	-0.362
		402.60	*	2.235E-02	3.377E-02	5.803E-02	5.349E-03	0.385
CF-249		252.85		-5.409E-01	7.530E-01	1.148E+00	1.232E-01	-0.471
		333.44		-3.483E-02	1.612E-01	2.345E-01	2.465E-02	-0.149
		387.95	*	-2.807E-02	3.658E-02	5.762E-02	5.302E-03	-0.487
CF-251		176.60	*	-6.670E-02	1.046E-01	1.668E-01	1.528E-02	-0.400
		227.00		-2.105E-01	3.232E-01	5.020E-01	5.140E-02	-0.419
		285.00		-2.220E-02	1.546E+00	2.444E+00	2.718E-01	-0.009

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837005      *
* Acquisition date : 23-FEB-2010 12:07:14 Detector SN#    :                 *
* Detector ID      : GAM25                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.05     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  8-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G246837005           Analyst initials: MXR1            *
* Batch Number     : 952641               Sample Quantity : 1.3748E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.579E+01	3.529E+00	4.426E-01	0.000E+00
CD-109	3.896E+00	7.210E-01	6.822E-01	0.000E+00
SN-126	3.830E-01	7.088E-02	6.693E-02	0.000E+00
EU-155	1.362E-01	9.342E-02	1.235E-01	0.000E+00
TL-208	5.576E-01	1.051E-01	5.711E-02	0.000E+00
BI-210	9.640E-01	6.069E-01	6.248E-01	0.000E+00
PB-210	9.640E-01	6.069E-01	6.248E-01	0.000E+00
PO-210	9.640E-01	6.057E-01	6.248E-01	0.000E+00
BI-211	3.688E+00	5.563E-01	2.915E-01	0.000E+00
PB-212	1.631E+00	2.069E-01	7.908E-02	0.000E+00
PO-212	1.631E+00	2.069E-01	7.908E-02	0.000E+00
BI-214	1.213E+00	2.100E-01	1.075E-01	0.000E+00
PB-214	1.283E+00	2.043E-01	1.016E-01	0.000E+00
PO-214	1.283E+00	2.043E-01	1.016E-01	0.000E+00
PO-216	1.631E+00	2.069E-01	7.908E-02	0.000E+00
PO-218	1.283E+00	2.043E-01	1.016E-01	0.000E+00
RA-224	4.064E+00	1.051E+00	9.010E-01	0.000E+00
RA-226	1.213E+00	2.100E-01	1.075E-01	0.000E+00
AC-228	1.405E+00	3.209E-01	2.167E-01	0.000E+00
RA-228	1.405E+00	3.209E-01	2.167E-01	0.000E+00
TH-228	1.656E+00	2.100E-01	8.027E-02	0.000E+00
TH-230	1.213E+00	2.100E-01	1.075E-01	0.000E+00
TH-232	1.405E+00	3.209E-01	2.167E-01	0.000E+00
TH-234	1.746E+00	7.806E-01	7.374E-01	0.000E+00
U-234	1.213E+00	2.100E-01	1.075E-01	0.000E+00
U-235	9.418E-02	1.633E-01	2.939E-01	0.000E+00
NP-237	1.125E+00	3.083E-01	1.957E-01	0.000E+00
U-238	1.746E+00	7.806E-01	7.374E-01	0.000E+00
AM-243	3.484E-01	5.010E-02	4.394E-02	0.000E+00
ANH-511	9.536E-02	6.887E-02	4.552E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	2.682E-02	2.967E-01	4.931E-01	0.000E+00	NOT IDENT.
NA-22	-1.681E-02	4.599E-02	7.490E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.363E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.496E-02	3.195E-02	6.055E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.481E-02	4.506E-02	0.000E+00	FAIL ABUN
SC-46	-1.988E-02	3.961E-02	6.341E-02	0.000E+00	FAIL ABUN
V-48	-3.933E-02	7.369E-02	1.159E-01	0.000E+00	NOT IDENT.
CR-51	1.249E-01	3.065E-01	5.560E-01	0.000E+00	NOT IDENT.
MN-52	1.684E-01	2.114E-01	3.905E-01	0.000E+00	NOT IDENT.
MN-54	2.036E-02	4.620E-02	6.554E-02	0.000E+00	NOT IDENT.
CO-56	-4.583E-03	3.889E-02	6.509E-02	0.000E+00	NOT IDENT.
CO-57	-2.027E-03	1.733E-02	3.123E-02	0.000E+00	NOT IDENT.
CO-58	1.681E-03	4.192E-02	7.148E-02	0.000E+00	NOT IDENT.
FE-59	-8.069E-02	1.001E-01	1.602E-01	0.000E+00	NOT IDENT.
CO-60	2.855E-03	3.885E-02	6.575E-02	0.000E+00	NOT IDENT.
ZN-65	3.767E-02	1.114E-01	1.705E-01	0.000E+00	NOT IDENT.
GE-68	1.143E+00	1.322E+00	2.423E+00	0.000E+00	NOT IDENT.
AS-73	1.547E-01	1.667E-01	2.986E-01	0.000E+00	NOT IDENT.
AS-74	-1.432E-02	8.662E-02	1.420E-01	0.000E+00	NOT IDENT.
SE-75	-2.776E-03	3.607E-02	6.048E-02	0.000E+00	NOT IDENT.
BR-77	6.449E+00	9.803E+00	1.731E+01	0.000E+00	FAIL ABUN
SR-82	-4.443E-02	4.015E-01	6.801E-01	0.000E+00	NOT IDENT.
RB-83	2.993E-02	6.806E-02	1.185E-01	0.000E+00	NOT IDENT.
RB-84	6.833E-03	7.257E-02	1.232E-01	0.000E+00	NOT IDENT.
KR-85	7.857E+00	6.928E+00	1.135E+01	0.000E+00	NOT IDENT.
SR-85	4.024E-02	3.548E-02	5.812E-02	0.000E+00	NOT IDENT.
RB-86	3.978E-01	8.463E-01	1.509E+00	0.000E+00	NOT IDENT.
Y-88	-2.621E-03	3.131E-02	5.161E-02	0.000E+00	NOT IDENT.
ZR-88	-1.072E-02	2.752E-02	4.672E-02	0.000E+00	NOT IDENT.
Y-91	-1.237E+00	2.160E+01	3.653E+01	0.000E+00	NOT IDENT.
NB-94	-2.752E-02	3.372E-02	5.458E-02	0.000E+00	NOT IDENT.
NB-95	4.240E-02	4.554E-02	8.237E-02	0.000E+00	NOT IDENT.
NB-95M	-2.482E-02	1.127E-01	1.685E-01	0.000E+00	NOT IDENT.
ZR-95	3.275E-02	7.029E-02	1.246E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.847E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.690E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.602E+00	1.124E+01	1.908E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.058E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.190E-02	2.642E-02	4.309E-02	0.000E+00	NOT IDENT.
RH-102	6.413E-03	2.499E-02	4.344E-02	0.000E+00	NOT IDENT.
RU-103	-3.168E-02	3.791E-02	5.970E-02	0.000E+00	FAIL ABUN
RH-106	5.063E-02	2.975E-01	5.268E-01	0.000E+00	FAIL ABUN
RU-106	5.063E-02	2.974E-01	5.268E-01	0.000E+00	FAIL ABUN
AG-108M	-2.620E-02	3.023E-02	4.882E-02	0.000E+00	NOT IDENT.
AG-110M	-4.575E-02	3.552E-02	5.547E-02	0.000E+00	NOT IDENT.
IN-111	-2.789E-01	9.633E-01	1.417E+00	0.000E+00	NOT IDENT.
IN-113M	-4.642E-03	4.039E-02	6.983E-02	0.000E+00	NOT IDENT.
SN-113	-4.642E-03	4.039E-02	6.983E-02	0.000E+00	NOT IDENT.
IN-114M	-6.279E-02	1.541E-01	2.333E-01	0.000E+00	NOT IDENT.
CD-115	1.496E+00	9.400E+00	1.605E+01	0.000E+00	NOT IDENT.
SN-117M	4.032E-02	4.221E-02	7.737E-02	0.000E+00	NOT IDENT.
SB-122	6.603E-01	2.045E+00	3.502E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	3.878E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.193E-02	2.206E-02	3.988E-02	0.000E+00	NOT IDENT.
I-124	-2.332E-01	6.719E-01	9.919E-01	0.000E+00	NOT IDENT.
SB-124	-4.351E-02	6.228E-02	8.926E-02	0.000E+00	FAIL ABUN
SB-125	4.060E-02	8.058E-02	1.435E-01	0.000E+00	FAIL ABUN
TE-125M	1.084E+00	6.827E+00	1.132E+01	0.000E+00	NOT IDENT.
I-126	-5.548E-02	1.912E-01	3.258E-01	0.000E+00	NOT IDENT.
SB-126	-5.538E-02	1.447E-01	2.267E-01	0.000E+00	FAIL ABUN
SB-127	1.832E+00	1.387E+00	2.581E+00	0.000E+00	NOT IDENT.
XE-127	9.206E-03	3.719E-02	6.509E-02	0.000E+00	NOT IDENT.
I-131	-2.000E-02	9.633E-02	1.668E-01	0.000E+00	NOT IDENT.
TE-132	-6.170E-01	5.675E-01	8.995E-01	0.000E+00	NOT IDENT.
BA-133	-1.550E-02	4.090E-02	6.118E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.157E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.370E-02	1.024E-01	0.000E+00	NOT IDENT.
CS-135	9.681E-02	1.488E-01	2.327E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.627E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.693E-03	1.100E-01	1.893E-01	0.000E+00	FAIL ABUN
BA-137M	-1.161E-02	3.993E-02	7.089E-02	0.000E+00	NOT IDENT.
CS-137	-1.227E-02	4.221E-02	7.493E-02	0.000E+00	NOT IDENT.
CE-139	3.517E-03	2.305E-02	4.091E-02	0.000E+00	NOT IDENT.
BA-140	-7.524E-02	2.296E-01	3.733E-01	0.000E+00	NOT IDENT.
LA-140	-5.291E-02	8.062E-02	1.240E-01	0.000E+00	NOT IDENT.

CE-141	-1.339E-05	4.734E-02	8.447E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.502E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.065E-01	1.455E-01	2.514E-01	0.000E+00	NOT IDENT.
PM-144	-1.542E-02	3.298E-02	5.496E-02	0.000E+00	NOT IDENT.
PR-144	-1.045E+00	2.235E+00	3.724E+00	0.000E+00	NOT IDENT.
PM-146	2.145E-02	4.077E-02	7.220E-02	0.000E+00	NOT IDENT.
ND-147	-5.916E-01	5.496E-01	8.336E-01	0.000E+00	FAIL ABUN
PM-149	-8.395E+00	7.602E+01	1.262E+02	0.000E+00	NOT IDENT.
EU-152	9.856E-03	9.089E-02	1.425E-01	0.000E+00	FAIL ABUN
GD-153	-5.138E-02	5.273E-02	8.207E-02	0.000E+00	NOT IDENT.
EU-154	-4.500E-02	1.287E-01	2.099E-01	0.000E+00	NOT IDENT.
TB-160	-1.345E-01	1.464E-01	2.249E-01	0.000E+00	FAIL ABUN
HO-166M	1.652E-02	6.505E-02	1.141E-01	0.000E+00	NOT IDENT.
TM-171	-2.236E+00	1.198E+01	1.875E+01	0.000E+00	NOT IDENT.
LU-176	5.544E-03	1.927E-02	3.491E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.326E+00	1.734E+00	0.000E+00	FAIL ABUN
LU-177M	-1.239E-01	1.640E-01	2.700E-01	0.000E+00	NOT IDENT.
HF-181	-2.239E-02	3.640E-02	5.881E-02	0.000E+00	NOT IDENT.
W-181	5.105E-02	1.396E-01	2.245E-01	0.000E+00	NOT IDENT.
TA-182	-1.409E-01	2.220E-01	3.582E-01	0.000E+00	FAIL ABUN
RE-183	-4.546E-02	8.642E-02	1.471E-01	0.000E+00	FAIL ABUN
RE-184	-1.441E-01	1.966E-01	3.175E-01	0.000E+00	NOT IDENT.
OS-185	1.227E-02	4.171E-02	7.417E-02	0.000E+00	NOT IDENT.
RE-188	-2.263E-02	1.315E-01	2.316E-01	0.000E+00	NOT IDENT.
W-188	4.882E-01	6.417E+00	1.023E+01	0.000E+00	FAIL ABUN
IR-192	-1.737E-02	2.951E-02	5.074E-02	0.000E+00	FAIL ABUN
AU-195	2.321E-01	1.411E-01	2.660E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.730E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.928E+00	5.270E+00	9.046E+00	0.000E+00	NOT IDENT.
TL-202	5.024E-02	6.580E-02	1.183E-01	0.000E+00	NOT IDENT.
HG-203	3.327E-02	3.957E-02	6.241E-02	0.000E+00	NOT IDENT.
BI-207	2.215E-02	5.638E-02	1.001E-01	0.000E+00	FAIL ABUN
TL-207	-6.871E-01	5.821E-01	9.430E-01	0.000E+00	FAIL ABUN
PO-209	2.698E+00	8.174E+00	1.410E+01	0.000E+00	NOT IDENT.
PB-211	4.782E-02	8.335E-01	1.450E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.791E-01	7.091E-01	0.000E+00	FAIL ABUN
PO-215	-6.871E-01	5.821E-01	9.430E-01	0.000E+00	FAIL ABUN
RN-219	8.012E-02	3.724E-01	6.547E-01	0.000E+00	FAIL ABUN
RN-220	-1.076E+01	2.559E+01	4.150E+01	0.000E+00	NOT IDENT.
RA-223	-6.871E-01	5.821E-01	9.430E-01	0.000E+00	FAIL ABUN
AC-227	9.926E-02	3.247E-01	5.497E-01	0.000E+00	FAIL ABUN
TH-227	9.926E-02	3.248E-01	5.497E-01	0.000E+00	FAIL ABUN
TH-229	7.246E-02	3.989E-01	6.992E-01	0.000E+00	FAIL ABUN
PA-231	-1.841E-01	1.354E+00	2.246E+00	0.000E+00	FAIL ABUN
TH-231	-6.871E-01	5.821E-01	9.430E-01	0.000E+00	FAIL ABUN
U-231	-5.505E-01	6.384E-01	1.013E+00	0.000E+00	FAIL ABUN
PA-233	-3.597E-02	5.395E-02	9.242E-02	0.000E+00	FAIL ABUN
PA-234	6.871E-02	3.170E-01	5.391E-01	0.000E+00	FAIL ABUN
PA-234M	5.829E+00	4.881E+00	8.871E+00	0.000E+00	NOT IDENT.
NP-236	-2.222E-02	6.166E-02	1.073E-01	0.000E+00	NOT IDENT.
NP-239	3.937E-02	1.253E-01	2.304E-01	0.000E+00	FAIL ABUN
AM-241	3.298E-02	4.676E-02	7.677E-02	0.000E+00	NOT IDENT.
CM-243	-5.847E-03	6.463E-02	1.064E-01	0.000E+00	FAIL ABUN
AM-246	7.069E-02	1.531E-01	2.727E-01	0.000E+00	NOT IDENT.
CM-247	2.235E-02	3.309E-02	5.969E-02	0.000E+00	FAIL ABUN
CF-249	-2.807E-02	3.585E-02	5.932E-02	0.000E+00	NOT IDENT.
CF-251	-6.670E-02	1.026E-01	1.743E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:09:27.05

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837005.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:07:14
Sample ID         : G246837005           Sample quantity  : 1.37480E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.05  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 952641               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1551	10.67*	1.109E+00	3.579E+01	3.579E+01	10.06
CD-109	88.03	488	3.72*	9.405E+00	3.810E+00	3.896E+00	18.88
SN-126	64.28	238	9.60	9.778E+00	6.912E-01	6.912E-01	44.59
	86.94	488	8.90	9.405E+00	1.592E+00	1.592E+00	44.64
	87.57	488	37.00*	9.405E+00	3.830E-01	3.830E-01	18.88
EU-155	48.70	------	4.60	9.341E+00	------ Line Not Found		------
	60.01	------	1.11	9.748E+00	------ Line Not Found		------
	86.54	488	30.90	9.405E+00	4.586E-01	4.613E-01	18.92
	105.31	90	20.70*	8.816E+00	1.354E-01	1.362E-01	70.01
TL-208	277.35	70	6.80	4.737E+00	5.944E-01	5.944E-01	69.38
	510.84	98	21.60	2.809E+00	4.415E-01	4.415E-01	74.17
	583.14	429	84.20*	2.497E+00	5.576E-01	5.576E-01	19.24
	860.37	49	12.46	1.765E+00	6.103E-01	6.103E-01	79.94
BI-210	46.50	131	4.05*	9.188E+00	9.627E-01	9.640E-01	64.24
PB-210	46.50	131	4.05*	9.188E+00	9.627E-01	9.640E-01	64.24
PO-210	46.50	131	4.05*	9.188E+00	9.627E-01	9.640E-01	64.12
BI-211	72.87	------	1.27	9.724E+00	------ Line Not Found		------
	351.07	679	12.94*	3.886E+00	3.688E+00	3.688E+00	15.39
PB-212	74.81	816	10.70	9.694E+00	2.149E+00	2.149E+00	17.40
	77.11	1225	18.00	9.651E+00	1.926E+00	1.926E+00	12.87
	87.30	488	8.00	9.405E+00	1.771E+00	1.771E+00	21.37
	238.63	1423	44.60*	5.339E+00	1.631E+00	1.631E+00	12.94
	300.09	82	3.41	4.439E+00	1.484E+00	1.484E+00	58.95
PO-212	74.81	816	10.70	9.694E+00	2.149E+00	2.149E+00	17.40
	77.11	1225	18.00	9.651E+00	1.926E+00	1.926E+00	12.87
	87.30	488	8.00	9.405E+00	1.771E+00	1.771E+00	21.37
	115.19	------	0.60	8.498E+00	------ Line Not Found		------
	238.63	1423	44.60*	5.339E+00	1.631E+00	1.631E+00	12.94
	300.09	82	3.41	4.439E+00	1.484E+00	1.484E+00	58.95
BI-214	609.31	494	46.30*	2.401E+00	1.213E+00	1.213E+00	17.66
	1120.29	93	15.10	1.398E+00	1.203E+00	1.203E+00	43.67
	1764.49	75	15.80	9.412E-01	1.373E+00	1.373E+00	28.49

Sample ID : G246837005 Acquisition date : 23-FEB-2010 12:07:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	74.81	816	6.21	9.694E+00	3.703E+00	3.703E+00	16.44
	77.11	1225	10.50	9.651E+00	3.302E+00	3.302E+00	14.95
	87.30	488	4.67	9.405E+00	3.035E+00	3.035E+00	20.40
	241.98	311	7.49	5.289E+00	2.143E+00	2.143E+00	26.98
	295.21	456	19.20	4.502E+00	1.439E+00	1.439E+00	19.88
	351.92	679	37.20*	3.886E+00	1.283E+00	1.283E+00	16.25
PO-214	74.81	816	6.21	9.694E+00	3.703E+00	3.703E+00	16.44
	77.11	1225	10.50	9.651E+00	3.302E+00	3.302E+00	14.95
	87.30	488	4.67	9.405E+00	3.035E+00	3.035E+00	20.40
	241.98	311	7.49	5.289E+00	2.143E+00	2.143E+00	26.98
	295.21	456	19.20	4.502E+00	1.439E+00	1.439E+00	19.88
	351.92	679	37.20*	3.886E+00	1.283E+00	1.283E+00	16.25
PO-216	74.81	816	10.70	9.694E+00	2.149E+00	2.149E+00	17.40
	77.11	1225	18.00	9.651E+00	1.926E+00	1.926E+00	12.87
	87.30	488	8.00	9.405E+00	1.771E+00	1.771E+00	21.37
	238.63	1423	44.60*	5.339E+00	1.631E+00	1.631E+00	12.94
	300.09	82	3.41	4.439E+00	1.484E+00	1.484E+00	58.95
PO-218	74.81	816	6.21	9.694E+00	3.703E+00	3.703E+00	16.44
	77.11	1225	10.50	9.651E+00	3.302E+00	3.302E+00	14.95
	87.30	488	4.67	9.405E+00	3.035E+00	3.035E+00	20.40
	241.98	311	7.49	5.289E+00	2.143E+00	2.143E+00	26.98
	295.21	456	19.20	4.502E+00	1.439E+00	1.439E+00	19.88
	351.92	679	37.20*	3.886E+00	1.283E+00	1.283E+00	16.25
RA-224	240.98	311	3.95*	5.289E+00	4.064E+00	4.064E+00	26.39
RA-226	609.31	494	46.30*	2.401E+00	1.213E+00	1.213E+00	17.66
	1120.29	93	15.10	1.398E+00	1.203E+00	1.203E+00	43.67
	1764.49	75	15.80	9.412E-01	1.373E+00	1.373E+00	28.49
AC-228	338.32	307	11.40	4.016E+00	1.830E+00	1.830E+00	48.52
	911.07	239	27.70*	1.678E+00	1.405E+00	1.405E+00	23.31
	969.11	177	16.60	1.589E+00	1.829E+00	1.829E+00	31.39
RA-228	338.32	307	11.40	4.016E+00	1.830E+00	1.830E+00	48.52
	911.07	239	27.70*	1.678E+00	1.405E+00	1.405E+00	23.31
	969.11	177	16.60	1.589E+00	1.829E+00	1.829E+00	31.39
TH-228	74.81	816	10.70	9.694E+00	2.149E+00	2.181E+00	14.72
	77.11	1225	18.00	9.651E+00	1.926E+00	1.955E+00	12.87
	87.30	488	8.00	9.405E+00	1.771E+00	1.798E+00	18.88
	238.63	1423	44.60*	5.339E+00	1.631E+00	1.656E+00	12.94
	300.09	82	3.41	4.439E+00	1.484E+00	1.507E+00	82.95
TH-230	609.31	494	46.30*	2.401E+00	1.213E+00	1.213E+00	17.66
	1120.29	93	15.10	1.398E+00	1.203E+00	1.203E+00	43.67
	1764.49	75	15.80	9.412E-01	1.373E+00	1.373E+00	28.49
TH-232	338.32	307	11.40	4.016E+00	1.830E+00	1.830E+00	26.94
	911.07	239	27.70*	1.678E+00	1.405E+00	1.405E+00	23.31
	969.11	177	16.60	1.589E+00	1.829E+00	1.829E+00	31.39
TH-234	63.29	238	3.80*	9.778E+00	1.746E+00	1.746E+00	45.62
	92.38	409	5.41	9.241E+00	2.234E+00	2.234E+00	28.36
U-234	609.31	494	46.30*	2.401E+00	1.213E+00	1.213E+00	17.66
	1120.29	93	15.10	1.398E+00	1.203E+00	1.203E+00	43.67
	1764.49	75	15.80	9.412E-01	1.373E+00	1.373E+00	28.49

Sample ID : G246837005 Acquisition date : 23-FEB-2010 12:07:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-235	89.95	266	2.70	9.327E+00	2.886E+00	2.886E+00	40.75
	93.35	409	4.50	9.241E+00	2.686E+00	2.686E+00	35.53
	105.00	90	2.10	8.816E+00	1.335E+00	1.335E+00	75.60
	143.76	------	10.50*	7.568E+00	------	Line Not Found	------
	163.35	------	4.70	6.998E+00	------	Line Not Found	------
	185.71	202	54.00	6.415E+00	1.594E-01	1.594E-01	39.19
	205.31	------	4.70	5.979E+00	------	Line Not Found	------
NP-237	86.50	488	12.60*	9.405E+00	1.125E+00	1.125E+00	27.97
	95.87	------	2.60	9.143E+00	------	Line Not Found	------
U-238	63.29	238	3.80*	9.778E+00	1.746E+00	1.746E+00	45.62
	92.38	409	5.41	9.241E+00	2.234E+00	2.234E+00	23.49
AM-243	74.67	816	66.00*	9.694E+00	3.484E-01	3.484E-01	14.67
	86.72	488	0.34	9.405E+00	4.218E+01	4.218E+01	18.88
	117.66	------	0.55	8.415E+00	------	Line Not Found	------
	142.18	------	0.13	7.617E+00	------	Line Not Found	------
ANH-511	511.00	98	100.00*	2.809E+00	9.536E-02	9.536E-02	73.70

Flag: "*" = Keyline

Sample ID : G246837005 Acquisition date : 23-FEB-2010 12:07:14

Total number of lines in spectrum 32
Number of unidentified lines 1
Number of lines tentatively identified by NID 31 96.88%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.579E+01	3.579E+01	0.360E+01	10.06	
CD-109	464.00D	1.02	3.810E+00	3.896E+00	0.736E+00	18.88	
SN-126	1.00E+05Y	1.00	3.830E-01	3.830E-01	0.723E-01	18.88	
EU-155	4.96Y	1.01	1.354E-01	1.362E-01	0.953E-01	70.01	
TL-208	1.41E+10Y	1.00	5.576E-01	5.576E-01	1.073E-01	19.24	
BI-210	22.26Y	1.00	9.627E-01	9.640E-01	6.193E-01	64.24	
PB-210	22.26Y	1.00	9.627E-01	9.640E-01	6.193E-01	64.24	
PO-210	22.26Y	1.00	9.627E-01	9.640E-01	6.181E-01	64.12	
BI-211	7.04E+08Y	1.00	3.688E+00	3.688E+00	0.568E+00	15.39	
PB-212	1.41E+10Y	1.00	1.631E+00	1.631E+00	0.211E+00	12.94	
PO-212	1.41E+10Y	1.00	1.631E+00	1.631E+00	0.211E+00	12.94	
BI-214	1600.00Y	1.00	1.213E+00	1.213E+00	0.214E+00	17.66	
PB-214	1600.00Y	1.00	1.283E+00	1.283E+00	0.208E+00	16.25	
PO-214	1600.00Y	1.00	1.283E+00	1.283E+00	0.208E+00	16.25	
PO-216	1.41E+10Y	1.00	1.631E+00	1.631E+00	0.211E+00	12.94	
PO-218	1600.00Y	1.00	1.283E+00	1.283E+00	0.208E+00	16.25	
RA-224	1.41E+10Y	1.00	4.064E+00	4.064E+00	1.072E+00	26.39	
RA-226	1600.00Y	1.00	1.213E+00	1.213E+00	0.214E+00	17.66	
AC-228	1.41E+10Y	1.00	1.405E+00	1.405E+00	0.327E+00	23.31	
RA-228	1.41E+10Y	1.00	1.405E+00	1.405E+00	0.327E+00	23.31	
TH-228	1.91Y	1.02	1.631E+00	1.656E+00	0.214E+00	12.94	
TH-230	4.47E+09Y	1.00	1.213E+00	1.213E+00	0.214E+00	17.66	
TH-232	1.41E+10Y	1.00	1.405E+00	1.405E+00	0.327E+00	23.31	
TH-234	4.47E+09Y	1.00	1.746E+00	1.746E+00	0.797E+00	45.62	
U-234	4.47E+09Y	1.00	1.213E+00	1.213E+00	0.214E+00	17.66	
U-235	7.04E+08Y	1.00	1.594E-01	1.594E-01	0.625E-01	39.19	K
NP-237	2.14E+06Y	1.00	1.125E+00	1.125E+00	0.315E+00	27.97	
U-238	4.47E+09Y	1.00	1.746E+00	1.746E+00	0.797E+00	45.62	
AM-243	7380.00Y	1.00	3.484E-01	3.484E-01	0.511E-01	14.67	
ANH-511	1.00E+09Y	1.00	9.536E-02	9.536E-02	7.028E-02	73.70	
	Total Activity :		7.598E+01	7.609E+01			

Grand Total Activity : 7.598E+01 7.609E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246837005 Acquisition date : 23-FEB-2010 12:07:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.12	104	316	0.94	417.77	414	9	1.44E-02	64.6	5.90E+00	T
0	270.34	129	199	1.50	540.21	536	10	1.80E-02	44.5	4.84E+00	T
0	463.30	77	117	1.26	926.10	919	12	1.07E-02	60.6	3.06E+00	T
0	727.04	74	107	1.19	1453.56	1449	10	1.02E-02	57.5	2.05E+00	T
0	828.42	57	68	6.91	1656.32	1646	19	7.95E-03	75.3	1.83E+00	T
3	964.16	70	39	2.39	1927.81	1921	23	9.79E-03	48.2	1.60E+00	T
0	1728.73	17	6	1.38	3457.03	3451	12	2.36E-03	75.3	9.58E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:09:32.00

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837005.CNF;1 *
* Acquisition date  : 23-FEB-2010 12:07:14  Detector SN#     :             *
* Detector ID       : GAM25                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:02.05          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 8-FEB-2010 12:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G246837005            Analyst initials: MXR1         *
* Batch Number      : 952641                Sample Quantity : 1.37480E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.579E+01	3.601E+00	4.413E-01	3.758E-02	81.103
CD-109	3.896E+00	7.357E-01	6.447E-01	6.928E-02	6.044
SN-126	3.830E-01	7.232E-02	6.324E-02	6.781E-03	6.056
EU-155	1.362E-01	9.533E-02	1.170E-01	1.384E-02	1.163
TL-208	5.576E-01	1.073E-01	5.591E-02	6.303E-03	9.972
BI-210	9.640E-01	6.193E-01	5.837E-01	6.019E-02	1.651
PB-210	9.640E-01	6.193E-01	5.837E-01	6.019E-02	1.651
PO-210	9.640E-01	6.181E-01	5.837E-01	5.559E-02	1.651
BI-211	3.688E+00	5.676E-01	2.826E-01	2.978E-02	13.049
PB-212	1.631E+00	2.111E-01	7.611E-02	8.665E-03	21.431
PO-212	1.631E+00	2.111E-01	7.611E-02	8.665E-03	21.431
BI-214	1.213E+00	2.143E-01	1.053E-01	1.271E-02	11.519
PB-214	1.283E+00	2.085E-01	9.855E-02	1.157E-02	13.017
PO-214	1.283E+00	2.085E-01	9.855E-02	1.157E-02	13.017
PO-216	1.631E+00	2.111E-01	7.611E-02	8.665E-03	21.431
PO-218	1.283E+00	2.085E-01	9.855E-02	1.157E-02	13.017
RA-224	4.064E+00	1.072E+00	8.673E-01	9.114E-02	4.686
RA-226	1.213E+00	2.143E-01	1.053E-01	1.271E-02	11.519

Sample ID : G246837005 Acquisition date : 23-FEB-2010 12:07:14

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.405E+00	3.274E-01	2.140E-01	2.545E-02	6.564
RA-228	1.405E+00	3.274E-01	2.140E-01	2.545E-02	6.564
TH-228	1.656E+00	2.143E-01	7.726E-02	8.796E-03	21.431
TH-230	1.213E+00	2.143E-01	1.053E-01	1.271E-02	11.519
TH-232	1.405E+00	3.274E-01	2.140E-01	2.545E-02	6.564
TH-234	1.746E+00	7.966E-01	6.927E-01	1.290E-01	2.521
U-234	1.213E+00	2.143E-01	1.053E-01	1.271E-02	11.519
U-235	1.594E-01	6.246E-02	2.802E-01	5.291E-02	0.569
NP-237	1.125E+00	3.146E-01	1.848E-01	4.294E-02	6.085
U-238	1.746E+00	7.966E-01	6.927E-01	1.290E-01	2.521
AM-243	3.484E-01	5.112E-02	4.140E-02	4.204E-03	8.416
ANH-511	9.536E-02	7.028E-02	4.445E-02	4.575E-03	2.145

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.682E-02		3.028E-01	4.809E-01	5.092E-02	0.056
NA-22	-1.681E-02		4.693E-02	7.448E-02	6.107E-03	-0.226
NA-24	-1.844E-01		3.247E-01	Half-Life too short		
AL-26	2.496E-02		3.260E-02	6.063E-02	4.968E-03	0.412
TI-44	3.554E-01	+	4.573E-02	4.249E-02	4.376E-03	8.365
SC-46	-1.988E-02		4.042E-02	6.260E-02	5.994E-03	-0.318
V-48	-3.933E-02		7.519E-02	1.147E-01	1.063E-02	-0.343
CR-51	1.249E-01		3.128E-01	5.381E-01	5.976E-02	0.232
MN-52	1.684E-01		2.157E-01	3.892E-01	3.207E-02	0.433
MN-54	2.036E-02		4.714E-02	6.462E-02	6.558E-03	0.315
CO-56	-4.583E-03		3.968E-02	6.419E-02	6.441E-03	-0.071
CO-57	-2.027E-03		1.768E-02	2.969E-02	3.828E-03	-0.068
CO-58	1.681E-03		4.278E-02	7.044E-02	7.309E-03	0.024
FE-59	-8.069E-02		1.021E-01	1.588E-01	1.496E-02	-0.508
CO-60	2.855E-03		3.965E-02	6.544E-02	5.314E-03	0.044
ZN-65	3.767E-02		1.137E-01	1.691E-01	1.461E-02	0.223
GE-68	1.143E+00		1.349E+00	2.401E+00	2.125E-01	0.476
AS-73	1.547E-01		1.701E-01	2.796E-01	2.684E-02	0.553
AS-74	-1.432E-02		8.839E-02	1.391E-01	1.507E-02	-0.103
SE-75	-2.776E-03		3.680E-02	5.832E-02	6.391E-03	-0.048
BR-77	6.449E+00		1.000E+01	1.691E+01	1.753E+00	0.381
SR-82	-4.443E-02		4.097E-01	6.696E-01	7.107E-02	-0.066
RB-83	2.993E-02		6.945E-02	1.157E-01	1.200E-02	0.259
RB-84	6.833E-03		7.405E-02	1.216E-01	1.175E-02	0.056
KR-85	7.857E+00		7.069E+00	1.108E+01	1.143E+00	0.709
SR-85	4.024E-02		3.620E-02	5.676E-02	5.856E-03	0.709
RB-86	3.978E-01		8.636E-01	1.495E+00	1.324E-01	0.266
Y-88	-2.621E-03		3.195E-02	5.170E-02	4.225E-03	-0.051
ZR-88	-1.072E-02		2.808E-02	4.540E-02	4.132E-03	-0.236
Y-91	-1.237E+00		2.204E+01	3.628E+01	2.985E+00	-0.034
NB-94	-2.752E-02		3.441E-02	5.363E-02	5.889E-03	-0.513

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	4.240E-02		4.647E-02	8.107E-02	8.660E-03	0.523
NB-95M	-2.482E-02		1.150E-01	1.622E-01	1.859E-02	-0.153
ZR-95	3.275E-02		7.172E-02	1.226E-01	1.404E-02	0.267
NB-97	-9.613E-02		4.514E-02	Half-Life too short		
ZR-97	1.627E+00		8.624E-01	Half-Life too short		
MO-99	-1.602E+00		1.146E+01	1.876E+01	3.103E+00	-0.085
TC-99M	4.427E+09		1.050E+10	Half-Life too short		
RH-101	-2.190E-02		2.696E-02	4.133E-02	3.982E-03	-0.530
RH-102	6.413E-03		2.550E-02	4.236E-02	4.230E-03	0.151
RU-103	-3.168E-02		3.868E-02	5.827E-02	8.834E-03	-0.544
RH-106	5.063E-02		3.035E-01	5.165E-01	7.730E-02	0.098
RU-106	5.063E-02		3.035E-01	5.165E-01	5.655E-02	0.098
AG-108M	-2.620E-02		3.085E-02	4.753E-02	4.696E-03	-0.551
AG-110M	-4.575E-02		3.625E-02	5.443E-02	6.134E-03	-0.841
IN-111	-2.789E-01		9.830E-01	1.364E+00	1.445E-01	-0.204
IN-113M	-4.642E-03		4.121E-02	6.784E-02	6.336E-03	-0.068
SN-113	-4.642E-03		4.121E-02	6.784E-02	6.336E-03	-0.068
IN-114M	-6.279E-02		1.573E-01	2.236E-01	2.116E-02	-0.281
CD-115	1.496E+00		9.592E+00	1.568E+01	1.635E+00	0.095
SN-117M	4.032E-02		4.307E-02	7.390E-02	7.175E-03	0.546
SB-122	6.603E-01		2.087E+00	3.426E+00	3.653E-01	0.193
I-123	2.097E+00		1.978E+00	Half-Life too short		
TE-123M	1.193E-02		2.251E-02	3.809E-02	3.698E-03	0.313
I-124	-2.332E-01		6.857E-01	9.717E-01	1.056E-01	-0.240
SB-124	-4.351E-02		6.355E-02	8.925E-02	7.715E-03	-0.488
SB-125	4.060E-02		8.222E-02	1.397E-01	1.349E-02	0.291
TE-125M	1.084E+00		6.967E+00	1.074E+01	1.426E+00	0.101
I-126	-5.548E-02		1.951E-01	3.198E-01	3.540E-02	-0.173
SB-126	-5.538E-02		1.476E-01	2.228E-01	2.432E-02	-0.249
SB-127	1.832E+00		1.415E+00	2.535E+00	3.365E-01	0.723
XE-127	9.206E-03		3.795E-02	6.245E-02	6.083E-03	0.147
I-131	-2.000E-02		9.830E-02	1.618E-01	1.660E-02	-0.124
TE-132	-6.170E-01		5.790E-01	8.651E-01	1.441E-01	-0.713
BA-133	-1.550E-02		4.173E-02	5.933E-02	8.412E-03	-0.261
I-133	-2.472E-03		2.631E-03	Half-Life too short		
CS-134	1.218E-01		5.480E-02	1.009E-01	1.062E-02	1.207
CS-135	9.681E-02		1.518E-01	2.245E-01	2.710E-02	0.431
I-135	-6.506E+09		2.361E+09	Half-Life too short		
CS-136	-3.693E-03		1.122E-01	1.875E-01	1.754E-02	-0.020
BA-137M	-1.161E-02		4.075E-02	6.957E-02	7.707E-03	-0.167
CS-137	-1.227E-02		4.307E-02	7.355E-02	8.156E-03	-0.167
CE-139	3.517E-03		2.352E-02	3.911E-02	3.488E-03	0.090
BA-140	-7.524E-02		2.343E-01	3.649E-01	1.229E-01	-0.206
LA-140	-5.291E-02		8.226E-02	1.238E-01	1.029E-02	-0.427
CE-141	-1.339E-05		4.831E-02	8.055E-02	8.959E-03	0.000
CE-143	3.444E-04		7.664E-05	Half-Life too short		
CE-144	-1.065E-01		1.484E-01	2.394E-01	4.232E-02	-0.445
PM-144	-1.542E-02		3.365E-02	5.400E-02	5.941E-03	-0.286

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144	-1.045E+00		2.280E+00	3.659E+00	4.025E-01	-0.286
PM-146	2.145E-02		4.161E-02	7.035E-02	8.215E-03	0.305
ND-147	-5.916E-01		5.608E-01	8.147E-01	1.309E-01	-0.726
PM-149	-8.395E+00		7.758E+01	1.218E+02	2.078E+01	-0.069
EU-152	9.856E-03		9.275E-02	1.381E-01	1.483E-02	0.071
GD-153	-5.138E-02		5.380E-02	7.769E-02	8.750E-03	-0.661
EU-154	-4.500E-02		1.313E-01	2.087E-01	2.293E-02	-0.216
TB-160	-1.345E-01		1.494E-01	2.219E-01	2.150E-02	-0.606
HO-166M	1.652E-02		6.638E-02	1.121E-01	1.228E-02	0.147
TM-171	-2.236E+00		1.222E+01	1.763E+01	1.750E+00	-0.127
LU-176	5.544E-03		1.966E-02	3.376E-02	3.684E-03	0.164
LU-177	2.070E+00	+	1.353E+00	1.665E+00	1.641E-01	1.243
LU-177M	-1.239E-01		1.674E-01	2.626E-01	2.454E-02	-0.472
HF-181	-2.239E-02		3.714E-02	5.736E-02	5.764E-03	-0.390
W-181	5.105E-02		1.425E-01	2.110E-01	2.088E-02	0.242
TA-182	-1.409E-01		2.265E-01	3.559E-01	2.927E-02	-0.396
RE-183	-4.546E-02		8.818E-02	1.406E-01	1.309E-02	-0.323
RE-184	-1.441E-01		2.006E-01	3.059E-01	3.281E-02	-0.471
OS-185	1.227E-02		4.256E-02	7.277E-02	8.029E-03	0.169
RE-188	-2.263E-02		1.342E-01	2.212E-01	2.228E-02	-0.102
W-188	4.882E-01		6.548E+00	9.880E+00	1.094E+00	0.049
IR-192	-1.737E-02		3.011E-02	4.910E-02	5.303E-03	-0.354
AU-195	2.321E-01		1.440E-01	2.519E-01	2.859E-02	0.921
TL-200	2.257E-04		1.903E-04	Half-Life too short		
TL-201	-2.928E+00		5.378E+00	8.649E+00	7.737E-01	-0.338
TL-202	5.024E-02		6.714E-02	1.152E-01	1.110E-02	0.436
HG-203	3.327E-02		4.038E-02	6.025E-02	6.838E-03	0.552
BI-207	2.215E-02		5.753E-02	9.914E-02	8.848E-03	0.223
TL-207	-6.871E-01		5.939E-01	9.129E-01	1.715E-01	-0.753
PO-209	2.698E+00		8.341E+00	1.392E+01	1.321E+00	0.194
PB-211	4.782E-02		8.505E-01	1.410E+00	8.848E-01	0.034
BI-212	8.321E-01	+	4.889E-01	6.972E-01	8.377E-02	1.193
PO-215	-6.871E-01		5.939E-01	9.129E-01	1.715E-01	-0.753
RN-219	8.012E-02		3.800E-01	6.364E-01	9.783E-02	0.126
RN-220	-1.076E+01		2.612E+01	4.058E+01	4.291E+00	-0.265
RA-223	-6.871E-01		5.939E-01	9.129E-01	1.715E-01	-0.753
AC-227	9.926E-02		3.313E-01	5.298E-01	8.826E-02	0.187
TH-227	9.926E-02		3.315E-01	5.298E-01	1.017E-01	0.187
TH-229	7.246E-02		4.071E-01	6.703E-01	6.395E-02	0.108
PA-231	-1.841E-01		1.382E+00	2.169E+00	3.630E-01	-0.085
TH-231	-6.871E-01		5.939E-01	9.129E-01	1.715E-01	-0.753
U-231	-5.505E-01		6.515E-01	9.587E-01	1.071E-01	-0.574
PA-233	-3.597E-02		5.506E-02	8.941E-02	9.873E-03	-0.402
PA-234	6.871E-02		3.235E-01	5.329E-01	1.019E-01	0.129
PA-234M	5.829E+00		4.981E+00	8.777E+00	9.194E-01	0.664
NP-236	-2.222E-02		6.292E-02	1.025E-01	9.765E-03	-0.217
NP-239	3.937E-02		1.279E-01	2.188E-01	2.742E-02	0.180
AM-241	3.298E-02		4.771E-02	7.204E-02	7.484E-03	0.458

Sample ID : G246837005 Acquisition date : 23-FEB-2010 12:07:14

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-5.847E-03		6.595E-02	1.008E-01	1.174E-02	-0.058
AM-246	7.069E-02		1.562E-01	2.703E-01	2.390E-02	0.262
CM-247	2.235E-02		3.377E-02	5.803E-02	5.349E-03	0.385
CF-249	-2.807E-02		3.658E-02	5.762E-02	5.302E-03	-0.487
CF-251	-6.670E-02		1.046E-01	1.668E-01	1.528E-02	-0.400

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246837005           *
* Acquisition date  : 23-FEB-2010 12:07:14 Detector SN#     :               *
* Detector ID       : GAM25                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.05      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  8-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246837005           Analyst initials: MXR1           *
* Batch Number      : 952641               Sample Quantity : 1.3748E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.579E+01	3.529E+00	2.214E-01	1.801E+00
CD-109	3.896E+00	7.210E-01	3.413E-01	3.679E-01
SN-126	3.830E-01	7.088E-02	3.349E-02	3.616E-02
EU-155	1.362E-01	9.342E-02	6.176E-02	4.767E-02
TL-208	5.576E-01	1.051E-01	2.857E-02	5.364E-02
BI-210	9.640E-01	6.069E-01	3.126E-01	3.096E-01
PB-210	9.640E-01	6.069E-01	3.126E-01	3.096E-01
PO-210	9.640E-01	6.057E-01	3.126E-01	3.090E-01
BI-211	3.688E+00	5.563E-01	1.458E-01	2.838E-01
PB-212	1.631E+00	2.069E-01	3.956E-02	1.056E-01
PO-212	1.631E+00	2.069E-01	3.956E-02	1.056E-01
BI-214	1.213E+00	2.100E-01	5.378E-02	1.072E-01
PB-214	1.283E+00	2.043E-01	5.085E-02	1.042E-01
PO-214	1.283E+00	2.043E-01	5.085E-02	1.042E-01
PO-216	1.631E+00	2.069E-01	3.956E-02	1.056E-01
PO-218	1.283E+00	2.043E-01	5.085E-02	1.042E-01
RA-224	4.064E+00	1.051E+00	4.508E-01	5.362E-01
RA-226	1.213E+00	2.100E-01	5.378E-02	1.072E-01
AC-228	1.405E+00	3.209E-01	1.084E-01	1.637E-01
RA-228	1.405E+00	3.209E-01	1.084E-01	1.637E-01
TH-228	1.656E+00	2.100E-01	4.016E-02	1.072E-01
TH-230	1.213E+00	2.100E-01	5.378E-02	1.072E-01
TH-232	1.405E+00	3.209E-01	1.084E-01	1.637E-01
TH-234	1.746E+00	7.806E-01	3.689E-01	3.983E-01
U-234	1.213E+00	2.100E-01	5.378E-02	1.072E-01
U-235	9.418E-02	1.633E-01	1.470E-01	8.334E-02
NP-237	1.125E+00	3.083E-01	9.789E-02	1.573E-01
U-238	1.746E+00	7.806E-01	3.689E-01	3.983E-01
AM-243	3.484E-01	5.010E-02	2.198E-02	2.556E-02
ANH-511	9.536E-02	6.887E-02	2.277E-02	3.514E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.682E-02	2.967E-01	2.467E-01	1.514E-01	NOT IDENT.
NA-22	-1.681E-02	4.599E-02	3.747E-02	2.347E-02	NOT IDENT.
NA-24	-1.844E+05	6.363E+05	0.000E+00	3.247E+05	SHORT HLIF
AL-26	2.496E-02	3.195E-02	3.029E-02	1.630E-02	NOT IDENT.
TI-44	3.554E-01	4.481E-02	2.254E-02	2.286E-02	FAIL ABUN
SC-46	-1.988E-02	3.961E-02	3.172E-02	2.021E-02	FAIL ABUN
V-48	-3.933E-02	7.369E-02	5.801E-02	3.760E-02	NOT IDENT.
CR-51	1.249E-01	3.065E-01	2.782E-01	1.564E-01	NOT IDENT.
MN-52	1.684E-01	2.114E-01	1.954E-01	1.079E-01	NOT IDENT.
MN-54	2.036E-02	4.620E-02	3.279E-02	2.357E-02	NOT IDENT.
CO-56	-4.583E-03	3.889E-02	3.256E-02	1.984E-02	NOT IDENT.
CO-57	-2.027E-03	1.733E-02	1.563E-02	8.841E-03	NOT IDENT.
CO-58	1.681E-03	4.192E-02	3.576E-02	2.139E-02	NOT IDENT.
FE-59	-8.069E-02	1.001E-01	8.016E-02	5.107E-02	NOT IDENT.
CO-60	2.855E-03	3.885E-02	3.290E-02	1.982E-02	NOT IDENT.
ZN-65	3.767E-02	1.114E-01	8.531E-02	5.683E-02	NOT IDENT.
GE-68	1.143E+00	1.322E+00	1.212E+00	6.745E-01	NOT IDENT.
AS-73	1.547E-01	1.667E-01	1.494E-01	8.505E-02	NOT IDENT.
AS-74	-1.432E-02	8.662E-02	7.105E-02	4.419E-02	NOT IDENT.
SE-75	-2.776E-03	3.607E-02	3.026E-02	1.840E-02	NOT IDENT.
BR-77	6.449E+00	9.803E+00	8.660E+00	5.001E+00	FAIL ABUN
SR-82	-4.443E-02	4.015E-01	3.403E-01	2.049E-01	NOT IDENT.
RB-83	2.993E-02	6.806E-02	5.926E-02	3.472E-02	NOT IDENT.
RB-84	6.833E-03	7.257E-02	6.162E-02	3.702E-02	NOT IDENT.
KR-85	7.857E+00	6.928E+00	5.678E+00	3.535E+00	NOT IDENT.
SR-85	4.024E-02	3.548E-02	2.908E-02	1.810E-02	NOT IDENT.
RB-86	3.978E-01	8.463E-01	7.549E-01	4.318E-01	NOT IDENT.
Y-88	-2.621E-03	3.131E-02	2.582E-02	1.597E-02	NOT IDENT.
ZR-88	-1.072E-02	2.752E-02	2.337E-02	1.404E-02	NOT IDENT.
Y-91	-1.237E+00	2.160E+01	1.828E+01	1.102E+01	NOT IDENT.
NB-94	-2.752E-02	3.372E-02	2.731E-02	1.721E-02	NOT IDENT.
NB-95	4.240E-02	4.554E-02	4.121E-02	2.323E-02	NOT IDENT.
NB-95M	-2.482E-02	1.127E-01	8.431E-02	5.749E-02	NOT IDENT.
ZR-95	3.275E-02	7.029E-02	6.234E-02	3.586E-02	NOT IDENT.
NB-97	-9.613E+04	8.847E+04	0.000E+00	4.514E+04	SHORT HLIF
ZR-97	1.627E+06	1.690E+06	0.000E+00	8.624E+05	SHORT HLIF
MO-99	-1.602E+00	1.124E+01	9.544E+00	5.732E+00	NOT IDENT.
TC-99M	4.427E+15	2.058E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.190E-02	2.642E-02	2.156E-02	1.348E-02	NOT IDENT.
RH-102	6.413E-03	2.499E-02	2.173E-02	1.275E-02	NOT IDENT.
RU-103	-3.168E-02	3.791E-02	2.987E-02	1.934E-02	FAIL ABUN
RH-106	5.063E-02	2.975E-01	2.636E-01	1.518E-01	FAIL ABUN
RU-106	5.063E-02	2.974E-01	2.636E-01	1.517E-01	FAIL ABUN
AG-108M	-2.620E-02	3.023E-02	2.442E-02	1.542E-02	NOT IDENT.
AG-110M	-4.575E-02	3.552E-02	2.775E-02	1.812E-02	NOT IDENT.
IN-111	-2.789E-01	9.633E-01	7.087E-01	4.915E-01	NOT IDENT.
IN-113M	-4.642E-03	4.039E-02	3.493E-02	2.060E-02	NOT IDENT.
SN-113	-4.642E-03	4.039E-02	3.493E-02	2.060E-02	NOT IDENT.
IN-114M	-6.279E-02	1.541E-01	1.167E-01	7.865E-02	NOT IDENT.
CD-115	1.496E+00	9.400E+00	8.030E+00	4.796E+00	NOT IDENT.
SN-117M	4.032E-02	4.221E-02	3.871E-02	2.153E-02	NOT IDENT.
SB-122	6.603E-01	2.045E+00	1.752E+00	1.044E+00	NOT IDENT.
I-123	2.097E+06	3.878E+06	0.000E+00	1.978E+06	SHORT HLIF
TE-123M	1.193E-02	2.206E-02	1.995E-02	1.126E-02	NOT IDENT.
I-124	-2.332E-01	6.719E-01	4.962E-01	3.428E-01	NOT IDENT.
SB-124	-4.351E-02	6.228E-02	4.465E-02	3.178E-02	FAIL ABUN
SB-125	4.060E-02	8.058E-02	7.181E-02	4.111E-02	FAIL ABUN
TE-125M	1.084E+00	6.827E+00	5.664E+00	3.483E+00	NOT IDENT.
I-126	-5.548E-02	1.912E-01	1.630E-01	9.755E-02	NOT IDENT.
SB-126	-5.538E-02	1.447E-01	1.134E-01	7.381E-02	FAIL ABUN
SB-127	1.832E+00	1.387E+00	1.291E+00	7.076E-01	NOT IDENT.
XE-127	9.206E-03	3.719E-02	3.256E-02	1.897E-02	NOT IDENT.
I-131	-2.000E-02	9.633E-02	8.343E-02	4.915E-02	NOT IDENT.
TE-132	-6.170E-01	5.675E-01	4.500E-01	2.895E-01	NOT IDENT.
BA-133	-1.550E-02	4.090E-02	3.061E-02	2.087E-02	FAIL ABUN
I-133	-2.472E+03	5.157E+03	0.000E+00	2.631E+03	SHORT HLIF
CS-134	1.218E-01	5.370E-02	5.125E-02	2.740E-02	NOT IDENT.
CS-135	9.681E-02	1.488E-01	1.164E-01	7.590E-02	NOT IDENT.
I-135	-6.506E+15	4.627E+15	0.000E+00	2.361E+15	SHORT HLIF
CS-136	-3.693E-03	1.100E-01	9.470E-02	5.610E-02	FAIL ABUN
BA-137M	-1.161E-02	3.993E-02	3.546E-02	2.037E-02	NOT IDENT.
CS-137	-1.227E-02	4.221E-02	3.749E-02	2.154E-02	NOT IDENT.
CE-139	3.517E-03	2.305E-02	2.047E-02	1.176E-02	NOT IDENT.
BA-140	-7.524E-02	2.296E-01	1.868E-01	1.171E-01	NOT IDENT.
LA-140	-5.291E-02	8.062E-02	6.202E-02	4.113E-02	NOT IDENT.

CE-141	-1.339E-05	4.734E-02	4.226E-02	2.415E-02	NOT IDENT.
CE-143	3.444E+02	1.502E+02	0.000E+00	7.664E+01	SHORT HLIF
CE-144	-1.065E-01	1.455E-01	1.258E-01	7.422E-02	NOT IDENT.
PM-144	-1.542E-02	3.298E-02	2.750E-02	1.683E-02	NOT IDENT.
PR-144	-1.045E+00	2.235E+00	1.863E+00	1.140E+00	NOT IDENT.
PM-146	2.145E-02	4.077E-02	3.612E-02	2.080E-02	NOT IDENT.
ND-147	-5.916E-01	5.496E-01	4.171E-01	2.804E-01	FAIL ABUN
PM-149	-8.395E+00	7.602E+01	6.311E+01	3.879E+01	NOT IDENT.
EU-152	9.856E-03	9.089E-02	7.129E-02	4.637E-02	FAIL ABUN
GD-153	-5.138E-02	5.273E-02	4.106E-02	2.690E-02	NOT IDENT.
EU-154	-4.500E-02	1.287E-01	1.050E-01	6.566E-02	NOT IDENT.
TB-160	-1.345E-01	1.464E-01	1.125E-01	7.468E-02	FAIL ABUN
HO-166M	1.652E-02	6.505E-02	5.709E-02	3.319E-02	NOT IDENT.
TM-171	-2.236E+00	1.198E+01	9.382E+00	6.111E+00	NOT IDENT.
LU-176	5.544E-03	1.927E-02	1.747E-02	9.832E-03	FAIL ABUN
LU-177	2.070E+00	1.326E+00	8.676E-01	6.767E-01	FAIL ABUN
LU-177M	-1.239E-01	1.640E-01	1.351E-01	8.370E-02	NOT IDENT.
HF-181	-2.239E-02	3.640E-02	2.942E-02	1.857E-02	NOT IDENT.
W-181	5.105E-02	1.396E-01	1.123E-01	7.124E-02	NOT IDENT.
TA-182	-1.409E-01	2.220E-01	1.792E-01	1.133E-01	FAIL ABUN
RE-183	-4.546E-02	8.642E-02	7.362E-02	4.409E-02	FAIL ABUN
RE-184	-1.441E-01	1.966E-01	1.588E-01	1.003E-01	NOT IDENT.
OS-185	1.227E-02	4.171E-02	3.711E-02	2.128E-02	NOT IDENT.
RE-188	-2.263E-02	1.315E-01	1.159E-01	6.710E-02	NOT IDENT.
W-188	4.882E-01	6.417E+00	5.116E+00	3.274E+00	FAIL ABUN
IR-192	-1.737E-02	2.951E-02	2.539E-02	1.506E-02	FAIL ABUN
AU-195	2.321E-01	1.411E-01	1.331E-01	7.201E-02	FAIL ABUN
TL-200	2.257E+02	3.730E+02	0.000E+00	1.903E+02	SHORT HLIF
TL-201	-2.928E+00	5.270E+00	4.526E+00	2.689E+00	NOT IDENT.
TL-202	5.024E-02	6.580E-02	5.919E-02	3.357E-02	NOT IDENT.
HG-203	3.327E-02	3.957E-02	3.122E-02	2.019E-02	NOT IDENT.
BI-207	2.215E-02	5.638E-02	5.007E-02	2.876E-02	FAIL ABUN
TL-207	-6.871E-01	5.821E-01	4.718E-01	2.970E-01	FAIL ABUN
PO-209	2.698E+00	8.174E+00	7.055E+00	4.171E+00	NOT IDENT.
PB-211	4.782E-02	8.335E-01	7.256E-01	4.252E-01	NOT IDENT.
BI-212	8.321E-01	4.791E-01	3.547E-01	2.444E-01	FAIL ABUN
PO-215	-6.871E-01	5.821E-01	4.718E-01	2.970E-01	FAIL ABUN
RN-219	8.012E-02	3.724E-01	3.276E-01	1.900E-01	FAIL ABUN
RN-220	-1.076E+01	2.559E+01	2.076E+01	1.306E+01	NOT IDENT.
RA-223	-6.871E-01	5.821E-01	4.718E-01	2.970E-01	FAIL ABUN
AC-227	9.926E-02	3.247E-01	2.750E-01	1.657E-01	FAIL ABUN
TH-227	9.926E-02	3.248E-01	2.750E-01	1.657E-01	FAIL ABUN
TH-229	7.246E-02	3.989E-01	3.498E-01	2.035E-01	FAIL ABUN
PA-231	-1.841E-01	1.354E+00	1.124E+00	6.910E-01	FAIL ABUN
TH-231	-6.871E-01	5.821E-01	4.718E-01	2.970E-01	FAIL ABUN
U-231	-5.505E-01	6.384E-01	5.068E-01	3.257E-01	FAIL ABUN
PA-233	-3.597E-02	5.395E-02	4.624E-02	2.753E-02	FAIL ABUN
PA-234	6.871E-02	3.170E-01	2.697E-01	1.618E-01	FAIL ABUN
PA-234M	5.829E+00	4.881E+00	4.438E+00	2.490E+00	NOT IDENT.
NP-236	-2.222E-02	6.166E-02	5.370E-02	3.146E-02	NOT IDENT.
NP-239	3.937E-02	1.253E-01	1.153E-01	6.393E-02	FAIL ABUN
AM-241	3.298E-02	4.676E-02	3.841E-02	2.386E-02	NOT IDENT.
CM-243	-5.847E-03	6.463E-02	5.323E-02	3.298E-02	FAIL ABUN
AM-246	7.069E-02	1.531E-01	1.364E-01	7.810E-02	NOT IDENT.
CM-247	2.235E-02	3.309E-02	2.986E-02	1.688E-02	FAIL ABUN
CF-249	-2.807E-02	3.585E-02	2.968E-02	1.829E-02	NOT IDENT.
CF-251	-6.670E-02	1.026E-01	8.722E-02	5.232E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	291.9110
46.50	291.9110
46.50	291.9110
48.70	302.7287
49.72	247.8904
51.35	338.5535
52.39	293.0402
52.97	290.4685
53.15	277.5246
53.44	303.1216
54.07	291.8029
56.28	322.2166
56.28	322.2210
57.37	0.0000
57.53	379.6635
57.53	379.6661
57.60	368.5989
57.98	357.9639
57.98	357.9639
59.32	358.3395
59.32	358.3395
59.40	343.4534
59.54	343.6386
59.72	364.9005
60.01	380.3403
61.10	407.5845
61.14	421.2346
61.30	421.4900
63.00	410.4932
63.29	410.9333
63.29	410.9333
63.58	411.3714
64.28	441.4494
65.12	390.7029
65.20	390.8163
65.20	390.8163
66.05	451.9670
66.72	449.9587
66.83	456.3062
66.91	456.4327
67.20	453.8152
67.20	453.8152
67.75	466.2908
67.85	454.8530
68.90	421.5812
68.90	421.5812
69.30	459.4853
69.67	484.2070
70.82	489.2344
70.82	489.2344
70.83	489.2504
72.80	432.7059
72.87	432.8066
72.87	432.8066
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74.81	435.5789
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74.81	435.5789
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74.81	435.5789
74.97	435.8055
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75.70	436.8405
77.11	438.8211
77.11	438.8211

77.11	438.8211
77.11	438.8211
77.11	438.8211
77.11	438.8211
77.11	438.8211
78.38	440.5891
79.62	442.3012
79.80	442.5501
79.80	442.5501
80.11	442.9753
80.18	443.0705
80.30	443.2355
80.30	443.2355
80.57	443.6048
81.00	444.1922
81.07	444.2874
81.07	444.2874
81.07	444.2874
81.07	444.2874
82.60	321.3834
83.37	304.2307
83.78	296.4628
83.78	296.4628
83.78	296.4628
83.78	296.4628
84.21	296.8442
84.90	297.4551
85.43	297.9217
86.29	298.6752
86.50	298.8585
86.54	298.8937
86.59	298.9381
86.72	299.0511
86.79	299.1103
86.94	299.2436
87.30	299.5565
87.30	299.5565
87.30	299.5565
87.30	299.5565
87.30	299.5565
87.30	299.5565
87.30	299.5565
87.57	299.7916
87.88	300.0601
88.03	300.1897
88.36	300.4748
88.47	300.5710
89.95	301.8448
91.11	302.8353
92.29	284.2202
92.38	284.2921
92.38	284.2921
93.35	285.0558
94.00	285.5667
94.67	286.0880
94.67	286.0915
94.90	281.2272
94.90	281.2272
94.90	281.2272
94.90	281.2272
95.87	303.4644
95.87	303.4644
96.73	347.2621
97.43	323.7849
98.44	259.7252
98.44	259.7252
98.88	256.6281
99.55	279.2158
99.55	279.2158
99.86	291.3701
100.00	291.4762
100.10	291.5562
103.18	264.2390
103.76	267.2134
105.00	268.0536
105.31	280.7912
108.00	236.1471
109.28	294.4782

111.00	303.1618
111.00	303.1618
111.76	280.8952
112.95	257.9279
115.19	294.6998
116.30	254.6518
117.00	247.0677
117.00	247.0677
117.66	269.6991
121.11	253.8922
121.62	243.4063
121.78	246.1900
122.06	258.0326
122.32	252.7854
122.32	252.7854
122.32	252.7854
122.32	252.7854
123.07	276.6385
127.23	300.1040
129.76	264.2581
131.20	339.3661
133.02	255.0438
133.54	271.9141
135.34	247.0315
136.00	263.1183
136.25	262.3272
136.48	242.0484
140.51	268.3560
140.51	0.0000
142.18	291.7713
142.65	279.8388
143.76	264.4551
144.24	266.5907
144.24	266.5907
144.24	266.5907
144.24	266.5907
145.22	262.3868
145.44	280.4406
147.16	275.6987
152.43	260.3125
152.70	233.6348
153.22	219.4863
154.21	243.8998
154.21	243.8998
154.21	243.8998
154.21	243.8998
155.03	272.1641
156.02	317.9486
158.56	235.2258
159.00	0.0000
159.00	247.0390
160.31	265.1103
161.27	280.1631
162.32	263.1500
162.64	254.5244
163.35	245.0840
163.89	251.1857
165.85	246.1768
167.43	256.6989
171.28	233.6689
171.86	259.6706
172.10	267.7094
176.55	267.7437
176.60	267.7656
181.06	208.3603
184.41	214.0603
185.71	216.0334
186.00	216.1331
190.27	223.7452
192.34	201.9258
193.63	220.8220
197.04	234.3824
198.01	218.1883
198.60	232.8735
200.40	195.1143
201.83	228.8220
202.84	219.7960
205.31	219.5639

208.36	223.7081
208.81	213.3478
209.75	213.6411
209.75	213.6411
210.97	248.2879
215.65	211.2290
216.55	222.1305
218.09	238.5947
222.10	206.7401
223.80	235.1470
226.40	204.7432
227.00	217.8552
227.08	217.8799
227.20	222.2299
228.16	226.8420
228.18	226.8484
228.18	226.8484
231.56	0.0000
235.69	224.2514
236.00	224.3434
236.00	224.3434
238.63	203.7648
238.63	203.7648
238.63	203.7648
238.63	203.7648
239.00	203.8632
240.98	204.3949
241.98	204.6617
241.98	204.6617
241.98	204.6617
244.69	180.5379
245.39	182.3587
247.94	189.6109
248.90	164.3079
249.79	170.0519
252.40	167.2684
252.85	186.3325
252.85	186.3325
254.15	0.0000
256.20	159.1029
256.20	159.1029
260.50	162.2051
260.90	156.6493
262.80	168.3101
264.65	156.2355
268.24	162.0288
268.79	179.2030
269.46	182.7634
269.46	182.7634
269.46	182.7634
269.46	182.7634
271.23	162.0381
273.65	151.0593
276.40	149.8260
277.35	181.0231
277.60	181.0776
277.60	181.0776
278.00	170.8088
278.60	164.0234
279.20	155.4977
279.53	157.2866
280.46	155.7257
281.68	159.4109
283.67	166.7197
284.30	151.7779
285.00	156.5387
285.90	155.5373
286.10	155.5727
286.10	155.5727
287.40	170.9198
288.45	0.0000
290.67	145.6432
290.80	144.2629
291.72	148.6174
293.26	0.0000
293.70	167.2130
295.21	135.1219
295.21	135.1219

295.21	135.1219
295.96	135.2344
296.50	135.3141
297.23	98.7468
298.57	98.8921
299.80	120.2451
299.80	120.2451
300.09	120.2825
300.09	120.2825
300.09	120.2825
300.09	120.2825
300.12	120.2866
301.29	121.8571
302.84	127.7402
303.76	129.2884
303.91	136.4133
304.40	135.0642
304.40	135.0642
304.84	139.8705
306.84	125.6190
308.46	133.8707
311.98	158.5589
316.51	159.3151
318.01	148.7482
319.02	130.8553
319.41	136.3253
320.08	131.9026
323.87	175.9546
323.87	175.9546
323.87	175.9546
323.87	175.9546
325.23	178.9250
328.77	121.2314
333.44	143.6001
334.20	134.9116
334.20	134.9116
334.30	134.9251
338.28	135.2756
338.28	135.2756
338.28	135.2756
338.28	135.2756
338.32	135.2801
338.32	135.2801
338.32	135.2801
340.50	134.2805
340.57	134.2894
344.27	125.8917
345.85	137.2098
350.59	0.0000
351.07	125.7900
351.92	125.8930
351.92	125.8930
351.92	125.8930
355.39	0.0000
356.01	128.8173
364.48	119.8435
366.43	123.8419
367.43	120.1710
367.94	0.0000
369.80	129.9155
374.96	124.8134
383.85	100.8440
387.95	138.8035
388.63	123.4551
391.69	129.5896
391.69	129.5896
392.90	129.7266
398.62	129.3978
400.65	125.7246
401.10	129.6738
401.81	120.9727
402.60	111.2916
404.84	121.2867
410.95	99.3017
411.60	129.8509
413.65	138.9410
414.70	126.2422
415.30	114.4636

415.76	108.5851
417.63	0.0000
418.52	117.7380
423.70	100.3558
427.08	105.6151
427.89	95.7144
432.53	121.0942
433.93	123.2327
439.47	118.7472
439.56	105.6729
439.89	105.7001
443.98	116.1423
444.90	121.2799
445.03	109.1635
445.03	109.1635
445.03	109.1635
445.03	109.1635
453.90	100.7599
463.38	93.2911
468.07	79.0137
473.00	103.2623
475.06	81.7026
475.35	81.7207
476.78	91.1273
477.59	86.0003
477.96	80.8422
482.03	90.4409
484.57	94.7741
487.03	68.8611
490.36	0.0000
492.35	89.0272
497.08	104.0424
507.63	0.0000
510.53	0.0000
510.84	96.5688
511.00	96.5799
511.85	96.6368
511.85	96.6368
513.99	76.5742
513.99	76.5742
520.41	92.9393
520.65	86.5421
527.90	78.3823
528.96	0.0000
529.64	77.4009
529.87	0.0000
531.02	107.5989
537.32	81.0425
543.00	81.3492
546.56	0.0000
549.76	96.9662
552.65	82.9580
555.20	78.7236
563.23	100.0145
563.90	96.7603
568.70	95.9528
569.32	87.1633
569.50	87.1753
569.67	87.1850
573.80	86.3051
574.00	86.3170
574.64	97.4236
578.91	78.1473
579.30	0.0000
583.14	85.6992
585.48	58.8505
591.81	74.9722
592.07	74.9824
593.00	64.9473
595.88	84.1324
600.56	71.9980
602.52	0.0000
602.71	91.6167
602.71	91.6167
603.60	87.1581
604.41	88.7041
604.70	88.7209
609.31	85.0452

609.31	85.0452
609.31	85.0452
609.31	85.0452
610.33	98.0739
612.46	86.1123
614.37	72.5996
618.01	92.7637
621.84	79.3004
621.84	79.3004
631.29	78.8256
633.02	71.5635
633.10	71.5673
634.78	65.2087
635.90	75.3595
636.97	81.8426
645.85	80.4134
646.12	80.4261
656.30	93.9058
657.75	109.8011
657.90	0.0000
661.65	85.7963
661.65	85.7963
664.57	0.0000
666.33	108.4583
666.33	108.4583
675.00	92.0688
677.61	74.3248
685.20	70.8545
692.80	71.1456
695.00	106.3672
696.49	88.3931
696.49	88.3931
697.00	82.7137
697.49	71.3232
698.33	72.3076
698.50	78.0221
699.00	81.8512
702.63	101.0804
706.10	93.6216
706.58	0.0000
706.67	93.6503
709.31	88.0401
711.68	92.9386
713.82	86.3284
717.42	75.9199
720.50	80.6135
721.93	0.0000
722.20	85.1006
722.78	91.5511
722.78	91.5511
722.89	91.5558
722.95	94.7707
723.30	94.7875
724.18	83.5796
727.18	68.5784
733.00	74.7340
735.90	67.9133
739.58	77.7617
742.81	76.9151
744.21	62.3547
747.13	84.8887
751.79	81.1742
752.31	88.0422
753.82	86.1523
755.35	71.5208
756.15	69.5890
756.87	64.7125
763.93	114.1337
765.79	86.6637
766.42	89.6448
766.84	95.5767
776.49	85.1371
778.00	75.2931
778.57	79.2773
778.89	79.2910
783.80	61.5958
785.46	65.6213
792.07	91.7642

795.84	65.9484
796.30	77.9562
798.80	113.0690
801.93	85.1785
805.60	77.2951
810.29	79.4783
810.76	77.4831
815.85	77.6674
817.79	66.6316
818.51	70.6938
819.60	70.7297
826.30	60.8130
828.27	0.0000
831.60	76.2012
831.96	76.2140
834.83	62.7461
836.80	0.0000
846.75	65.4734
848.13	72.6797
856.28	0.0000
856.80	66.7964
860.37	71.0198
867.32	56.0458
867.82	49.0516
871.10	54.8102
873.19	55.8945
874.81	52.8266
875.33	0.0000
876.40	51.8274
879.36	76.8039
880.27	68.5282
880.51	69.5730
881.50	64.4082
883.24	54.0604
884.67	57.2156
889.25	66.7094
896.60	69.0116
898.02	64.8684
899.00	64.8957
903.28	71.6549
911.07	61.3711
911.07	61.3711
911.07	61.3711
919.63	62.2964
920.93	61.2738
925.00	67.7281
925.24	73.0261
926.50	66.7114
935.52	61.6462
937.48	81.9065
944.10	60.7963
946.00	61.9110
949.00	54.5062
962.29	44.7713
964.01	53.7622
966.15	53.8086
968.20	53.8525
969.11	53.8721
969.11	53.8721
969.11	53.8721
977.42	56.2123
980.50	44.3753
983.50	66.1007
989.30	52.1320
996.32	76.2344
1001.03	43.6426
1001.68	40.3793
1004.76	75.3929
1021.30	0.0000
1024.50	0.0000
1034.80	63.5504
1036.00	58.0525
1037.82	70.0780
1038.57	64.5626
1038.76	0.0000
1045.16	69.3451
1046.59	74.0104
1048.07	62.9421

1050.47	66.7031
1050.47	66.7031
1062.04	75.3640
1063.62	64.2355
1076.63	62.6735
1077.35	56.1401
1078.86	62.7225
1085.78	63.8192
1099.22	82.0439
1112.02	70.2759
1112.84	64.4390
1115.52	73.1721
1120.29	83.0671
1120.29	83.0671
1120.29	83.0671
1120.29	83.0671
1120.51	84.5674
1121.28	84.5891
1124.00	0.0000
1129.67	89.2239
1131.51	0.0000
1147.95	0.0000
1167.94	73.4023
1173.22	79.3407
1175.09	72.6135
1177.93	80.4333
1189.05	73.9250
1204.90	89.9598
1205.75	0.0000
1213.00	90.1994
1221.42	97.3282
1230.97	113.4090
1235.34	94.8047
1236.41	0.0000
1238.25	87.9751
1246.25	60.4515
1260.41	0.0000
1271.85	48.9541
1274.45	59.9927
1274.54	59.9927
1291.56	60.3125
1298.22	0.0000
1312.09	54.6240
1325.50	37.5796
1325.50	37.5796
1332.49	36.6416
1333.61	47.8529
1360.21	35.9186
1362.66	0.0000
1365.15	38.0268
1368.21	37.0313
1368.53	0.0000
1376.25	27.8394
1384.27	34.1051
1394.10	30.0573
1395.20	33.1771
1407.95	22.8925
1434.06	17.8211
1436.60	15.7355
1457.56	0.0000
1460.81	16.8984
1489.15	19.1587
1509.49	28.8962
1596.49	26.2773
1620.62	12.2750
1678.03	0.0000
1691.02	14.4120
1691.02	14.4120
1706.46	0.0000
1750.46	0.0000
1764.49	7.8217
1764.49	7.8217
1764.49	7.8217
1764.49	7.8217
1770.23	10.2795
1771.40	11.9962
1791.20	0.0000
1808.65	10.8646

1836.01 11.9259

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246837005

Total Uranium Activity	5.2383E+00	ug/g
Total Uranium Counting Unc.	2.3236E+00	ug/g
Total Uranium Tpu	1.1855E-06	ug/g
Total Uranium Mda	1.0996E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 952641                    SAMPLE ID  : G246837005       *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   :  8-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 12:07:14.42    SAMPLE ALQT:  137.480 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.733E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.212E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.890E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.403E+00
```

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:14:17.72

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837006.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:13:46
Sample ID         : G246837006           Sample quantity  : 1.20240E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.15  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.85*	213	459	1.01	124.89	120	10	2.95E-02	20.8	
2	6	74.52*	342	544	1.59	148.24	143	15	4.75E-02	14.4	1.64E+00
3	6	76.92*	494	322	1.02	153.05	143	15	6.86E-02	7.5	
4	0	87.03	154	456	0.93	173.27	170	7	2.14E-02	24.4	
5	0	92.57*	457	509	1.12	184.37	181	10	6.34E-02	11.2	
6	0	185.65*	230	359	1.18	370.62	366	11	3.19E-02	18.5	
7	0	208.75	70	181	0.94	416.85	413	7	9.77E-03	33.9	
8	5	238.36*	946	141	1.13	476.10	469	18	1.31E-01	4.0	1.10E+00
9	5	241.30*	292	190	1.87	481.97	469	18	4.06E-02	14.6	
10	0	269.88	50	163	0.97	539.18	535	8	6.94E-03	46.4	
11	0	294.89	251	176	1.29	589.22	585	9	3.48E-02	11.4	
12	0	299.72	106	160	1.08	598.89	594	10	1.47E-02	24.6	
13	0	337.89*	230	127	1.24	675.27	670	10	3.19E-02	11.5	
14	0	351.69*	491	212	1.32	702.87	695	14	6.83E-02	7.8	
15	0	461.98	62	135	1.52	923.57	920	13	8.61E-03	40.2	
16	0	582.84*	235	107	1.15	1165.45	1160	11	3.27E-02	11.0	
17	0	608.92*	386	93	1.38	1217.64	1211	14	5.35E-02	7.6	
18	0	661.32	127	75	1.36	1322.51	1316	12	1.76E-02	16.3	
19	0	727.27	63	70	1.64	1454.48	1449	11	8.80E-03	28.7	
20	0	794.60	36	48	1.01	1589.23	1585	9	5.02E-03	39.2	
21	0	859.42	79	56	2.41	1718.95	1711	16	1.10E-02	24.0	
22	0	910.76*	190	53	1.54	1821.71	1815	16	2.63E-02	11.5	
23	2	963.58	41	34	2.19	1927.42	1922	24	5.69E-03	32.9	2.44E+00
24	2	968.28	99	43	2.19	1936.83	1922	24	1.38E-02	18.1	
25	0	1120.16*	61	59	1.11	2240.81	2235	12	8.41E-03	29.2	
26	0	1377.38	35	7	1.99	2755.64	2751	10	4.83E-03	22.4	
27	0	1460.03*	966	24	2.32	2921.07	2911	19	1.34E-01	3.5	
28	0	1587.05	26	9	2.17	3175.31	3165	15	3.66E-03	30.1	
29	0	1763.59*	61	0	2.43	3528.69	3522	15	8.47E-03	14.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 14:14:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 8-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 12:13:46
Sample ID : G246837006 Sample quantity : 120.24 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA2 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:03.15 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.749E+01	3.236E+00	6.780E-01	6.446E-02	40.539
CD-109	+	88.03	*	2.525E+00	1.257E+00	1.492E+00	1.498E-01	1.693
SN-126	+	64.28		2.748E+00	1.212E+00	9.289E-01	1.378E-01	2.959
	+	86.94		1.032E+00	6.619E-01	6.380E-01	2.657E-01	1.617
	+	87.57	*	2.482E-01	1.236E-01	1.532E-01	1.531E-02	1.621
BA-137M	+	661.65	*	2.129E-01	7.171E-02	7.749E-02	6.676E-03	2.747
CS-137	+	661.65	*	2.251E-01	7.581E-02	8.191E-02	7.071E-03	2.747
TL-208		277.35		8.568E-02	3.981E-01	6.758E-01	1.027E-01	0.127
		510.84		3.312E-01	2.424E-01	4.541E-01	5.881E-02	0.729
	+	583.14	*	3.804E-01	9.172E-02	7.202E-02	7.215E-03	5.282
	+	860.37		1.196E+00	5.879E-01	4.937E-01	5.204E-02	2.423
BI-211		72.87		5.053E+00	3.721E+00	5.963E+00	5.133E-01	0.847
	+	351.07	*	3.538E+00	6.869E-01	3.641E-01	4.201E-02	9.717
PB-212	+	74.81		2.467E+00	7.760E-01	5.861E-01	7.506E-02	4.209
	+	77.11		1.986E+00	3.483E-01	3.287E-01	2.940E-02	6.042
	+	87.30		1.148E+00	5.829E-01	7.108E-01	1.003E-01	1.615
	+	238.63	*	1.485E+00	2.213E-01	9.222E-02	1.161E-02	16.101
	+	300.09		2.573E+00	1.312E+00	1.174E+00	1.587E-01	2.191
PO-212	+	74.81		2.467E+00	7.760E-01	5.861E-01	7.506E-02	4.209
	+	77.11		1.986E+00	3.483E-01	3.287E-01	2.940E-02	6.042
	+	87.30		1.148E+00	5.829E-01	7.108E-01	1.003E-01	1.615
		115.19		4.297E-01	3.951E+00	6.555E+00	5.512E-01	0.066
	+	238.63	*	1.485E+00	2.213E-01	9.222E-02	1.161E-02	16.101
	+	300.09		2.573E+00	1.312E+00	1.174E+00	1.587E-01	2.191
BI-214	+	609.31	*	1.174E+00	2.166E-01	1.274E-01	1.346E-02	9.216
	+	1120.29		9.645E-01	5.734E-01	4.458E-01	4.853E-02	2.164
	+	1764.49		1.337E+00	3.992E-01	2.297E-01	1.947E-02	5.821
PB-214	+	74.81		4.251E+00	1.315E+00	1.010E+00	1.158E-01	4.209
	+	77.11		3.405E+00	6.510E-01	5.636E-01	6.621E-02	6.042
	+	87.30		1.967E+00	9.907E-01	1.218E+00	1.534E-01	1.615
	+	241.98		2.757E+00	8.837E-01	5.430E-01	7.104E-02	5.078
	+	295.21		1.069E+00	2.852E-01	2.453E-01	3.371E-02	4.358
	+	351.92	*	1.231E+00	2.474E-01	1.269E-01	1.605E-02	9.696
PO-214	+	74.81		4.251E+00	1.315E+00	1.010E+00	1.158E-01	4.209

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.405E+00	6.510E-01	5.636E-01	6.621E-02	6.042
	+	87.30		1.967E+00	9.907E-01	1.218E+00	1.534E-01	1.615
	+	241.98		2.757E+00	8.837E-01	5.430E-01	7.104E-02	5.078
	+	295.21		1.069E+00	2.852E-01	2.453E-01	3.371E-02	4.358
	+	351.92	*	1.231E+00	2.474E-01	1.269E-01	1.605E-02	9.696
PO-216	+	74.81		2.467E+00	7.760E-01	5.861E-01	7.506E-02	4.209
	+	77.11		1.986E+00	3.483E-01	3.287E-01	2.940E-02	6.042
	+	87.30		1.148E+00	5.829E-01	7.108E-01	1.003E-01	1.615
	+	238.63	*	1.485E+00	2.213E-01	9.222E-02	1.161E-02	16.101
	+	300.09		2.573E+00	1.312E+00	1.174E+00	1.587E-01	2.191
PO-218	+	74.81		4.251E+00	1.315E+00	1.010E+00	1.158E-01	4.209
	+	77.11		3.405E+00	6.510E-01	5.636E-01	6.621E-02	6.042
	+	87.30		1.967E+00	9.907E-01	1.218E+00	1.534E-01	1.615
	+	241.98		2.757E+00	8.837E-01	5.430E-01	7.104E-02	5.078
	+	295.21		1.069E+00	2.852E-01	2.453E-01	3.371E-02	4.358
	+	351.92	*	1.231E+00	2.474E-01	1.269E-01	1.605E-02	9.696
RA-224	+	240.98	*	5.228E+00	1.650E+00	1.050E+00	1.239E-01	4.979
RA-226	+	609.31	*	1.174E+00	2.166E-01	1.274E-01	1.346E-02	9.216
	+	1120.29		9.645E-01	5.734E-01	4.458E-01	4.853E-02	2.164
	+	1764.49		1.337E+00	3.992E-01	2.297E-01	1.947E-02	5.821
AC-228	+	338.32		1.825E+00	8.725E-01	4.191E-01	1.758E-01	4.355
	+	911.07	*	1.361E+00	3.570E-01	2.285E-01	2.849E-02	5.957
	+	969.11		1.257E+00	5.454E-01	4.123E-01	9.824E-02	3.050
RA-228	+	338.32		1.825E+00	8.725E-01	4.191E-01	1.758E-01	4.355
	+	911.07	*	1.361E+00	3.570E-01	2.285E-01	2.849E-02	5.957
	+	969.11		1.257E+00	5.454E-01	4.123E-01	9.824E-02	3.050
TH-228	+	74.81		2.504E+00	7.526E-01	5.949E-01	5.251E-02	4.209
	+	77.11		2.016E+00	3.535E-01	3.337E-01	2.984E-02	6.042
	+	87.30		1.165E+00	5.801E-01	7.215E-01	7.189E-02	1.615
	+	238.63	*	1.507E+00	2.247E-01	9.361E-02	1.178E-02	16.101
	+	300.09		2.612E+00	2.024E+00	1.192E+00	7.141E-01	2.191
TH-230	+	609.31	*	1.174E+00	2.166E-01	1.274E-01	1.346E-02	9.216
	+	1120.29		9.645E-01	5.734E-01	4.458E-01	4.853E-02	2.164
	+	1764.49		1.337E+00	3.992E-01	2.297E-01	1.947E-02	5.821
TH-232	+	338.32		1.825E+00	4.680E-01	4.191E-01	4.818E-02	4.355
	+	911.07	*	1.361E+00	3.570E-01	2.285E-01	2.849E-02	5.957
	+	969.11		1.257E+00	5.454E-01	4.123E-01	9.824E-02	3.050
TH-234	+	63.29	*	6.943E+00	3.133E+00	2.392E+00	4.223E-01	2.903
	+	92.38		4.714E+00	1.368E+00	8.633E-01	1.600E-01	5.461
U-234	+	609.31	*	1.174E+00	2.166E-01	1.274E-01	1.346E-02	9.216
	+	1120.29		9.645E-01	5.734E-01	4.458E-01	4.853E-02	2.164
	+	1764.49		1.337E+00	3.992E-01	2.297E-01	1.947E-02	5.821
NP-237	+	86.50	*	7.289E-01	3.928E-01	4.500E-01	1.029E-01	1.620
		95.87		-1.622E+00	1.161E+00	1.491E+00	3.706E-01	-1.087
U-238	+	63.29	*	6.943E+00	3.133E+00	2.392E+00	4.223E-01	2.903
	+	92.38		4.714E+00	1.144E+00	8.633E-01	8.219E-02	5.461
AM-243	+	74.67	*	3.999E-01	1.201E-01	9.538E-02	8.340E-03	4.193
	+	86.72		2.733E+01	1.361E+01	1.695E+01	1.677E+00	1.613
		117.66		7.905E-01	4.163E+00	6.922E+00	5.800E-01	0.114

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		3.535E+00	2.098E+01	3.310E+01	2.995E+00	0.107

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	9.326E-02	3.713E-01	6.108E-01	6.478E-02	0.153
NA-22		1274.54	*	-3.531E-02	5.456E-02	8.417E-02	7.463E-03	-0.419
NA-24		1368.53	*	4.920E-01	5.456E-02	Half-Life too short		
AL-26		1129.67		4.382E-01	1.845E+00	3.139E+00	2.682E-01	0.140
		1808.65	*	-1.057E-02	3.449E-02	5.345E-02	4.424E-03	-0.198
TI-44		67.85		-1.582E-02	5.307E-02	8.493E-02	7.007E-03	-0.186
	+	78.38	*	3.665E-01	6.427E-02	7.285E-02	6.595E-03	5.031
SC-46		889.25	*	2.919E-02	4.605E-02	7.919E-02	8.051E-03	0.369
	+	1120.51		1.650E-01	9.746E-02	1.403E-01	1.212E-02	1.176
V-48		944.10		-4.284E-01	1.080E+00	1.669E+00	1.670E-01	-0.257
		983.50	*	2.795E-02	8.319E-02	1.384E-01	1.354E-02	0.202
		1312.09		8.275E-02	9.934E-02	1.770E-01	1.620E-02	0.468
CR-51		320.08	*	1.528E-01	4.233E-01	7.180E-01	8.760E-02	0.213
MN-52		744.21		-7.869E-02	2.641E-01	4.231E-01	3.897E-02	-0.186
		848.13		2.038E+00	8.022E+00	1.337E+01	1.325E+00	0.152
		935.52		1.933E-01	2.864E-01	4.931E-01	4.957E-02	0.392
		1246.25		1.854E+00	9.018E+00	1.513E+01	1.306E+00	0.123
		1333.61		-3.539E+00	6.263E+00	9.546E+00	8.895E-01	-0.371
		1434.06	*	-7.988E-02	2.332E-01	3.560E-01	3.311E-02	-0.224
MN-54		834.83	*	-1.988E-02	4.238E-02	6.598E-02	6.482E-03	-0.301
CO-56		846.75	*	3.722E-02	4.696E-02	8.178E-02	8.097E-03	0.455
		977.42		3.009E-01	3.645E+00	5.753E+00	5.649E-01	0.052
		1037.82		-2.397E-02	3.527E-01	5.867E-01	5.760E-02	-0.041
		1175.09		2.706E-01	2.511E+00	4.203E+00	3.391E-01	0.064
		1238.25		8.121E-02	1.176E-01	2.032E-01	1.792E-02	0.400
		1360.21		1.083E-01	9.212E-01	1.536E+00	1.432E-01	0.070
		1771.40		-2.891E-01	2.748E-01	3.568E-01	3.014E-02	-0.810
CO-57		122.06	*	1.784E-03	2.771E-02	4.575E-02	3.824E-03	0.039
		136.48		-7.550E-02	2.179E-01	3.504E-01	3.308E-02	-0.215
CO-58		810.76	*	1.161E-02	4.720E-02	7.886E-02	7.638E-03	0.147
FE-59		142.65		1.063E+00	3.300E+00	5.247E+00	4.758E-01	0.203
		192.34		-2.965E-02	1.067E+00	1.706E+00	2.547E-01	-0.017
		1099.22	*	-3.317E-02	1.108E-01	1.795E-01	1.712E-02	-0.185
		1291.56		-1.266E-02	1.439E-01	2.340E-01	2.367E-02	-0.054
CO-60		1173.22		2.531E-02	5.138E-02	8.897E-02	7.165E-03	0.285
		1332.49	*	-1.367E-02	4.827E-02	7.634E-02	7.113E-03	-0.179
ZN-65		1115.52	*	-7.166E-02	1.113E-01	1.436E-01	1.249E-02	-0.499
GE-68		1077.35	*	1.828E-01	1.443E+00	2.437E+00	2.208E-01	0.075
AS-73		53.44	*	1.064E+00	1.205E+00	2.128E+00	1.761E-01	0.500
AS-74		595.88	*	-1.343E-02	1.135E-01	1.711E-01	1.597E-02	-0.078
		634.78		-3.995E-02	3.982E-01	6.589E-01	5.891E-02	-0.061
SE-75		66.05		-2.507E+00	5.821E+00	8.692E+00	8.715E-01	-0.288
		96.73		-1.363E+00	9.247E-01	1.224E+00	1.710E-01	-1.113

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		121.11		-5.304E-03	1.498E-01	2.463E-01	2.714E-02	-0.022
		136.00		-1.965E-02	4.127E-02	6.596E-02	5.837E-03	-0.298
		198.60		5.665E-01	2.074E+00	3.300E+00	3.864E-01	0.172
		264.65	*	-1.036E-02	5.076E-02	7.835E-02	9.577E-03	-0.132
		279.53		3.188E-02	1.142E-01	1.945E-01	2.456E-02	0.164
		303.91		-1.249E+00	2.542E+00	3.572E+00	5.106E-01	-0.350
		400.65		7.938E-02	2.967E-01	4.939E-01	6.045E-02	0.161
BR-77	+	87.88		5.288E+02	2.633E+02	3.546E+02	3.557E+01	1.491
		200.40		1.095E+02	1.829E+02	3.001E+02	3.298E+01	0.365
	+	239.00		2.311E+02	3.285E+01	3.905E+01	4.594E+00	5.918
		249.79		9.396E+00	6.936E+01	1.181E+02	1.411E+01	0.080
		281.68		-7.213E+01	9.334E+01	1.490E+02	1.845E+01	-0.484
		297.23		7.664E+01	8.925E+01	1.052E+02	1.285E+01	0.728
		303.76		-9.970E+01	2.089E+02	2.940E+02	3.565E+01	-0.339
		439.47		-5.065E+01	1.550E+02	2.453E+02	2.471E+01	-0.206
		484.57		4.245E+00	2.650E+02	4.278E+02	4.281E+01	0.010
		520.65	*	8.366E+00	1.124E+01	1.911E+01	1.886E+00	0.438
		574.64		-1.237E+02	2.120E+02	3.392E+02	3.229E+01	-0.365
		578.91		-4.082E+01	1.035E+02	1.447E+02	1.373E+01	-0.282
		585.48		5.626E+02	2.300E+02	3.983E+02	3.756E+01	1.412
		755.35		-1.328E+01	1.952E+02	3.193E+02	2.966E+01	-0.042
		817.79		3.796E+01	1.407E+02	2.360E+02	2.293E+01	0.161
SR-82		698.33		-1.241E+01	4.307E+01	6.980E+01	6.201E+00	-0.178
		776.49	*	-5.862E-01	4.313E-01	6.077E-01	5.734E-02	-0.965
		1395.20		-7.779E+00	1.064E+01	1.502E+01	1.400E+00	-0.518
RB-83		520.41	*	3.283E-02	7.735E-02	1.284E-01	1.267E-02	0.256
		529.64		-7.004E-02	1.188E-01	1.796E-01	1.764E-02	-0.390
		552.65		-2.502E-02	2.249E-01	3.762E-01	3.642E-02	-0.067
RB-84		881.50	*	1.429E-02	7.864E-02	1.300E-01	1.316E-02	0.110
KR-85		513.99	*	-5.022E+01	1.220E+01	1.253E+01	1.241E+00	-4.006
SR-85		513.99	*	-2.572E-01	6.247E-02	6.419E-02	6.354E-03	-4.006
RB-86		1076.63	*	5.186E-01	9.106E-01	1.599E+00	1.449E-01	0.324
Y-88		898.02		6.923E-03	5.047E-02	8.288E-02	8.500E-03	0.084
		1836.01	*	2.617E-03	4.128E-02	6.764E-02	5.517E-03	0.039
ZR-88		392.90	*	-2.150E-02	3.612E-02	5.671E-02	5.675E-03	-0.379
Y-91		1204.90	*	-1.348E-01	2.314E+01	3.823E+01	3.175E+00	-0.004
NB-94		702.63	*	1.427E-02	4.071E-02	6.911E-02	6.162E-03	0.207
		871.10		5.195E-03	3.847E-02	6.339E-02	6.374E-03	0.082
NB-95		765.79	*	4.345E-02	5.200E-02	8.901E-02	8.334E-03	0.488
NB-95M		235.69	*	8.984E-02	1.391E-01	2.166E-01	2.740E-02	0.415
ZR-95		724.18		9.348E-02	1.278E-01	1.969E-01	1.926E-02	0.475
		756.15	*	4.195E-02	8.608E-02	1.471E-01	1.487E-02	0.285
NB-97		657.90	*	-1.065E-01	8.608E-02	Half-Life too short		
		1024.50		-8.023E+00	8.608E-02	Half-Life too short		
ZR-97		254.15		-1.186E-01	8.608E-02	Half-Life too short		
		355.39		3.585E+00	8.608E-02	Half-Life too short		
		507.63	*	-7.335E+00	8.608E-02	Half-Life too short		
		602.52		-3.060E+00	8.608E-02	Half-Life too short		
		1021.30		6.254E+00	8.608E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1147.95		-7.220E-02	8.608E-02	Half-Life too short		
		1362.66		-4.298E+00	8.608E-02	Half-Life too short		
		1750.46		-2.293E-01	8.608E-02	Half-Life too short		
MO-99		140.51		-1.282E+01	2.818E+01	4.471E+01	1.243E+01	-0.287
		181.06		1.101E+01	1.991E+01	2.941E+01	5.671E+00	0.374
		366.43		-5.502E+01	9.400E+01	1.484E+02	1.601E+01	-0.371
		739.58	*	2.658E+00	1.242E+01	2.086E+01	3.235E+00	0.127
		778.00		-1.048E+01	3.726E+01	5.951E+01	5.622E+00	-0.176
TC-99M		140.51	*	-1.423E+10	3.726E+01	Half-Life too short		
RH-101		127.23		-5.756E-03	3.363E-02	5.481E-02	4.651E-03	-0.105
		198.01	*	-2.182E-02	3.823E-02	5.813E-02	6.358E-03	-0.375
		325.23		-2.714E-01	2.550E-01	3.938E-01	4.634E-02	-0.689
RH-102		418.52		-3.182E-02	3.373E-01	5.464E-01	5.497E-02	-0.058
		475.06	*	8.185E-03	3.261E-02	5.370E-02	5.387E-03	0.152
		631.29		1.716E-02	6.026E-02	1.029E-01	9.237E-03	0.167
		697.49		6.482E-03	9.440E-02	1.571E-01	1.395E-02	0.041
		766.84		1.559E-01	1.359E-01	2.367E-01	2.218E-02	0.659
		1046.59		-1.146E-01	1.403E-01	2.118E-01	1.975E-02	-0.541
		1112.84		1.044E-03	2.633E-01	3.933E-01	3.428E-02	0.003
RU-103		497.08	*	9.029E-03	4.555E-02	7.447E-02	1.118E-02	0.121
	+	610.33		1.266E+01	2.879E+00	3.165E+00	5.378E-01	3.999
RH-106		511.85		-3.028E-02	2.589E-01	4.639E-01	4.596E-02	-0.065
		621.84	*	6.447E-02	3.655E-01	6.190E-01	8.455E-02	0.104
		1050.47		-4.124E-01	2.590E+00	4.266E+00	3.963E-01	-0.097
RU-106		511.85		-3.028E-02	2.589E-01	4.639E-01	4.596E-02	-0.065
		621.84	*	6.447E-02	3.655E-01	6.190E-01	5.621E-02	0.104
		1050.47		-4.124E-01	2.590E+00	4.266E+00	3.963E-01	-0.097
AG-108M		433.93	*	-1.172E-02	3.464E-02	5.475E-02	5.676E-03	-0.214
		614.37		-2.265E-02	4.820E-02	6.628E-02	6.282E-03	-0.342
		722.95		-3.096E-02	5.672E-02	7.584E-02	7.117E-03	-0.408
AG-110M		657.75	*	-4.744E-02	5.004E-02	6.442E-02	5.747E-03	-0.736
		677.61		1.481E-01	3.205E-01	5.533E-01	4.965E-02	0.268
		706.67		-1.932E-01	2.494E-01	3.857E-01	3.539E-02	-0.501
		763.93		-1.835E-01	1.994E-01	3.012E-01	2.884E-02	-0.609
		884.67		-2.561E-02	5.947E-02	9.223E-02	9.569E-03	-0.278
		937.48		-1.387E-01	1.360E-01	1.950E-01	2.011E-02	-0.711
		1384.27		-1.324E-02	1.765E-01	2.531E-01	2.417E-02	-0.052
IN-111		171.28		-3.175E-01	1.090E+00	1.732E+00	1.796E-01	-0.183
		245.39	*	1.916E-01	1.200E+00	1.815E+00	2.156E-01	0.106
IN-113M		391.69	*	1.232E-02	5.108E-02	8.504E-02	8.702E-03	0.145
SN-113		391.69	*	1.232E-02	5.108E-02	8.504E-02	8.702E-03	0.145
IN-114M		190.27	*	3.650E-02	2.253E-01	3.248E-01	3.498E-02	0.112
CD-115		260.90		3.057E+00	1.342E+02	2.266E+02	2.750E+01	0.013
		492.35		8.089E+00	4.155E+01	6.791E+01	6.780E+00	0.119
		527.90	*	-7.748E+00	1.176E+01	1.765E+01	1.735E+00	-0.439
SN-117M		156.02		-1.142E+00	2.586E+00	4.109E+00	3.993E-01	-0.278
		158.56	*	4.818E-02	5.790E-02	9.732E-02	9.587E-03	0.495
SB-122		563.90	*	5.969E-02	2.214E+00	3.735E+00	3.587E-01	0.016
		692.80		7.079E+00	5.014E+01	8.397E+01	7.427E+00	0.084

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-123		159.00	*	1.981E+00	5.014E+01	Half-Life too short		
		528.96		-2.782E+02	5.014E+01	Half-Life too short		
TE-123M		159.00	*	1.120E-02	3.003E-02	4.953E-02	4.914E-03	0.226
I-124		602.71	*	1.161E-01	8.422E-01	1.247E+00	1.157E-01	0.093
		722.78		-3.348E+00	5.808E+00	7.734E+00	7.007E-01	-0.433
		1325.50		3.344E+01	4.153E+01	7.410E+01	6.863E+00	0.451
	+	1376.25		7.542E+01	3.450E+01	7.059E+01	6.583E+00	1.068
		1509.49		2.266E+01	1.815E+01	3.435E+01	3.166E+00	0.660
		1691.02		-3.361E+00	4.365E+00	6.181E+00	5.414E-01	-0.544
SB-124		602.71		6.861E-03	4.977E-02	7.371E-02	6.837E-03	0.093
		645.85		-3.722E-01	5.657E-01	8.890E-01	8.284E-02	-0.419
		709.31		1.388E+00	3.210E+00	5.489E+00	4.920E-01	0.253
		713.82		-9.899E-04	1.935E+00	3.198E+00	3.938E-01	0.000
		722.78		-2.868E-01	4.976E-01	6.625E-01	6.120E-02	-0.433
	+	968.20		1.293E+01	4.856E+00	7.946E+00	7.846E-01	1.627
		1045.16		-9.178E-01	2.800E+00	4.535E+00	4.234E-01	-0.202
		1325.50		3.060E+00	3.800E+00	6.779E+00	6.278E-01	0.451
		1368.21		1.039E+00	1.833E+00	3.236E+00	4.510E-01	0.321
		1436.60		-1.018E+00	3.705E+00	5.726E+00	5.325E-01	-0.178
		1691.02	*	-6.790E-02	8.821E-02	1.249E-01	1.136E-02	-0.544
SB-125		427.89	*	-9.635E-02	1.078E-01	1.631E-01	1.665E-02	-0.591
	+	463.38		6.896E-01	5.587E-01	6.334E-01	6.739E-02	1.089
		600.56		-5.022E-02	2.031E-01	3.249E-01	3.213E-02	-0.155
		635.90		-1.241E-01	3.072E-01	4.953E-01	4.756E-02	-0.251
TE-125M		109.28	*	4.576E+00	1.013E+01	1.681E+01	1.724E+00	0.272
I-126		388.63		7.048E-02	2.376E-01	3.969E-01	4.011E-02	0.178
		666.33	*	3.602E-01	2.206E-01	3.740E-01	3.235E-02	0.963
		753.82		-5.258E-01	1.789E+00	2.870E+00	2.663E-01	-0.183
SB-126		223.80		-1.158E+00	4.815E+00	7.527E+00	8.637E-01	-0.154
		278.60		-2.027E-01	2.620E+00	4.381E+00	5.429E-01	-0.046
		296.50		7.766E+00	2.724E+00	3.613E+00	4.415E-01	2.150
		414.70		3.241E-03	8.320E-02	1.362E-01	1.369E-02	0.024
		415.30		2.065E+00	6.998E+00	1.165E+01	1.172E+00	0.177
		555.20		-9.168E-01	4.473E+00	7.426E+00	7.177E-01	-0.123
		573.80		-9.188E-02	1.071E+00	1.789E+00	1.704E-01	-0.051
		593.00		6.018E-02	9.890E-01	1.667E+00	1.561E-01	0.036
		656.30		8.292E-03	4.455E+00	6.442E+00	5.594E-01	0.001
		666.33		1.505E-01	9.216E-02	1.562E-01	1.351E-02	0.963
		675.00		-1.610E+00	2.084E+00	3.207E+00	2.794E-01	-0.502
		695.00		-1.698E-02	9.250E-02	1.510E-01	1.338E-02	-0.112
		697.00		-1.826E-02	3.311E-01	5.461E-01	4.847E-02	-0.033
		720.50	*	6.006E-02	1.841E-01	2.855E-01	2.582E-02	0.210
		856.80		5.347E-01	5.999E-01	9.421E-01	9.388E-02	0.567
		989.30		4.667E-01	1.380E+00	2.302E+00	2.243E-01	0.203
		1034.80		2.156E+00	1.012E+01	1.729E+01	1.628E+00	0.125
		1213.00		-2.082E+00	5.632E+00	8.994E+00	7.526E-01	-0.232
SB-127		61.10		5.332E+01	7.079E+01	1.126E+02	1.173E+01	0.474
		252.40		5.800E-01	4.514E+00	7.666E+00	3.284E+00	0.076
		290.80		-1.319E+01	2.637E+01	3.728E+01	5.280E+00	-0.354

---- Non-Identified Nuclides ----

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		411.60		-1.527E+01	1.391E+01	2.055E+01	3.398E+00	-0.743
		444.90		8.028E+00	1.041E+01	1.782E+01	2.415E+00	0.450
		473.00		-2.268E-01	1.877E+00	3.002E+00	4.151E-01	-0.076
		543.00		-2.775E+00	1.842E+01	2.901E+01	4.371E+00	-0.096
		603.60		5.974E+00	1.426E+01	2.170E+01	2.807E+00	0.275
		685.20	*	-2.916E-01	1.525E+00	2.487E+00	2.856E-01	-0.117
		698.50		-9.844E-01	1.870E+01	3.084E+01	4.917E+00	-0.032
		722.20		-2.867E+01	4.077E+01	5.337E+01	6.122E+00	-0.537
		783.80		1.803E+00	4.309E+00	7.299E+00	9.492E-01	0.247
XE-127		57.60		9.715E-01	8.034E+00	1.320E+01	1.015E+00	0.074
		145.22		-5.082E-01	7.945E-01	1.257E+00	1.154E-01	-0.404
		172.10		-1.078E-01	1.322E-01	2.035E-01	2.113E-02	-0.530
		202.84	*	-6.992E-02	5.647E-02	8.358E-02	9.229E-03	-0.837
		374.96		3.780E-02	2.222E-01	3.694E-01	3.893E-02	0.102
I-131		80.18		3.756E+00	4.923E+00	7.716E+00	7.151E-01	0.487
		284.30		-4.536E-01	1.629E+00	2.688E+00	3.406E-01	-0.169
		364.48	*	9.445E-02	1.304E-01	2.241E-01	2.514E-02	0.421
		636.97		6.396E-01	1.703E+00	2.925E+00	2.744E-01	0.219
		722.89		-5.285E+00	9.456E+00	1.262E+01	1.150E+00	-0.419
TE-132		49.72		-8.887E-01	3.141E+01	4.863E+01	5.327E+00	-0.018
		111.76		-1.969E+01	3.248E+01	5.230E+01	5.600E+00	-0.376
		116.30		-1.835E+01	2.977E+01	4.775E+01	5.084E+00	-0.384
		228.16	*	2.741E-01	8.101E-01	1.303E+00	2.278E-01	0.210
BA-133		53.15		3.683E+00	5.269E+00	9.250E+00	7.697E-01	0.398
		79.62		9.952E-01	1.416E+00	2.206E+00	3.427E-01	0.451
		81.00		-9.589E-02	1.161E-01	1.669E-01	2.712E-02	-0.575
		276.40		2.537E-01	4.017E-01	6.926E-01	1.174E-01	0.366
		302.84		1.209E-02	1.659E-01	2.452E-01	3.874E-02	0.049
		356.01	*	3.316E-02	5.054E-02	7.746E-02	1.156E-02	0.428
		383.85		-5.429E-02	3.485E-01	5.660E-01	7.798E-02	-0.096
I-133		510.53		6.010E-01	3.485E-01	Half-Life too short		
		529.87	*	-1.672E-03	3.485E-01	Half-Life too short		
		706.58		-3.342E-01	3.485E-01	Half-Life too short		
		856.28		-1.409E-03	3.485E-01	Half-Life too short		
		875.33		-2.418E-02	3.485E-01	Half-Life too short		
		1236.41		1.266E+00	3.485E-01	Half-Life too short		
		1298.22		-1.359E-01	3.485E-01	Half-Life too short		
CS-134		475.35		-5.540E-01	2.224E+00	3.520E+00	3.531E-01	-0.157
		563.23		1.552E-01	3.949E-01	6.836E-01	6.617E-02	0.227
		569.32		2.173E-01	2.071E-01	3.740E-01	3.616E-02	0.581
		604.70		1.663E-02	4.306E-02	6.530E-02	6.056E-03	0.255
	+	795.84	*	8.405E-02	6.630E-02	1.014E-01	9.758E-03	0.829
		801.93		-1.071E-01	5.000E-01	7.766E-01	7.495E-02	-0.138
		1038.57		3.447E-01	4.546E+00	7.667E+00	7.197E-01	0.045
		1167.94		-1.378E+00	2.905E+00	4.593E+00	3.727E-01	-0.300
		1365.15		-2.922E-01	1.249E+00	1.965E+00	1.904E-01	-0.149
CS-135		268.24	*	1.628E-01	1.846E-01	2.899E-01	3.835E-02	0.562
I-135		288.45		9.197E+09	1.846E-01	Half-Life too short		
		417.63		1.852E+10	1.846E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		546.56		-5.764E+08	1.846E-01	Half-Life too short		
		836.80		2.998E+09	1.846E-01	Half-Life too short		
		1038.76		1.822E+09	1.846E-01	Half-Life too short		
		1124.00		-1.847E+10	1.846E-01	Half-Life too short		
		1131.51		3.014E+09	1.846E-01	Half-Life too short		
		1260.41	*	-3.156E+09	1.846E-01	Half-Life too short		
		1457.56		7.088E+11	1.846E-01	Half-Life too short		
		1678.03		-4.548E+09	1.846E-01	Half-Life too short		
		1706.46		9.636E+09	1.846E-01	Half-Life too short		
		1791.20		-5.330E+09	1.846E-01	Half-Life too short		
CS-136		66.91		-1.562E-01	9.462E-01	1.433E+00	2.178E-01	-0.109
	+	86.29		3.221E+00	1.633E+00	2.212E+00	3.032E-01	1.456
		153.22		8.745E-01	7.518E-01	1.273E+00	1.337E-01	0.687
		163.89		1.526E+00	1.222E+00	2.016E+00	2.225E-01	0.757
		176.55		1.411E-01	4.076E-01	6.669E-01	7.263E-02	0.212
		273.65		1.117E-01	5.411E-01	8.136E-01	1.036E-01	0.137
		340.57		4.337E-02	1.538E-01	2.289E-01	2.664E-02	0.189
		818.51		1.692E-02	8.168E-02	1.362E-01	1.324E-02	0.124
		1048.07	*	-4.369E-02	1.251E-01	1.980E-01	1.911E-02	-0.221
		1235.34		9.849E-01	7.435E-01	1.334E+00	1.573E-01	0.738
CE-139		165.85	*	-1.343E-02	3.404E-02	5.396E-02	5.535E-03	-0.249
BA-140		162.64		-3.054E-01	8.451E-01	1.303E+00	1.369E-01	-0.234
		304.84		-4.949E-01	1.634E+00	2.333E+00	6.834E-01	-0.212
		423.70		3.326E+00	2.488E+00	4.004E+00	1.315E+00	0.831
		537.32	*	9.855E-02	2.852E-01	4.669E-01	1.562E-01	0.211
LA-140		328.77		3.631E-01	3.369E-01	5.875E-01	7.084E-02	0.618
		432.53		2.297E-01	2.210E+00	3.624E+00	3.781E-01	0.063
		487.03		8.678E-02	1.648E-01	2.757E-01	2.885E-02	0.315
		751.79		-1.054E+00	2.093E+00	3.295E+00	3.337E-01	-0.320
		815.85		-1.443E-01	3.706E-01	5.821E-01	6.166E-02	-0.248
		867.82		2.233E-01	1.647E+00	2.642E+00	2.756E-01	0.084
		919.63		-3.937E-01	2.952E+00	4.406E+00	5.243E-01	-0.089
		925.24		-9.944E-02	1.230E+00	1.970E+00	2.082E-01	-0.050
		1596.49	*	-8.489E-02	9.667E-02	1.386E-01	1.253E-02	-0.613
CE-141		145.44	*	-7.347E-02	7.117E-02	1.101E-01	1.029E-02	-0.667
CE-143		57.37		5.390E-04	7.117E-02	Half-Life too short		
		231.56		-1.121E-03	7.117E-02	Half-Life too short		
		293.26	*	6.129E-04	7.117E-02	Half-Life too short		
	+	350.59		2.657E-02	7.117E-02	Half-Life too short		
		490.36		-1.790E-03	7.117E-02	Half-Life too short		
		664.57		9.658E-04	7.117E-02	Half-Life too short		
		721.93		-1.257E-03	7.117E-02	Half-Life too short		
CE-144		80.11		1.819E+00	2.291E+00	3.595E+00	3.311E-01	0.506
		133.54	*	2.440E-02	2.163E-01	3.561E-01	5.558E-02	0.069
PM-144		476.78		-1.658E-02	7.894E-02	1.253E-01	1.344E-02	-0.132
		618.01		1.141E-02	3.675E-02	6.285E-02	5.874E-03	0.182
		696.49	*	-1.494E-03	4.285E-02	7.079E-02	6.282E-03	-0.021
		778.57		6.105E-01	2.547E+00	4.270E+00	4.036E-01	0.143
PR-144		696.49	*	-1.012E-01	2.904E+00	4.797E+00	4.255E-01	-0.021

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		1489.15		4.539E+00	1.042E+01	1.840E+01	1.702E+00	0.247
PM-146		453.90	*	-1.731E-02	5.255E-02	8.165E-02	9.731E-03	-0.212
		633.02		-1.461E-02	1.534E+00	2.558E+00	9.578E-01	-0.006
		735.90		2.779E-02	1.664E-01	2.781E-01	8.000E-02	0.100
		747.13		-4.686E-02	1.065E-01	1.682E-01	2.426E-02	-0.279
ND-147	+	91.11		2.356E+00	5.778E-01	6.492E-01	6.686E-02	3.628
		319.41		-1.590E+00	3.828E+00	6.207E+00	7.371E-01	-0.256
		439.89		-1.346E+00	6.413E+00	1.025E+01	1.032E+00	-0.131
		531.02	*	2.195E-01	6.407E-01	1.054E+00	1.651E-01	0.208
PM-149		285.90	*	5.258E+00	9.769E+01	1.642E+02	2.935E+01	0.032
EU-152		121.78		1.115E-02	8.068E-02	1.336E-01	1.296E-02	0.083
		244.69		-3.738E-01	3.907E-01	5.401E-01	6.410E-02	-0.692
		344.27	*	3.076E-02	1.193E-01	1.864E-01	2.191E-02	0.165
		443.98		8.174E-01	1.088E+00	1.860E+00	1.873E-01	0.440
		778.89		1.735E-01	2.912E-01	5.032E-01	4.756E-02	0.345
		867.32		3.710E-01	1.016E+00	1.620E+00	1.625E-01	0.229
	+	964.01		5.972E-01	3.969E-01	6.428E-01	6.363E-02	0.929
		1085.78		5.816E-02	4.362E-01	7.373E-01	6.622E-02	0.079
		1112.02		1.272E-01	3.465E-01	5.738E-01	5.007E-02	0.222
		1407.95		1.912E-01	2.363E-01	4.212E-01	3.925E-02	0.454
GD-153		69.67		6.349E-01	1.970E+00	3.048E+00	2.554E-01	0.208
		83.37		3.867E-01	1.765E+01	2.622E+01	2.499E+00	0.015
		97.43	*	-1.002E-01	9.665E-02	1.343E-01	1.221E-02	-0.746
		103.18		-7.577E-02	1.114E-01	1.795E-01	1.571E-02	-0.422
EU-154		123.07		7.678E-03	5.534E-02	9.162E-02	1.024E-02	0.084
		247.94		1.873E-01	3.965E-01	6.847E-01	9.672E-02	0.274
		591.81		1.994E-01	6.327E-01	1.088E+00	1.332E-01	0.183
		723.30		-5.989E-02	2.317E-01	3.214E-01	3.192E-02	-0.186
		756.87		1.116E+00	9.240E-01	1.652E+00	2.061E-01	0.676
		873.19		-1.438E-01	3.396E-01	5.263E-01	7.001E-02	-0.273
		996.32		-7.301E-01	5.156E-01	6.822E-01	1.249E-01	-1.070
		1004.76		-2.369E-01	2.721E-01	4.200E-01	5.214E-02	-0.564
		1274.45	*	-1.028E-01	1.522E-01	2.337E-01	2.685E-02	-0.440
EU-155		48.70		-3.228E+00	4.358E+00	6.479E+00	5.736E-01	-0.498
		60.01		-9.200E-01	6.366E+00	9.703E+00	7.321E-01	-0.095
	+	86.54		2.989E-01	1.489E-01	2.055E-01	2.046E-02	1.454
		105.31	*	5.153E-02	1.128E-01	1.907E-01	1.672E-02	0.270
TB-160	+	86.79		7.977E-01	3.971E-01	5.487E-01	5.434E-02	1.454
		197.04		-3.125E-01	6.426E-01	9.819E-01	1.072E-01	-0.318
		215.65		-7.918E-01	8.851E-01	1.331E+00	1.505E-01	-0.595
	+	298.57		3.740E-01	1.895E-01	2.391E-01	2.916E-02	1.564
		879.36	*	-2.448E-02	1.598E-01	2.553E-01	2.580E-02	-0.096
	+	962.29		1.102E+00	7.321E-01	1.160E+00	1.150E-01	0.949
		966.15		1.157E+00	3.168E-01	5.972E-01	5.904E-02	1.937
		1177.93		8.058E-02	3.915E-01	6.616E-01	5.353E-02	0.122
		1271.85		-2.802E-01	7.941E-01	1.253E+00	1.107E-01	-0.224
HO-166M		80.57		-6.237E-02	3.063E-01	4.583E-01	4.241E-02	-0.136
	+	184.41		1.885E-01	7.270E-02	8.874E-02	9.446E-03	2.124
		280.46		3.496E-03	8.907E-02	1.498E-01	1.856E-02	0.023

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		410.95		8.807E-02	2.673E-01	4.466E-01	4.488E-02	0.197
		711.68	*	2.796E-02	7.039E-02	1.200E-01	1.078E-02	0.233
		752.31		-2.025E-01	3.297E-01	5.130E-01	4.755E-02	-0.395
		810.29		5.774E-03	6.946E-02	1.145E-01	1.106E-02	0.050
TM-171		51.35		-2.858E+01	4.590E+01	7.668E+01	6.582E+00	-0.373
		52.39		1.545E+01	2.344E+01	4.113E+01	3.469E+00	0.376
		59.40		-6.252E+00	3.440E+01	5.234E+01	3.918E+00	-0.119
		66.72	*	5.428E+00	3.401E+01	5.238E+01	4.279E+00	0.104
LU-176	+	88.36		5.887E-01	2.931E-01	3.795E-01	3.793E-02	1.551
		201.83		-1.387E-02	3.392E-02	5.297E-02	5.838E-03	-0.262
		306.84	*	1.876E-02	2.767E-02	4.777E-02	5.771E-03	0.393
		401.10		3.717E+00	7.697E+00	1.299E+01	1.302E+00	0.286
LU-177		112.95		7.968E-01	1.780E+00	2.994E+00	2.529E-01	0.266
	+	208.36	*	1.930E+00	1.328E+00	1.997E+00	2.229E-01	0.967
LU-177M		52.97		1.656E+00	2.394E+00	4.202E+00	3.508E-01	0.394
		54.07		6.443E-01	1.227E+00	2.141E+00	1.752E-01	0.301
		61.30		1.919E+00	1.879E+00	3.025E+00	2.330E-01	0.634
		121.62		1.616E-01	4.104E-01	6.871E-01	5.737E-02	0.235
		147.16		-4.812E-01	7.185E-01	1.132E+00	1.050E-01	-0.425
		171.86		-3.883E-01	5.350E-01	8.288E-01	8.602E-02	-0.468
		218.09		1.088E-01	9.999E-01	1.596E+00	1.813E-01	0.068
	+	268.79		1.203E+00	1.125E+00	1.537E+00	1.884E-01	0.782
		319.02		-1.832E-01	2.962E-01	4.734E-01	5.624E-02	-0.387
		367.43		1.101E-01	9.759E-01	1.620E+00	1.742E-01	0.068
		413.65	*	-9.920E-02	1.948E-01	3.056E-01	3.072E-02	-0.325
HF-181		56.28		-1.532E-01	1.251E+00	2.127E+00	1.673E-01	-0.072
		57.53		8.607E-02	6.774E-01	1.113E+00	8.574E-02	0.077
		65.20		-2.780E-01	1.137E+00	1.717E+00	1.383E-01	-0.162
		133.02		5.055E-03	6.926E-02	1.138E-01	9.881E-03	0.044
		136.25		-1.450E-01	4.774E-01	7.696E-01	6.773E-02	-0.188
		345.85		-8.030E-02	2.555E-01	3.611E-01	4.089E-02	-0.222
		482.03	*	4.613E-03	4.992E-02	8.109E-02	8.120E-03	0.057
W-181		56.28		-6.084E-02	4.900E-01	8.335E-01	6.556E-02	-0.073
		57.53		3.380E-02	2.657E-01	4.366E-01	3.363E-02	0.077
		65.20	*	-1.081E-01	4.424E-01	6.681E-01	5.383E-02	-0.162
TA-182		67.75		-3.766E-02	1.265E-01	2.025E-01	1.669E-02	-0.186
		100.10		1.366E-01	1.953E-01	3.283E-01	2.926E-02	0.416
		152.43		2.758E-01	3.874E-01	6.475E-01	6.172E-02	0.426
		222.10		5.616E-02	4.167E-01	6.652E-01	7.611E-02	0.084
		1001.68		4.008E+00	2.688E+00	4.835E+00	4.671E-01	0.829
	+	1121.28		4.557E-01	2.692E-01	3.909E-01	3.374E-02	1.166
		1189.05		4.011E-01	3.563E-01	6.464E-01	5.287E-02	0.621
		1221.42	*	-1.141E-01	2.266E-01	3.562E-01	3.005E-02	-0.320
		1230.97		-3.941E-01	5.725E-01	8.851E-01	7.534E-02	-0.445
RE-183		57.98		7.828E-02	2.732E-01	4.268E-01	3.264E-02	0.183
		59.32		-2.491E-02	1.416E-01	2.155E-01	1.615E-02	-0.116
		67.20		-1.163E-01	2.457E-01	3.661E-01	3.003E-02	-0.318
		162.32	*	-7.599E-02	1.249E-01	1.900E-01	1.911E-02	-0.400
	+	208.81		1.753E+00	1.205E+00	1.814E+00	2.026E-01	0.966

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		291.72		-1.264E+00	1.179E+00	1.576E+00	1.935E-01	-0.802
RE-184		57.98		2.886E-01	1.007E+00	1.574E+00	1.203E-01	0.183
		59.32		-9.176E-02	5.217E-01	7.941E-01	5.950E-02	-0.116
		67.20		-4.288E-01	9.057E-01	1.349E+00	1.107E-01	-0.318
		161.27		-2.386E-01	3.792E-01	5.935E-01	5.934E-02	-0.402
		216.55		-1.882E-02	3.078E-01	4.871E-01	5.519E-02	-0.039
		252.85	*	7.767E-02	2.467E-01	4.233E-01	5.082E-02	0.183
		318.01		-1.235E-01	5.031E-01	8.245E-01	9.812E-02	-0.150
		792.07		1.283E+00	1.464E+00	2.268E+00	2.164E-01	0.566
		903.28		-4.454E-01	1.321E+00	1.852E+00	1.889E-01	-0.240
		920.93		-2.601E-01	4.749E-01	7.164E-01	7.252E-02	-0.363
OS-185		59.72		-1.184E-01	3.823E-01	5.775E-01	4.334E-02	-0.205
		61.14		1.659E-01	2.052E-01	3.276E-01	2.518E-02	0.506
		69.30		8.380E-02	3.337E-01	5.460E-01	4.560E-02	0.153
		592.07		5.418E-01	2.701E+00	4.603E+00	4.314E-01	0.118
		646.12	*	-5.300E-02	5.126E-02	7.530E-02	6.632E-03	-0.704
		717.42		1.697E-01	1.081E+00	1.808E+00	1.632E-01	0.094
		874.81		-3.965E-02	6.335E-01	1.022E+00	1.030E-01	-0.039
		880.27		6.862E-01	8.732E-01	1.526E+00	1.543E-01	0.450
RE-188		155.03	*	5.508E-02	1.946E-01	3.197E-01	3.090E-02	0.172
		477.96		6.652E-01	3.585E+00	5.868E+00	5.883E-01	0.113
		633.10		9.934E-02	3.108E+00	5.200E+00	4.658E-01	0.019
W-188	+	63.58		2.788E+02	1.179E+02	1.300E+02	1.031E+01	2.144
		227.08		2.520E+00	1.532E+01	2.446E+01	2.822E+00	0.103
		290.67	*	-1.792E+00	9.111E+00	1.323E+01	1.626E+00	-0.135
IR-192	+	295.96		8.144E-01	2.113E-01	3.060E-01	3.755E-02	2.661
		308.46		3.445E-02	1.074E-01	1.823E-01	2.203E-02	0.189
		316.51	*	-7.956E-04	3.900E-02	6.312E-02	7.537E-03	-0.013
		468.07		4.570E-02	8.448E-02	1.261E-01	1.335E-02	0.362
		604.41		1.394E-03	5.923E-01	8.648E-01	1.163E-01	0.002
		612.46		6.586E-02	8.421E-01	1.242E+00	1.291E-01	0.053
AU-195		65.12		-4.376E-02	2.055E-01	3.108E-01	2.502E-02	-0.141
		66.83		2.034E-02	1.124E-01	1.732E-01	1.416E-02	0.117
	+	75.70		1.294E+00	3.886E-01	4.890E-01	4.316E-02	2.645
		98.88	*	4.773E-01	2.475E-01	4.297E-01	3.863E-02	1.111
		129.76		1.644E+00	3.078E+00	5.160E+00	4.421E-01	0.319
TL-200		367.94	*	4.787E-06	3.078E+00	Half-Life too short		
		579.30		-2.842E-04	3.078E+00	Half-Life too short		
		828.27		-1.993E-03	3.078E+00	Half-Life too short		
		1205.75		-2.904E-04	3.078E+00	Half-Life too short		
TL-201		68.90		2.241E+00	5.287E+00	8.712E+00	7.251E-01	0.257
		70.82		7.753E-02	3.097E+00	4.721E+00	3.993E-01	0.016
		80.30		-4.196E-02	5.455E+00	8.245E+00	7.608E-01	-0.005
		135.34		-2.546E+00	2.561E+01	4.172E+01	3.657E+00	-0.061
		167.43	*	-5.951E+00	7.869E+00	1.222E+01	1.257E+00	-0.487
TL-202		68.90		2.053E-01	4.843E-01	7.980E-01	6.642E-02	0.257
		70.82		7.083E-03	2.829E-01	4.313E-01	3.648E-02	0.016
		80.30		-3.834E-03	4.985E-01	7.534E-01	6.953E-02	-0.005
		439.56	*	-2.596E-02	7.734E-02	1.223E-01	1.232E-02	-0.212

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HG-203		70.83		3.313E-02	1.231E+00	1.878E+00	2.535E-01	0.018
		72.87		1.003E+00	7.457E-01	1.184E+00	1.562E-01	0.847
		82.60		-6.093E-01	1.245E+00	1.912E+00	2.731E-01	-0.319
		279.20	*	-2.265E-03	4.338E-02	7.261E-02	9.129E-03	-0.031
BI-207		72.80		2.449E-01	2.152E-01	3.426E-01	2.947E-02	0.715
	+	74.97		7.179E-01	2.156E-01	2.469E-01	2.165E-02	2.908
		84.90		2.804E-01	2.211E-01	3.450E-01	3.344E-02	0.813
		569.67		2.753E-02	3.271E-02	5.830E-02	5.572E-03	0.472
		1063.62	*	-2.115E-02	6.294E-02	1.019E-01	9.351E-03	-0.208
		1770.23		3.894E-02	4.429E-01	6.487E-01	5.482E-02	0.060
TL-207		81.07		-1.531E-01	2.513E-01	3.678E-01	3.421E-02	-0.416
		83.78		6.824E-02	1.488E-01	2.254E-01	2.158E-02	0.303
		94.90		3.813E-01	2.502E-01	4.013E-01	3.726E-02	0.950
		122.32		5.960E-01	1.883E+00	3.142E+00	2.829E-01	0.190
		144.24		1.612E+00	8.167E-01	1.360E+00	1.374E-01	1.186
		154.21		1.604E-01	4.622E-01	7.612E-01	7.916E-02	0.211
	+	269.46		2.817E-01	2.636E-01	3.694E-01	4.578E-02	0.763
		323.87	*	-6.003E-01	7.885E-01	1.239E+00	2.410E-01	-0.484
	+	338.28		7.621E+00	2.066E+00	2.776E+00	4.018E-01	2.745
		445.03		1.784E+00	2.461E+00	4.204E+00	5.534E-01	0.424
PO-209		260.50		1.927E+00	1.026E+01	1.746E+01	2.118E+00	0.110
		262.80		5.609E+00	2.907E+01	4.947E+01	6.018E+00	0.113
		896.60	*	6.621E+00	8.930E+00	1.546E+01	1.579E+00	0.428
BI-210		46.50	*	1.004E+01	6.672E+00	1.087E+01	1.042E+00	0.924
PB-210		46.50	*	1.004E+01	6.672E+00	1.087E+01	1.042E+00	0.924
PO-210		46.50	*	1.004E+01	6.660E+00	1.087E+01	9.491E-01	0.924
PB-211		404.84	*	-3.840E-01	1.119E+00	1.745E+00	1.097E+00	-0.220
		427.08		-1.592E+00	2.647E+00	3.809E+00	2.375E+00	-0.418
		831.96		2.041E-01	1.370E+00	2.257E+00	1.418E+00	0.090
BI-212	+	727.18	*	8.763E-01	5.106E-01	7.229E-01	7.530E-02	1.212
		785.46		1.992E+00	2.151E+00	3.776E+00	3.586E-01	0.527
		1620.62		1.020E+00	1.393E+00	2.583E+00	2.320E-01	0.395
PO-215		81.07		-1.531E-01	2.513E-01	3.678E-01	3.421E-02	-0.416
		83.78		6.824E-02	1.488E-01	2.254E-01	2.158E-02	0.303
		94.90		3.813E-01	2.502E-01	4.013E-01	3.726E-02	0.950
		122.32		5.960E-01	1.883E+00	3.142E+00	2.829E-01	0.190
		144.24		1.612E+00	8.167E-01	1.360E+00	1.374E-01	1.186
		154.21		1.604E-01	4.622E-01	7.612E-01	7.916E-02	0.211
	+	269.46		2.817E-01	2.636E-01	3.694E-01	4.578E-02	0.763
		323.87	*	-6.003E-01	7.885E-01	1.239E+00	2.410E-01	-0.484
	+	338.28		7.621E+00	2.066E+00	2.776E+00	4.018E-01	2.745
		445.03		1.784E+00	2.461E+00	4.204E+00	5.534E-01	0.424
RN-219	+	271.23		3.614E-01	3.388E-01	4.960E-01	6.712E-02	0.729
		401.81	*	2.402E-01	4.805E-01	8.096E-01	1.285E-01	0.297
RN-220		549.76	*	-3.931E+00	3.071E+01	4.845E+01	4.699E+00	-0.081
RA-223		81.07		-1.531E-01	2.513E-01	3.678E-01	3.421E-02	-0.416
		83.78		6.824E-02	1.488E-01	2.254E-01	2.158E-02	0.303
		94.90		3.813E-01	2.502E-01	4.013E-01	3.726E-02	0.950
		122.32		5.960E-01	1.883E+00	3.142E+00	2.829E-01	0.190

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		144.24		1.612E+00	8.167E-01	1.360E+00	1.374E-01	1.186
		154.21		1.604E-01	4.622E-01	7.612E-01	7.916E-02	0.211
	+	269.46		2.817E-01	2.636E-01	3.694E-01	4.578E-02	0.763
		323.87	*	-6.003E-01	7.885E-01	1.239E+00	2.410E-01	-0.484
	+	338.28		7.621E+00	2.066E+00	2.776E+00	4.018E-01	2.745
		445.03		1.784E+00	2.461E+00	4.204E+00	5.534E-01	0.424
AC-227		79.80		1.580E+00	1.812E+00	2.812E+00	6.111E-01	0.562
		236.00		7.404E-01	2.980E-01	4.795E-01	6.994E-02	1.544
		256.20	*	3.518E-02	3.982E-01	6.753E-01	1.183E-01	0.052
		286.10		2.509E-01	1.703E+00	2.877E+00	4.569E-01	0.087
	+	299.80		4.768E+00	2.522E+00	3.039E+00	5.923E-01	1.569
		304.40		-4.693E-01	2.301E+00	3.320E+00	6.743E-01	-0.141
		334.20		-5.486E-01	2.827E+00	4.046E+00	8.456E-01	-0.136
TH-227		79.80		1.580E+00	1.812E+00	2.812E+00	6.188E-01	0.562
	+	94.00		1.822E+01	5.729E+00	4.247E+00	9.379E-01	4.289
		236.00		7.404E-01	2.954E-01	4.795E-01	6.532E-02	1.544
		256.20	*	3.518E-02	3.983E-01	6.753E-01	1.346E-01	0.052
		286.10		2.509E-01	1.722E+00	2.877E+00	2.898E+00	0.087
	+	299.80		4.768E+00	2.522E+00	3.039E+00	5.923E-01	1.569
		304.40		-4.693E-01	2.301E+00	3.320E+00	6.743E-01	-0.141
		334.20		-5.486E-01	2.827E+00	4.046E+00	8.456E-01	-0.136
TH-229		85.43		2.316E-01	2.262E-01	3.495E-01	3.409E-02	0.663
	+	88.47		3.389E-01	1.687E-01	2.154E-01	2.150E-02	1.574
		100.00		2.974E-01	1.991E-01	3.429E-01	3.059E-02	0.867
		193.63	*	-1.383E-02	5.657E-01	9.042E-01	9.805E-02	-0.015
		210.97		4.121E-01	9.131E-01	1.332E+00	1.493E-01	0.310
PA-231		283.67	*	-5.167E-01	1.651E+00	2.716E+00	4.775E-01	-0.190
		301.29		8.433E-01	7.096E-01	1.119E+00	1.673E-01	0.754
TH-231		81.07		-1.531E-01	2.513E-01	3.678E-01	3.421E-02	-0.416
		83.78		6.824E-02	1.488E-01	2.254E-01	2.158E-02	0.303
		94.90		3.813E-01	2.502E-01	4.013E-01	3.726E-02	0.950
		122.32		5.960E-01	1.883E+00	3.142E+00	2.829E-01	0.190
		144.24		1.612E+00	8.167E-01	1.360E+00	1.374E-01	1.186
		154.21		1.604E-01	4.622E-01	7.612E-01	7.916E-02	0.211
	+	269.46		2.817E-01	2.636E-01	3.694E-01	4.578E-02	0.763
		323.87	*	-6.003E-01	7.885E-01	1.239E+00	2.410E-01	-0.484
	+	338.28		7.621E+00	2.066E+00	2.776E+00	4.018E-01	2.745
		445.03		1.784E+00	2.461E+00	4.204E+00	5.534E-01	0.424
U-231		84.21		7.062E+00	6.239E+00	9.694E+00	9.325E-01	0.729
	+	92.29		1.767E+01	4.289E+00	5.540E+00	5.280E-01	3.190
		95.87	*	-1.805E+00	1.223E+00	1.660E+00	1.528E-01	-1.087
		108.00		-1.608E+00	2.238E+00	3.534E+00	3.029E-01	-0.455
PA-233	+	75.28		2.095E+01	6.831E+00	7.376E+00	1.139E+00	2.840
	+	86.59		4.859E+00	2.716E+00	3.342E+00	9.107E-01	1.454
	+	300.12		1.329E+00	6.925E-01	8.398E-01	1.443E-01	1.583
		311.98	*	-5.486E-02	6.970E-02	1.099E-01	1.339E-02	-0.499
		340.50		3.704E-01	7.468E-01	1.123E+00	2.807E-01	0.330
		398.62		-2.702E-01	2.423E+00	3.934E+00	1.067E+00	-0.069
		415.76		7.266E-01	1.883E+00	3.144E+00	6.969E-01	0.231

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	+	63.00		8.094E+00	3.577E+00	3.959E+00	5.977E-01	2.045
		94.67		5.123E-01	1.885E-01	3.042E-01	3.920E-02	1.684
		98.44		1.032E-01	1.197E-01	1.719E-01	9.602E-02	0.600
		99.86		8.042E-01	5.070E-01	8.751E-01	7.814E-02	0.919
		111.00		-2.446E-02	2.011E-01	3.311E-01	3.971E-02	-0.074
		131.20		-6.932E-02	1.144E-01	1.823E-01	1.570E-02	-0.380
		152.70		4.573E-01	3.779E-01	6.321E-01	1.108E-01	0.723
	+	186.00		6.785E+00	3.315E+00	3.321E+00	1.058E+00	2.043
		226.40		-2.361E-01	4.829E-01	7.419E-01	1.132E-01	-0.318
		227.20		1.080E-01	5.192E-01	8.306E-01	9.588E-02	0.130
		248.90		1.291E-01	8.775E-01	1.494E+00	3.569E-01	0.086
	+	293.70		5.132E+00	1.537E+00	1.857E+00	3.597E-01	2.763
		369.80		-6.252E-01	9.290E-01	1.438E+00	3.260E-01	-0.435
		568.70		5.048E-01	1.054E+00	1.836E+00	1.756E-01	0.275
		569.50		3.007E-01	2.866E-01	5.176E-01	4.948E-02	0.581
		574.00		-1.866E-01	1.543E+00	2.569E+00	2.447E-01	-0.073
		699.00		7.746E-02	9.076E-01	1.512E+00	2.903E-01	0.051
		706.10		-7.518E-01	1.281E+00	1.946E+00	8.688E-01	-0.386
		733.00		-1.476E-01	4.951E-01	6.794E-01	1.522E-01	-0.217
		742.81		7.505E-01	1.608E+00	2.624E+00	1.766E+00	0.286
		796.30		1.138E+00	1.208E+00	1.854E+00	5.074E-01	0.614
		805.60		4.600E-01	1.215E+00	2.039E+00	6.312E-01	0.226
		819.60		2.376E-01	1.365E+00	2.265E+00	8.672E-01	0.105
		826.30		-1.819E-01	9.213E-01	1.468E+00	6.603E-01	-0.124
		831.60		6.089E-02	6.957E-01	1.144E+00	3.456E-01	0.053
		876.40		3.536E-02	9.263E-01	1.509E+00	1.554E+00	0.023
		880.51		1.464E-01	3.187E-01	5.410E-01	5.472E-02	0.271
		883.24		-1.766E-01	3.585E-01	5.193E-01	3.501E-01	-0.340
		899.00		1.887E-01	1.036E+00	1.703E+00	7.502E-01	0.111
		925.00		-2.009E-01	1.275E+00	2.024E+00	2.045E-01	-0.099
		926.50		8.931E-02	1.874E-01	3.167E-01	8.177E-02	0.282
		946.00	*	-8.407E-02	3.627E-01	5.705E-01	1.109E-01	-0.147
		949.00		1.469E-01	5.652E-01	9.338E-01	9.322E-02	0.157
		980.50		2.483E-01	8.868E-01	1.467E+00	1.437E-01	0.169
		1394.10		-7.839E-01	1.267E+00	1.662E+00	1.084E+00	-0.472
PA-234M		766.42		1.434E+01	1.583E+01	2.441E+01	1.242E+01	0.587
		1001.03	*	5.275E+00	6.335E+00	1.111E+01	1.209E+00	0.475
U-235		89.95		1.129E+00	1.618E+00	1.985E+00	6.194E-01	0.569
	+	93.35		5.668E+00	2.044E+00	1.666E+00	4.713E-01	3.401
		105.00		1.114E+00	1.143E+00	1.893E+00	5.653E-01	0.588
		143.76	*	3.166E-01	2.571E-01	4.141E-01	7.353E-02	0.765
		163.35		2.827E-01	5.387E-01	8.633E-01	1.709E-01	0.327
	+	185.71		2.513E-01	9.693E-02	1.237E-01	1.320E-02	2.032
		205.31		8.525E-02	6.696E-01	9.387E-01	1.907E-01	0.091
NP-236		94.67		3.906E-01	1.389E-01	2.310E-01	2.149E-02	1.691
		98.44		7.799E-02	7.963E-02	1.300E-01	1.172E-02	0.600
		111.00		-1.850E-02	1.521E-01	2.505E-01	2.126E-02	-0.074
		160.31	*	-1.126E-01	8.746E-02	1.315E-01	1.308E-02	-0.856
NP-239		99.55		3.417E-01	1.711E-01	2.982E-01	2.668E-02	1.146

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.00	*	-1.141E-01	2.123E-01	3.419E-01	2.867E-02	-0.334
	+	209.75		1.384E+00	9.520E-01	1.402E+00	1.569E-01	0.987
		228.18		9.274E-02	2.709E-01	4.362E-01	5.043E-02	0.213
		277.60		4.157E-02	1.927E-01	3.272E-01	4.050E-02	0.127
		334.30		-2.754E-01	1.603E+00	2.300E+00	2.665E-01	-0.120
AM-241		59.54	*	-7.191E-02	2.020E-01	3.044E-01	2.494E-02	-0.236
CM-243		99.55		3.516E-01	1.761E-01	3.069E-01	2.746E-02	1.146
		103.76	*	1.131E-01	1.005E-01	1.740E-01	1.519E-02	0.650
		117.00		-1.173E-01	2.184E-01	3.518E-01	2.950E-02	-0.334
	+	209.75		1.365E+00	9.385E-01	1.382E+00	1.546E-01	0.987
		228.18		9.371E-02	2.737E-01	4.407E-01	5.096E-02	0.213
		277.60		4.191E-02	1.943E-01	3.298E-01	4.083E-02	0.127
AM-246		798.80		-1.369E-01	1.854E-01	2.353E-01	2.256E-02	-0.582
		1036.00		5.235E-02	3.546E-01	6.019E-01	5.663E-02	0.087
		1062.04		4.311E-03	2.724E-01	4.560E-01	4.192E-02	0.009
		1078.86	*	9.328E-02	1.632E-01	2.867E-01	2.593E-02	0.325
CM-247		278.00		1.500E-01	7.965E-01	1.350E+00	1.672E-01	0.111
		287.40		5.275E-01	1.372E+00	2.343E+00	2.888E-01	0.225
		402.60	*	1.260E-02	4.335E-02	7.224E-02	7.248E-03	0.174
CF-249		252.85		2.916E-01	9.261E-01	1.589E+00	1.908E-01	0.183
		333.44		4.492E-02	2.038E-01	3.026E-01	3.510E-02	0.148
		387.95	*	1.618E-02	4.703E-02	7.880E-02	7.980E-03	0.205
CF-251		176.60	*	4.828E-02	1.413E-01	2.312E-01	2.422E-02	0.209
		227.00		6.162E-02	4.594E-01	7.324E-01	8.451E-02	0.084
		285.00		7.492E-02	1.921E+00	3.227E+00	3.985E-01	0.023
ANH-511		511.00	*	7.157E-02	5.202E-02	9.812E-02	9.726E-03	0.729

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837006      *
* Acquisition date : 23-FEB-2010 12:13:46 Detector SN#     :               *
* Detector ID        : GAM02               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:03.15      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        :  8-FEB-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246837006           Analyst initials: MXR1          *
* Batch Number       : 952641               Sample Quantity : 1.2024E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07 MS Isotope       :                *
* MSD DPM            :    0.000             MSD Isotope      :              *
* LCS DPM            :    0.000             LCS Isotope      :              *
* LCSD DPM           :    0.000             LCSD Isotope     :              *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.749E+01	3.171E+00	6.764E-01	0.000E+00
CD-109	2.525E+00	1.232E+00	1.538E+00	0.000E+00
SN-126	2.482E-01	1.211E-01	1.580E-01	0.000E+00
BA-137M	2.129E-01	7.027E-02	7.805E-02	0.000E+00
CS-137	2.251E-01	7.430E-02	8.251E-02	0.000E+00
TL-208	3.804E-01	8.988E-02	7.265E-02	0.000E+00
BI-211	3.538E+00	6.731E-01	3.695E-01	0.000E+00
PB-212	1.485E+00	2.169E-01	9.402E-02	0.000E+00
PO-212	1.485E+00	2.169E-01	9.402E-02	0.000E+00
BI-214	1.174E+00	2.122E-01	1.285E-01	0.000E+00
PB-214	1.231E+00	2.425E-01	1.288E-01	0.000E+00
PO-214	1.231E+00	2.425E-01	1.288E-01	0.000E+00
PO-216	1.485E+00	2.169E-01	9.402E-02	0.000E+00
PO-218	1.231E+00	2.425E-01	1.288E-01	0.000E+00
RA-224	5.228E+00	1.617E+00	1.070E+00	0.000E+00
RA-226	1.174E+00	2.122E-01	1.285E-01	0.000E+00
AC-228	1.361E+00	3.499E-01	2.293E-01	0.000E+00
RA-228	1.361E+00	3.499E-01	2.293E-01	0.000E+00
TH-228	1.507E+00	2.202E-01	9.543E-02	0.000E+00
TH-230	1.174E+00	2.122E-01	1.285E-01	0.000E+00
TH-232	1.361E+00	3.499E-01	2.293E-01	0.000E+00
TH-234	6.943E+00	3.071E+00	2.476E+00	0.000E+00
U-234	1.174E+00	2.122E-01	1.285E-01	0.000E+00
NP-237	7.289E-01	3.850E-01	4.641E-01	0.000E+00
U-238	6.943E+00	3.071E+00	2.476E+00	0.000E+00
AM-243	3.999E-01	1.177E-01	9.855E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	9.326E-02	3.639E-01	6.176E-01	0.000E+00	NOT IDENT.

NA-22	-3.531E-02	5.347E-02	8.411E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.580E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.057E-02	3.380E-02	5.318E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.299E-02	7.523E-02	0.000E+00	FAIL ABUN
SC-46	2.919E-02	4.513E-02	7.948E-02	0.000E+00	FAIL ABUN
V-48	2.795E-02	8.152E-02	1.387E-01	0.000E+00	NOT IDENT.
CR-51	1.528E-01	4.149E-01	7.294E-01	0.000E+00	NOT IDENT.
MN-52	-7.988E-02	2.285E-01	3.552E-01	0.000E+00	NOT IDENT.
MN-54	-1.988E-02	4.153E-02	6.627E-02	0.000E+00	NOT IDENT.
CO-56	3.722E-02	4.602E-02	8.213E-02	0.000E+00	NOT IDENT.
CO-57	1.784E-03	2.716E-02	4.700E-02	0.000E+00	NOT IDENT.
CO-58	1.161E-02	4.626E-02	7.924E-02	0.000E+00	NOT IDENT.
FE-59	-3.317E-02	1.086E-01	1.797E-01	0.000E+00	NOT IDENT.
CO-60	-1.367E-02	4.731E-02	7.624E-02	0.000E+00	NOT IDENT.
ZN-65	-7.166E-02	1.090E-01	1.437E-01	0.000E+00	NOT IDENT.
GE-68	1.828E-01	1.414E+00	2.441E+00	0.000E+00	NOT IDENT.
AS-73	1.064E+00	1.181E+00	2.207E+00	0.000E+00	NOT IDENT.
AS-74	-1.343E-02	1.113E-01	1.725E-01	0.000E+00	NOT IDENT.
SE-75	-1.036E-02	4.974E-02	7.978E-02	0.000E+00	NOT IDENT.
BR-77	8.366E+00	1.101E+01	1.931E+01	0.000E+00	FAIL ABUN
SR-82	-5.862E-01	4.226E-01	6.109E-01	0.000E+00	NOT IDENT.
RB-83	3.283E-02	7.581E-02	1.297E-01	0.000E+00	NOT IDENT.
RB-84	1.429E-02	7.706E-02	1.305E-01	0.000E+00	NOT IDENT.
KR-85	-5.022E+01	1.195E+01	1.266E+01	0.000E+00	NOT IDENT.
SR-85	-2.572E-01	6.122E-02	6.485E-02	0.000E+00	NOT IDENT.
RB-86	5.186E-01	8.924E-01	1.601E+00	0.000E+00	NOT IDENT.
Y-88	2.617E-03	4.046E-02	6.729E-02	0.000E+00	NOT IDENT.
ZR-88	-2.150E-02	3.540E-02	5.748E-02	0.000E+00	NOT IDENT.
Y-91	-1.348E-01	2.268E+01	3.823E+01	0.000E+00	NOT IDENT.
NB-94	1.427E-02	3.990E-02	6.956E-02	0.000E+00	NOT IDENT.
NB-95	4.345E-02	5.096E-02	8.950E-02	0.000E+00	NOT IDENT.
NB-95M	8.984E-02	1.363E-01	2.209E-01	0.000E+00	NOT IDENT.
ZR-95	4.195E-02	8.436E-02	1.479E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.238E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.575E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.658E+00	1.218E+01	2.098E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.067E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.182E-02	3.747E-02	5.939E-02	0.000E+00	NOT IDENT.
RH-102	8.185E-03	3.196E-02	5.430E-02	0.000E+00	NOT IDENT.
RU-103	9.029E-03	4.464E-02	7.526E-02	0.000E+00	FAIL ABUN
RH-106	6.447E-02	3.582E-01	6.239E-01	0.000E+00	NOT IDENT.
RU-106	6.447E-02	3.582E-01	6.239E-01	0.000E+00	NOT IDENT.
AG-108M	-1.172E-02	3.395E-02	5.542E-02	0.000E+00	NOT IDENT.
AG-110M	-4.744E-02	4.904E-02	6.489E-02	0.000E+00	NOT IDENT.
IN-111	1.916E-01	1.176E+00	1.849E+00	0.000E+00	NOT IDENT.
IN-113M	1.232E-02	5.005E-02	8.619E-02	0.000E+00	NOT IDENT.
SN-113	1.232E-02	5.005E-02	8.619E-02	0.000E+00	NOT IDENT.
IN-114M	3.650E-02	2.208E-01	3.320E-01	0.000E+00	NOT IDENT.
CD-115	-7.748E+00	1.152E+01	1.782E+01	0.000E+00	NOT IDENT.
SN-117M	4.818E-02	5.674E-02	9.968E-02	0.000E+00	NOT IDENT.
SB-122	5.969E-02	2.170E+00	3.770E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.203E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.120E-02	2.943E-02	5.073E-02	0.000E+00	NOT IDENT.
I-124	1.161E-01	8.253E-01	1.258E+00	0.000E+00	FAIL ABUN
SB-124	-6.790E-02	8.644E-02	1.244E-01	0.000E+00	FAIL ABUN
SB-125	-9.635E-02	1.056E-01	1.651E-01	0.000E+00	FAIL ABUN
TE-125M	4.576E+00	9.929E+00	1.730E+01	0.000E+00	NOT IDENT.
I-126	3.602E-01	2.162E-01	3.766E-01	0.000E+00	NOT IDENT.
SB-126	6.006E-02	1.805E-01	2.873E-01	0.000E+00	NOT IDENT.
SB-127	-2.916E-01	1.494E+00	2.504E+00	0.000E+00	NOT IDENT.
XE-127	-6.992E-02	5.534E-02	8.537E-02	0.000E+00	NOT IDENT.
I-131	9.445E-02	1.278E-01	2.273E-01	0.000E+00	NOT IDENT.
TE-132	2.741E-01	7.939E-01	1.329E+00	0.000E+00	NOT IDENT.
BA-133	3.316E-02	4.953E-02	7.859E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.093E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.405E-02	6.498E-02	1.019E-01	0.000E+00	FAIL ABUN
CS-135	1.628E-01	1.809E-01	2.951E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.685E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.369E-02	1.226E-01	1.983E-01	0.000E+00	FAIL ABUN
CE-139	-1.343E-02	3.336E-02	5.524E-02	0.000E+00	NOT IDENT.
BA-140	9.855E-02	2.795E-01	4.715E-01	0.000E+00	NOT IDENT.
LA-140	-8.489E-02	9.474E-02	1.381E-01	0.000E+00	NOT IDENT.
CE-141	-7.347E-02	6.975E-02	1.129E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.278E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.440E-02	2.120E-01	3.654E-01	0.000E+00	NOT IDENT.
PM-144	-1.494E-03	4.200E-02	7.126E-02	0.000E+00	NOT IDENT.
PR-144	-1.012E-01	2.846E+00	4.829E+00	0.000E+00	NOT IDENT.
PM-146	-1.731E-02	5.150E-02	8.261E-02	0.000E+00	NOT IDENT.

ND-147	2.195E-01	6.279E-01	1.064E+00	0.000E+00	FAIL ABUN
PM-149	5.258E+00	9.574E+01	1.670E+02	0.000E+00	NOT IDENT.
EU-152	3.076E-02	1.169E-01	1.892E-01	0.000E+00	FAIL ABUN
GD-153	-1.002E-01	9.472E-02	1.384E-01	0.000E+00	NOT IDENT.
EU-154	-1.028E-01	1.492E-01	2.335E-01	0.000E+00	NOT IDENT.
EU-155	5.153E-02	1.105E-01	1.962E-01	0.000E+00	FAIL ABUN
TB-160	-2.448E-02	1.566E-01	2.563E-01	0.000E+00	FAIL ABUN
HO-166M	2.796E-02	6.898E-02	1.208E-01	0.000E+00	FAIL ABUN
TM-171	5.428E+00	3.333E+01	5.419E+01	0.000E+00	NOT IDENT.
LU-176	1.876E-02	2.712E-02	4.855E-02	0.000E+00	FAIL ABUN
LU-177	1.930E+00	1.301E+00	2.039E+00	0.000E+00	FAIL ABUN
LU-177M	-9.920E-02	1.909E-01	3.095E-01	0.000E+00	FAIL ABUN
HF-181	4.613E-03	4.892E-02	8.198E-02	0.000E+00	NOT IDENT.
W-181	-1.081E-01	4.336E-01	6.913E-01	0.000E+00	NOT IDENT.
TA-182	-1.141E-01	2.221E-01	3.562E-01	0.000E+00	FAIL ABUN
RE-183	-7.599E-02	1.224E-01	1.946E-01	0.000E+00	FAIL ABUN
RE-184	7.767E-02	2.418E-01	4.312E-01	0.000E+00	NOT IDENT.
OS-185	-5.300E-02	5.024E-02	7.586E-02	0.000E+00	NOT IDENT.
RE-188	5.508E-02	1.907E-01	3.276E-01	0.000E+00	NOT IDENT.
W-188	-1.792E+00	8.929E+00	1.345E+01	0.000E+00	FAIL ABUN
IR-192	-7.956E-04	3.822E-02	6.414E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.425E-01	4.426E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.466E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-5.951E+00	7.712E+00	1.251E+01	0.000E+00	NOT IDENT.
TL-202	-2.596E-02	7.579E-02	1.238E-01	0.000E+00	NOT IDENT.
HG-203	-2.265E-03	4.251E-02	7.388E-02	0.000E+00	NOT IDENT.
BI-207	-2.115E-02	6.168E-02	1.020E-01	0.000E+00	FAIL ABUN
TL-207	-6.003E-01	7.728E-01	1.259E+00	0.000E+00	FAIL ABUN
PO-209	6.621E+00	8.752E+00	1.552E+01	0.000E+00	NOT IDENT.
BI-210	1.004E+01	6.538E+00	1.129E+01	0.000E+00	NOT IDENT.
PB-210	1.004E+01	6.538E+00	1.129E+01	0.000E+00	NOT IDENT.
PO-210	1.004E+01	6.527E+00	1.129E+01	0.000E+00	NOT IDENT.
PB-211	-3.840E-01	1.097E+00	1.768E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.004E-01	7.273E-01	0.000E+00	FAIL ABUN
PO-215	-6.003E-01	7.728E-01	1.259E+00	0.000E+00	FAIL ABUN
RN-219	2.402E-01	4.709E-01	8.203E-01	0.000E+00	FAIL ABUN
RN-220	-3.931E+00	3.010E+01	4.890E+01	0.000E+00	NOT IDENT.
RA-223	-6.003E-01	7.728E-01	1.259E+00	0.000E+00	FAIL ABUN
AC-227	3.518E-02	3.903E-01	6.879E-01	0.000E+00	FAIL ABUN
TH-227	3.518E-02	3.903E-01	6.879E-01	0.000E+00	FAIL ABUN
TH-229	-1.383E-02	5.544E-01	9.240E-01	0.000E+00	FAIL ABUN
PA-231	-5.167E-01	1.618E+00	2.764E+00	0.000E+00	NOT IDENT.
TH-231	-6.003E-01	7.728E-01	1.259E+00	0.000E+00	FAIL ABUN
U-231	-1.805E+00	1.199E+00	1.711E+00	0.000E+00	FAIL ABUN
PA-233	-5.486E-02	6.830E-02	1.117E-01	0.000E+00	FAIL ABUN
PA-234	-8.407E-02	3.555E-01	5.722E-01	0.000E+00	FAIL ABUN
PA-234M	5.275E+00	6.208E+00	1.113E+01	0.000E+00	NOT IDENT.
U-235	3.166E-01	2.520E-01	4.246E-01	0.000E+00	FAIL ABUN
NP-236	-1.126E-01	8.571E-02	1.346E-01	0.000E+00	NOT IDENT.
NP-239	-1.141E-01	2.080E-01	3.515E-01	0.000E+00	FAIL ABUN
AM-241	-7.191E-02	1.980E-01	3.153E-01	0.000E+00	NOT IDENT.
CM-243	1.131E-01	9.848E-02	1.791E-01	0.000E+00	FAIL ABUN
AM-246	9.328E-02	1.599E-01	2.871E-01	0.000E+00	NOT IDENT.
CM-247	1.260E-02	4.249E-02	7.320E-02	0.000E+00	NOT IDENT.
CF-249	1.618E-02	4.609E-02	7.987E-02	0.000E+00	NOT IDENT.
CF-251	4.828E-02	1.385E-01	2.365E-01	0.000E+00	NOT IDENT.
ANH-511	7.157E-02	5.098E-02	9.913E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:14:18.59

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837006.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 12:13:46
Sample ID         : G246837006           Sample quantity  : 1.20240E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.15  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	966	10.67*	1.028E+00	2.749E+01	2.749E+01	11.77
CD-109	88.03	154	3.72*	5.232E+00	2.469E+00	2.525E+00	49.78
SN-126	64.28	213	9.60	2.516E+00	2.748E+00	2.748E+00	44.08
	86.94	154	8.90	5.232E+00	1.032E+00	1.032E+00	64.14
	87.57	154	37.00*	5.232E+00	2.482E-01	2.482E-01	49.78
BA-137M	661.65	127	89.98*	2.070E+00	2.127E-01	2.129E-01	33.68
CS-137	661.65	127	85.12*	2.070E+00	2.248E-01	2.251E-01	33.69
TL-208	277.35	------	6.80	3.991E+00	------	Line Not Found	------
	510.84	------	21.60	2.539E+00	------	Line Not Found	------
	583.14	235	84.20*	2.292E+00	3.804E-01	3.804E-01	24.11
	860.37	79	12.46	1.653E+00	1.196E+00	1.196E+00	49.15
BI-211	72.87	------	1.27	3.848E+00	------	Line Not Found	------
	351.07	491	12.94*	3.351E+00	3.538E+00	3.538E+00	19.41
PB-212	74.81	342	10.70	4.044E+00	2.467E+00	2.467E+00	31.46
	77.11	494	18.00	4.314E+00	1.986E+00	1.986E+00	17.54
	87.30	154	8.00	5.232E+00	1.148E+00	1.148E+00	50.78
	238.63	946	44.60*	4.458E+00	1.485E+00	1.485E+00	14.90
	300.09	106	3.41	3.769E+00	2.573E+00	2.573E+00	51.00
PO-212	74.81	342	10.70	4.044E+00	2.467E+00	2.467E+00	31.46
	77.11	494	18.00	4.314E+00	1.986E+00	1.986E+00	17.54
	87.30	154	8.00	5.232E+00	1.148E+00	1.148E+00	50.78
	115.19	------	0.60	6.220E+00	------	Line Not Found	------
	238.63	946	44.60*	4.458E+00	1.485E+00	1.485E+00	14.90
	300.09	106	3.41	3.769E+00	2.573E+00	2.573E+00	51.00
BI-214	609.31	386	46.30*	2.214E+00	1.174E+00	1.174E+00	18.44
	1120.29	61	15.10	1.298E+00	9.645E-01	9.645E-01	59.45
	1764.49	61	15.80	9.006E-01	1.337E+00	1.337E+00	29.85
PB-214	74.81	342	6.21	4.044E+00	4.250E+00	4.251E+00	30.94
	77.11	494	10.50	4.314E+00	3.405E+00	3.405E+00	19.12
	87.30	154	4.67	5.232E+00	1.967E+00	1.967E+00	50.38
	241.98	292	7.49	4.418E+00	2.757E+00	2.757E+00	32.05
	295.21	251	19.20	3.815E+00	1.069E+00	1.069E+00	26.67

Sample ID : G246837006 Acquisition date : 23-FEB-2010 12:13:46

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	491	37.20*	3.351E+00	1.231E+00	1.231E+00	20.10
PO-214	74.81	342	6.21	4.044E+00	4.250E+00	4.251E+00	30.94
	77.11	494	10.50	4.314E+00	3.405E+00	3.405E+00	19.12
	87.30	154	4.67	5.232E+00	1.967E+00	1.967E+00	50.38
	241.98	292	7.49	4.418E+00	2.757E+00	2.757E+00	32.05
	295.21	251	19.20	3.815E+00	1.069E+00	1.069E+00	26.67
	351.92	491	37.20*	3.351E+00	1.231E+00	1.231E+00	20.10
PO-216	74.81	342	10.70	4.044E+00	2.467E+00	2.467E+00	31.46
	77.11	494	18.00	4.314E+00	1.986E+00	1.986E+00	17.54
	87.30	154	8.00	5.232E+00	1.148E+00	1.148E+00	50.78
	238.63	946	44.60*	4.458E+00	1.485E+00	1.485E+00	14.90
	300.09	106	3.41	3.769E+00	2.573E+00	2.573E+00	51.00
PO-218	74.81	342	6.21	4.044E+00	4.250E+00	4.251E+00	30.94
	77.11	494	10.50	4.314E+00	3.405E+00	3.405E+00	19.12
	87.30	154	4.67	5.232E+00	1.967E+00	1.967E+00	50.38
	241.98	292	7.49	4.418E+00	2.757E+00	2.757E+00	32.05
	295.21	251	19.20	3.815E+00	1.069E+00	1.069E+00	26.67
	351.92	491	37.20*	3.351E+00	1.231E+00	1.231E+00	20.10
RA-224	240.98	292	3.95*	4.418E+00	5.228E+00	5.228E+00	31.55
RA-226	609.31	386	46.30*	2.214E+00	1.174E+00	1.174E+00	18.44
	1120.29	61	15.10	1.298E+00	9.645E-01	9.645E-01	59.45
	1764.49	61	15.80	9.006E-01	1.337E+00	1.337E+00	29.85
AC-228	338.32	230	11.40	3.451E+00	1.825E+00	1.825E+00	47.81
	911.07	190	27.70*	1.569E+00	1.361E+00	1.361E+00	26.23
	969.11	99	16.60	1.484E+00	1.257E+00	1.257E+00	43.37
RA-228	338.32	230	11.40	3.451E+00	1.825E+00	1.825E+00	47.81
	911.07	190	27.70*	1.569E+00	1.361E+00	1.361E+00	26.23
	969.11	99	16.60	1.484E+00	1.257E+00	1.257E+00	43.37
TH-228	74.81	342	10.70	4.044E+00	2.467E+00	2.504E+00	30.06
	77.11	494	18.00	4.314E+00	1.986E+00	2.016E+00	17.54
	87.30	154	8.00	5.232E+00	1.148E+00	1.165E+00	49.78
	238.63	946	44.60*	4.458E+00	1.485E+00	1.507E+00	14.90
	300.09	106	3.41	3.769E+00	2.573E+00	2.612E+00	77.50
TH-230	609.31	386	46.30*	2.214E+00	1.174E+00	1.174E+00	18.44
	1120.29	61	15.10	1.298E+00	9.645E-01	9.645E-01	59.45
	1764.49	61	15.80	9.006E-01	1.337E+00	1.337E+00	29.85
TH-232	338.32	230	11.40	3.451E+00	1.825E+00	1.825E+00	25.64
	911.07	190	27.70*	1.569E+00	1.361E+00	1.361E+00	26.23
	969.11	99	16.60	1.484E+00	1.257E+00	1.257E+00	43.37
TH-234	63.29	213	3.80*	2.516E+00	6.943E+00	6.943E+00	45.13
	92.38	457	5.41	5.588E+00	4.714E+00	4.714E+00	29.01
U-234	609.31	386	46.30*	2.214E+00	1.174E+00	1.174E+00	18.44
	1120.29	61	15.10	1.298E+00	9.645E-01	9.645E-01	59.45
	1764.49	61	15.80	9.006E-01	1.337E+00	1.337E+00	29.85
NP-237	86.50	154	12.60*	5.232E+00	7.289E-01	7.289E-01	53.89
	95.87	------	2.60	5.755E+00	------ Line Not Found		------
U-238	63.29	213	3.80*	2.516E+00	6.943E+00	6.943E+00	45.13
	92.38	457	5.41	5.588E+00	4.714E+00	4.714E+00	24.27
AM-243	74.67	342	66.00*	4.044E+00	3.999E-01	3.999E-01	30.04

Sample ID : G246837006 Acquisition date : 23-FEB-2010 12:13:46

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	154	0.34	5.232E+00	2.733E+01	2.733E+01	49.78
	117.66	------	0.55	6.232E+00	------	Line Not Found	------
	142.18	------	0.13	6.053E+00	------	Line Not Found	------

Flag: "*" = Keyline

Sample ID : G246837006 Acquisition date : 23-FEB-2010 12:13:46

Total number of lines in spectrum 29
Number of unidentified lines 1
Number of lines tentatively identified by NID 28 96.55%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.749E+01	2.749E+01	0.324E+01	11.77	
CD-109	464.00D	1.02	2.469E+00	2.525E+00	1.257E+00	49.78	
SN-126	1.00E+05Y	1.00	2.482E-01	2.482E-01	1.236E-01	49.78	
BA-137M	30.17Y	1.00	2.127E-01	2.129E-01	0.717E-01	33.68	
CS-137	30.17Y	1.00	2.248E-01	2.251E-01	0.758E-01	33.69	
TL-208	1.41E+10Y	1.00	3.804E-01	3.804E-01	0.917E-01	24.11	
BI-211	7.04E+08Y	1.00	3.538E+00	3.538E+00	0.687E+00	19.41	
PB-212	1.41E+10Y	1.00	1.485E+00	1.485E+00	0.221E+00	14.90	
PO-212	1.41E+10Y	1.00	1.485E+00	1.485E+00	0.221E+00	14.90	
BI-214	1600.00Y	1.00	1.174E+00	1.174E+00	0.217E+00	18.44	
PB-214	1600.00Y	1.00	1.231E+00	1.231E+00	0.247E+00	20.10	
PO-214	1600.00Y	1.00	1.231E+00	1.231E+00	0.247E+00	20.10	
PO-216	1.41E+10Y	1.00	1.485E+00	1.485E+00	0.221E+00	14.90	
PO-218	1600.00Y	1.00	1.231E+00	1.231E+00	0.247E+00	20.10	
RA-224	1.41E+10Y	1.00	5.228E+00	5.228E+00	1.650E+00	31.55	
RA-226	1600.00Y	1.00	1.174E+00	1.174E+00	0.217E+00	18.44	
AC-228	1.41E+10Y	1.00	1.361E+00	1.361E+00	0.357E+00	26.23	
RA-228	1.41E+10Y	1.00	1.361E+00	1.361E+00	0.357E+00	26.23	
TH-228	1.91Y	1.02	1.485E+00	1.507E+00	0.225E+00	14.90	
TH-230	4.47E+09Y	1.00	1.174E+00	1.174E+00	0.217E+00	18.44	
TH-232	1.41E+10Y	1.00	1.361E+00	1.361E+00	0.357E+00	26.23	
TH-234	4.47E+09Y	1.00	6.943E+00	6.943E+00	3.133E+00	45.13	
U-234	4.47E+09Y	1.00	1.174E+00	1.174E+00	0.217E+00	18.44	
NP-237	2.14E+06Y	1.00	7.289E-01	7.289E-01	3.928E-01	53.89	
U-238	4.47E+09Y	1.00	6.943E+00	6.943E+00	3.133E+00	45.13	
AM-243	7380.00Y	1.00	3.999E-01	3.999E-01	1.201E-01	30.04	
	Total Activity :		7.322E+01	7.330E+01			

Grand Total Activity : 7.322E+01 7.330E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246837006 Acquisition date : 23-FEB-2010 12:13:46

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.65	230	359	1.18	370.62	366	11	3.19E-02	37.1	5.29E+00	T
0	208.75	70	181	0.94	416.85	413	7	9.77E-03	67.9	4.90E+00	T
0	269.88	50	163	0.97	539.18	535	8	6.94E-03	92.8	4.07E+00	T
0	461.98	62	135	1.52	923.57	920	13	8.61E-03	80.3	2.74E+00	T
0	727.27	63	70	1.64	1454.48	1449	11	8.80E-03	57.3	1.91E+00	T
0	794.60	36	48	1.01	1589.23	1585	9	5.02E-03	78.3	1.77E+00	T
2	963.58	41	34	2.19	1927.42	1922	24	5.69E-03	65.7	1.49E+00	T
0	1377.38	35	7	1.99	2755.64	2751	10	4.83E-03	44.8	1.08E+00	T
0	1587.05	26	9	2.17	3175.31	3165	15	3.66E-03	60.3	9.65E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 14:14:22.98

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246837006.CNF;1  *
* Acquisition date : 23-FEB-2010 12:13:46  Detector SN#    :                *
* Detector ID      : GAM02                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:03.15         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 8-FEB-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G246837006            Analyst initials: MXR1           *
* Batch Number     : 952641                Sample Quantity : 1.20240E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07.3MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.749E+01	3.236E+00	6.780E-01	6.446E-02	40.539
CD-109	2.525E+00	1.257E+00	1.492E+00	1.498E-01	1.693
SN-126	2.482E-01	1.236E-01	1.532E-01	1.531E-02	1.621
BA-137M	2.129E-01	7.171E-02	7.749E-02	6.676E-03	2.747
CS-137	2.251E-01	7.581E-02	8.191E-02	7.071E-03	2.747
TL-208	3.804E-01	9.172E-02	7.202E-02	7.215E-03	5.282
BI-211	3.538E+00	6.869E-01	3.641E-01	4.201E-02	9.717
PB-212	1.485E+00	2.213E-01	9.222E-02	1.161E-02	16.101
PO-212	1.485E+00	2.213E-01	9.222E-02	1.161E-02	16.101
BI-214	1.174E+00	2.166E-01	1.274E-01	1.346E-02	9.216
PB-214	1.231E+00	2.474E-01	1.269E-01	1.605E-02	9.696
PO-214	1.231E+00	2.474E-01	1.269E-01	1.605E-02	9.696
PO-216	1.485E+00	2.213E-01	9.222E-02	1.161E-02	16.101
PO-218	1.231E+00	2.474E-01	1.269E-01	1.605E-02	9.696
RA-224	5.228E+00	1.650E+00	1.050E+00	1.239E-01	4.979
RA-226	1.174E+00	2.166E-01	1.274E-01	1.346E-02	9.216
AC-228	1.361E+00	3.570E-01	2.285E-01	2.849E-02	5.957
RA-228	1.361E+00	3.570E-01	2.285E-01	2.849E-02	5.957

Sample ID : G246837006 Acquisition date : 23-FEB-2010 12:13:46

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.507E+00	2.247E-01	9.361E-02	1.178E-02	16.101
TH-230	1.174E+00	2.166E-01	1.274E-01	1.346E-02	9.216
TH-232	1.361E+00	3.570E-01	2.285E-01	2.849E-02	5.957
TH-234	6.943E+00	3.133E+00	2.392E+00	4.223E-01	2.903
U-234	1.174E+00	2.166E-01	1.274E-01	1.346E-02	9.216
NP-237	7.289E-01	3.928E-01	4.500E-01	1.029E-01	1.620
U-238	6.943E+00	3.133E+00	2.392E+00	4.223E-01	2.903
AM-243	3.999E-01	1.201E-01	9.538E-02	8.340E-03	4.193

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.326E-02		3.713E-01	6.108E-01	6.478E-02	0.153
NA-22	-3.531E-02		5.456E-02	8.417E-02	7.463E-03	-0.419
NA-24	4.920E-01		3.357E-01	Half-Life too short		
AL-26	-1.057E-02		3.449E-02	5.345E-02	4.424E-03	-0.198
TI-44	3.665E-01	+	6.427E-02	7.285E-02	6.595E-03	5.031
SC-46	2.919E-02		4.605E-02	7.919E-02	8.051E-03	0.369
V-48	2.795E-02		8.319E-02	1.384E-01	1.354E-02	0.202
CR-51	1.528E-01		4.233E-01	7.180E-01	8.760E-02	0.213
MN-52	-7.988E-02		2.332E-01	3.560E-01	3.311E-02	-0.224
MN-54	-1.988E-02		4.238E-02	6.598E-02	6.482E-03	-0.301
CO-56	3.722E-02		4.696E-02	8.178E-02	8.097E-03	0.455
CO-57	1.784E-03		2.771E-02	4.575E-02	3.824E-03	0.039
CO-58	1.161E-02		4.720E-02	7.886E-02	7.638E-03	0.147
FE-59	-3.317E-02		1.108E-01	1.795E-01	1.712E-02	-0.185
CO-60	-1.367E-02		4.827E-02	7.634E-02	7.113E-03	-0.179
ZN-65	-7.166E-02		1.113E-01	1.436E-01	1.249E-02	-0.499
GE-68	1.828E-01		1.443E+00	2.437E+00	2.208E-01	0.075
AS-73	1.064E+00		1.205E+00	2.128E+00	1.761E-01	0.500
AS-74	-1.343E-02		1.135E-01	1.711E-01	1.597E-02	-0.078
SE-75	-1.036E-02		5.076E-02	7.835E-02	9.577E-03	-0.132
BR-77	8.366E+00		1.124E+01	1.911E+01	1.886E+00	0.438
SR-82	-5.862E-01		4.313E-01	6.077E-01	5.734E-02	-0.965
RB-83	3.283E-02		7.735E-02	1.284E-01	1.267E-02	0.256
RB-84	1.429E-02		7.864E-02	1.300E-01	1.316E-02	0.110
KR-85	-5.022E+01		1.220E+01	1.253E+01	1.241E+00	-4.006
SR-85	-2.572E-01		6.247E-02	6.419E-02	6.354E-03	-4.006
RB-86	5.186E-01		9.106E-01	1.599E+00	1.449E-01	0.324
Y-88	2.617E-03		4.128E-02	6.764E-02	5.517E-03	0.039
ZR-88	-2.150E-02		3.612E-02	5.671E-02	5.675E-03	-0.379
Y-91	-1.348E-01		2.314E+01	3.823E+01	3.175E+00	-0.004
NB-94	1.427E-02		4.071E-02	6.911E-02	6.162E-03	0.207
NB-95	4.345E-02		5.200E-02	8.901E-02	8.334E-03	0.488
NB-95M	8.984E-02		1.391E-01	2.166E-01	2.740E-02	0.415
ZR-95	4.195E-02		8.608E-02	1.471E-01	1.487E-02	0.285
NB-97	-1.065E-01		6.315E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	-7.335E+00		1.314E+00	Half-Life too short		
MO-99	2.658E+00		1.242E+01	2.086E+01	3.235E+00	0.127
TC-99M	-1.423E+10		1.565E+10	Half-Life too short		
RH-101	-2.182E-02		3.823E-02	5.813E-02	6.358E-03	-0.375
RH-102	8.185E-03		3.261E-02	5.370E-02	5.387E-03	0.152
RU-103	9.029E-03		4.555E-02	7.447E-02	1.118E-02	0.121
RH-106	6.447E-02		3.655E-01	6.190E-01	8.455E-02	0.104
RU-106	6.447E-02		3.655E-01	6.190E-01	5.621E-02	0.104
AG-108M	-1.172E-02		3.464E-02	5.475E-02	5.676E-03	-0.214
AG-110M	-4.744E-02		5.004E-02	6.442E-02	5.747E-03	-0.736
IN-111	1.916E-01		1.200E+00	1.815E+00	2.156E-01	0.106
IN-113M	1.232E-02		5.108E-02	8.504E-02	8.702E-03	0.145
SN-113	1.232E-02		5.108E-02	8.504E-02	8.702E-03	0.145
IN-114M	3.650E-02		2.253E-01	3.248E-01	3.498E-02	0.112
CD-115	-7.748E+00		1.176E+01	1.765E+01	1.735E+00	-0.439
SN-117M	4.818E-02		5.790E-02	9.732E-02	9.587E-03	0.495
SB-122	5.969E-02		2.214E+00	3.735E+00	3.587E-01	0.016
I-123	1.981E+00		2.655E+00	Half-Life too short		
TE-123M	1.120E-02		3.003E-02	4.953E-02	4.914E-03	0.226
I-124	1.161E-01		8.422E-01	1.247E+00	1.157E-01	0.093
SB-124	-6.790E-02		8.821E-02	1.249E-01	1.136E-02	-0.544
SB-125	-9.635E-02		1.078E-01	1.631E-01	1.665E-02	-0.591
TE-125M	4.576E+00		1.013E+01	1.681E+01	1.724E+00	0.272
I-126	3.602E-01		2.206E-01	3.740E-01	3.235E-02	0.963
SB-126	6.006E-02		1.841E-01	2.855E-01	2.582E-02	0.210
SB-127	-2.916E-01		1.525E+00	2.487E+00	2.856E-01	-0.117
XE-127	-6.992E-02		5.647E-02	8.358E-02	9.229E-03	-0.837
I-131	9.445E-02		1.304E-01	2.241E-01	2.514E-02	0.421
TE-132	2.741E-01		8.101E-01	1.303E+00	2.278E-01	0.210
BA-133	3.316E-02		5.054E-02	7.746E-02	1.156E-02	0.428
I-133	-1.672E-03		3.109E-03	Half-Life too short		
CS-134	8.405E-02	+	6.630E-02	1.014E-01	9.758E-03	0.829
CS-135	1.628E-01		1.846E-01	2.899E-01	3.835E-02	0.562
I-135	-3.156E+09		2.390E+09	Half-Life too short		
CS-136	-4.369E-02		1.251E-01	1.980E-01	1.911E-02	-0.221
CE-139	-1.343E-02		3.404E-02	5.396E-02	5.535E-03	-0.249
BA-140	9.855E-02		2.852E-01	4.669E-01	1.562E-01	0.211
LA-140	-8.489E-02		9.667E-02	1.386E-01	1.253E-02	-0.613
CE-141	-7.347E-02		7.117E-02	1.101E-01	1.029E-02	-0.667
CE-143	6.129E-04		1.162E-04	Half-Life too short		
CE-144	2.440E-02		2.163E-01	3.561E-01	5.558E-02	0.069
PM-144	-1.494E-03		4.285E-02	7.079E-02	6.282E-03	-0.021
PR-144	-1.012E-01		2.904E+00	4.797E+00	4.255E-01	-0.021
PM-146	-1.731E-02		5.255E-02	8.165E-02	9.731E-03	-0.212
ND-147	2.195E-01		6.407E-01	1.054E+00	1.651E-01	0.208
PM-149	5.258E+00		9.769E+01	1.642E+02	2.935E+01	0.032
EU-152	3.076E-02		1.193E-01	1.864E-01	2.191E-02	0.165
GD-153	-1.002E-01		9.665E-02	1.343E-01	1.221E-02	-0.746

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154	-1.028E-01		1.522E-01	2.337E-01	2.685E-02	-0.440
EU-155	5.153E-02		1.128E-01	1.907E-01	1.672E-02	0.270
TB-160	-2.448E-02		1.598E-01	2.553E-01	2.580E-02	-0.096
HO-166M	2.796E-02		7.039E-02	1.200E-01	1.078E-02	0.233
TM-171	5.428E+00		3.401E+01	5.238E+01	4.279E+00	0.104
LU-176	1.876E-02		2.767E-02	4.777E-02	5.771E-03	0.393
LU-177	1.930E+00	+	1.328E+00	1.997E+00	2.229E-01	0.967
LU-177M	-9.920E-02		1.948E-01	3.056E-01	3.072E-02	-0.325
HF-181	4.613E-03		4.992E-02	8.109E-02	8.120E-03	0.057
W-181	-1.081E-01		4.424E-01	6.681E-01	5.383E-02	-0.162
TA-182	-1.141E-01		2.266E-01	3.562E-01	3.005E-02	-0.320
RE-183	-7.599E-02		1.249E-01	1.900E-01	1.911E-02	-0.400
RE-184	7.767E-02		2.467E-01	4.233E-01	5.082E-02	0.183
OS-185	-5.300E-02		5.126E-02	7.530E-02	6.632E-03	-0.704
RE-188	5.508E-02		1.946E-01	3.197E-01	3.090E-02	0.172
W-188	-1.792E+00		9.111E+00	1.323E+01	1.626E+00	-0.135
IR-192	-7.956E-04		3.900E-02	6.312E-02	7.537E-03	-0.013
AU-195	4.773E-01		2.475E-01	4.297E-01	3.863E-02	1.111
TL-200	4.787E-06		2.279E-04	Half-Life too short		
TL-201	-5.951E+00		7.869E+00	1.222E+01	1.257E+00	-0.487
TL-202	-2.596E-02		7.734E-02	1.223E-01	1.232E-02	-0.212
HG-203	-2.265E-03		4.338E-02	7.261E-02	9.129E-03	-0.031
BI-207	-2.115E-02		6.294E-02	1.019E-01	9.351E-03	-0.208
TL-207	-6.003E-01		7.885E-01	1.239E+00	2.410E-01	-0.484
PO-209	6.621E+00		8.930E+00	1.546E+01	1.579E+00	0.428
BI-210	1.004E+01		6.672E+00	1.087E+01	1.042E+00	0.924
PB-210	1.004E+01		6.672E+00	1.087E+01	1.042E+00	0.924
PO-210	1.004E+01		6.660E+00	1.087E+01	9.491E-01	0.924
PB-211	-3.840E-01		1.119E+00	1.745E+00	1.097E+00	-0.220
BI-212	8.763E-01	+	5.106E-01	7.229E-01	7.530E-02	1.212
PO-215	-6.003E-01		7.885E-01	1.239E+00	2.410E-01	-0.484
RN-219	2.402E-01		4.805E-01	8.096E-01	1.285E-01	0.297
RN-220	-3.931E+00		3.071E+01	4.845E+01	4.699E+00	-0.081
RA-223	-6.003E-01		7.885E-01	1.239E+00	2.410E-01	-0.484
AC-227	3.518E-02		3.982E-01	6.753E-01	1.183E-01	0.052
TH-227	3.518E-02		3.983E-01	6.753E-01	1.346E-01	0.052
TH-229	-1.383E-02		5.657E-01	9.042E-01	9.805E-02	-0.015
PA-231	-5.167E-01		1.651E+00	2.716E+00	4.775E-01	-0.190
TH-231	-6.003E-01		7.885E-01	1.239E+00	2.410E-01	-0.484
U-231	-1.805E+00		1.223E+00	1.660E+00	1.528E-01	-1.087
PA-233	-5.486E-02		6.970E-02	1.099E-01	1.339E-02	-0.499
PA-234	-8.407E-02		3.627E-01	5.705E-01	1.109E-01	-0.147
PA-234M	5.275E+00		6.335E+00	1.111E+01	1.209E+00	0.475
U-235	3.166E-01		2.571E-01	4.141E-01	7.353E-02	0.765
NP-236	-1.126E-01		8.746E-02	1.315E-01	1.308E-02	-0.856
NP-239	-1.141E-01		2.123E-01	3.419E-01	2.867E-02	-0.334
AM-241	-7.191E-02		2.020E-01	3.044E-01	2.494E-02	-0.236
CM-243	1.131E-01		1.005E-01	1.740E-01	1.519E-02	0.650

Sample ID : G246837006 Acquisition date : 23-FEB-2010 12:13:46

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-246	9.328E-02		1.632E-01	2.867E-01	2.593E-02	0.325
CM-247	1.260E-02		4.335E-02	7.224E-02	7.248E-03	0.174
CF-249	1.618E-02		4.703E-02	7.880E-02	7.980E-03	0.205
CF-251	4.828E-02		1.413E-01	2.312E-01	2.422E-02	0.209
ANH-511	7.157E-02		5.202E-02	9.812E-02	9.726E-03	0.729

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246837006            *
* Acquisition date : 23-FEB-2010 12:13:46 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:03.15     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  8-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G246837006           Analyst initials: MXR1            *
* Batch Number     : 952641               Sample Quantity : 1.2024E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.749E+01	3.171E+00	3.384E-01	1.618E+00
CD-109	2.525E+00	1.232E+00	7.696E-01	6.285E-01
SN-126	2.482E-01	1.211E-01	7.903E-02	6.179E-02
BA-137M	2.129E-01	7.027E-02	3.905E-02	3.585E-02
CS-137	2.251E-01	7.430E-02	4.128E-02	3.791E-02
TL-208	3.804E-01	8.988E-02	3.635E-02	4.586E-02
BI-211	3.538E+00	6.731E-01	1.849E-01	3.434E-01
PB-212	1.485E+00	2.169E-01	4.704E-02	1.107E-01
PO-212	1.485E+00	2.169E-01	4.704E-02	1.107E-01
BI-214	1.174E+00	2.122E-01	6.426E-02	1.083E-01
PB-214	1.231E+00	2.425E-01	6.444E-02	1.237E-01
PO-214	1.231E+00	2.425E-01	6.444E-02	1.237E-01
PO-216	1.485E+00	2.169E-01	4.704E-02	1.107E-01
PO-218	1.231E+00	2.425E-01	6.444E-02	1.237E-01
RA-224	5.228E+00	1.617E+00	5.355E-01	8.249E-01
RA-226	1.174E+00	2.122E-01	6.426E-02	1.083E-01
AC-228	1.361E+00	3.499E-01	1.147E-01	1.785E-01
RA-228	1.361E+00	3.499E-01	1.147E-01	1.785E-01
TH-228	1.507E+00	2.202E-01	4.775E-02	1.123E-01
TH-230	1.174E+00	2.122E-01	6.426E-02	1.083E-01
TH-232	1.361E+00	3.499E-01	1.147E-01	1.785E-01
TH-234	6.943E+00	3.071E+00	1.239E+00	1.567E+00
U-234	1.174E+00	2.122E-01	6.426E-02	1.083E-01
NP-237	7.289E-01	3.850E-01	2.322E-01	1.964E-01
U-238	6.943E+00	3.071E+00	1.239E+00	1.567E+00
AM-243	3.999E-01	1.177E-01	4.930E-02	6.006E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	9.326E-02	3.639E-01	3.090E-01	1.856E-01 NOT IDENT.

NA-22	-3.531E-02	5.347E-02	4.208E-02	2.728E-02	NOT IDENT.
NA-24	4.920E+05	6.580E+05	0.000E+00	3.357E+05	SHORT HLIF
AL-26	-1.057E-02	3.380E-02	2.661E-02	1.724E-02	NOT IDENT.
TI-44	3.665E-01	6.299E-02	3.764E-02	3.214E-02	FAIL ABUN
SC-46	2.919E-02	4.513E-02	3.976E-02	2.302E-02	FAIL ABUN
V-48	2.795E-02	8.152E-02	6.941E-02	4.159E-02	NOT IDENT.
CR-51	1.528E-01	4.149E-01	3.649E-01	2.117E-01	NOT IDENT.
MN-52	-7.988E-02	2.285E-01	1.777E-01	1.166E-01	NOT IDENT.
MN-54	-1.988E-02	4.153E-02	3.315E-02	2.119E-02	NOT IDENT.
CO-56	3.722E-02	4.602E-02	4.109E-02	2.348E-02	NOT IDENT.
CO-57	1.784E-03	2.716E-02	2.351E-02	1.386E-02	NOT IDENT.
CO-58	1.161E-02	4.626E-02	3.964E-02	2.360E-02	NOT IDENT.
FE-59	-3.317E-02	1.086E-01	8.991E-02	5.540E-02	NOT IDENT.
CO-60	-1.367E-02	4.731E-02	3.814E-02	2.414E-02	NOT IDENT.
ZN-65	-7.166E-02	1.090E-01	7.191E-02	5.563E-02	NOT IDENT.
GE-68	1.828E-01	1.414E+00	1.221E+00	7.214E-01	NOT IDENT.
AS-73	1.064E+00	1.181E+00	1.104E+00	6.025E-01	NOT IDENT.
AS-74	-1.343E-02	1.113E-01	8.631E-02	5.677E-02	NOT IDENT.
SE-75	-1.036E-02	4.974E-02	3.991E-02	2.538E-02	NOT IDENT.
BR-77	8.366E+00	1.101E+01	9.658E+00	5.619E+00	FAIL ABUN
SR-82	-5.862E-01	4.226E-01	3.056E-01	2.156E-01	NOT IDENT.
RB-83	3.283E-02	7.581E-02	6.488E-02	3.868E-02	NOT IDENT.
RB-84	1.429E-02	7.706E-02	6.530E-02	3.932E-02	NOT IDENT.
KR-85	-5.022E+01	1.195E+01	6.335E+00	6.099E+00	NOT IDENT.
SR-85	-2.572E-01	6.122E-02	3.244E-02	3.124E-02	NOT IDENT.
RB-86	5.186E-01	8.924E-01	8.009E-01	4.553E-01	NOT IDENT.
Y-88	2.617E-03	4.046E-02	3.367E-02	2.064E-02	NOT IDENT.
ZR-88	-2.150E-02	3.540E-02	2.875E-02	1.806E-02	NOT IDENT.
Y-91	-1.348E-01	2.268E+01	1.913E+01	1.157E+01	NOT IDENT.
NB-94	1.427E-02	3.990E-02	3.480E-02	2.036E-02	NOT IDENT.
NB-95	4.345E-02	5.096E-02	4.478E-02	2.600E-02	NOT IDENT.
NB-95M	8.984E-02	1.363E-01	1.105E-01	6.953E-02	NOT IDENT.
ZR-95	4.195E-02	8.436E-02	7.399E-02	4.304E-02	NOT IDENT.
NB-97	-1.065E+05	1.238E+05	0.000E+00	6.315E+04	SHORT HLIF
ZR-97	-7.335E+06	2.575E+06	0.000E+00	1.314E+06	SHORT HLIF
MO-99	2.658E+00	1.218E+01	1.050E+01	6.212E+00	NOT IDENT.
TC-99M	-1.423E+16	3.067E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.182E-02	3.747E-02	2.971E-02	1.912E-02	NOT IDENT.
RH-102	8.185E-03	3.196E-02	2.717E-02	1.630E-02	NOT IDENT.
RU-103	9.029E-03	4.464E-02	3.765E-02	2.278E-02	FAIL ABUN
RH-106	6.447E-02	3.582E-01	3.121E-01	1.828E-01	NOT IDENT.
RU-106	6.447E-02	3.582E-01	3.121E-01	1.827E-01	NOT IDENT.
AG-108M	-1.172E-02	3.395E-02	2.773E-02	1.732E-02	NOT IDENT.
AG-110M	-4.744E-02	4.904E-02	3.247E-02	2.502E-02	NOT IDENT.
IN-111	1.916E-01	1.176E+00	9.251E-01	6.001E-01	NOT IDENT.
IN-113M	1.232E-02	5.005E-02	4.312E-02	2.554E-02	NOT IDENT.
SN-113	1.232E-02	5.005E-02	4.312E-02	2.554E-02	NOT IDENT.
IN-114M	3.650E-02	2.208E-01	1.661E-01	1.127E-01	NOT IDENT.
CD-115	-7.748E+00	1.152E+01	8.916E+00	5.878E+00	NOT IDENT.
SN-117M	4.818E-02	5.674E-02	4.987E-02	2.895E-02	NOT IDENT.
SB-122	5.969E-02	2.170E+00	1.886E+00	1.107E+00	NOT IDENT.
I-123	1.981E+06	5.203E+06	0.000E+00	2.655E+06	SHORT HLIF
TE-123M	1.120E-02	2.943E-02	2.538E-02	1.502E-02	NOT IDENT.
I-124	1.161E-01	8.253E-01	6.293E-01	4.211E-01	FAIL ABUN
SB-124	-6.790E-02	8.644E-02	6.222E-02	4.410E-02	FAIL ABUN
SB-125	-9.635E-02	1.056E-01	8.259E-02	5.388E-02	FAIL ABUN
TE-125M	4.576E+00	9.929E+00	8.653E+00	5.066E+00	NOT IDENT.
I-126	3.602E-01	2.162E-01	1.884E-01	1.103E-01	NOT IDENT.
SB-126	6.006E-02	1.805E-01	1.437E-01	9.207E-02	NOT IDENT.
SB-127	-2.916E-01	1.494E+00	1.253E+00	7.623E-01	NOT IDENT.
XE-127	-6.992E-02	5.534E-02	4.271E-02	2.824E-02	NOT IDENT.
I-131	9.445E-02	1.278E-01	1.137E-01	6.519E-02	NOT IDENT.
TE-132	2.741E-01	7.939E-01	6.649E-01	4.051E-01	NOT IDENT.
BA-133	3.316E-02	4.953E-02	3.932E-02	2.527E-02	NOT IDENT.
I-133	-1.672E+03	6.093E+03	0.000E+00	3.109E+03	SHORT HLIF
CS-134	8.405E-02	6.498E-02	5.099E-02	3.315E-02	FAIL ABUN
CS-135	1.628E-01	1.809E-01	1.476E-01	9.230E-02	NOT IDENT.
I-135	-3.156E+15	4.685E+15	0.000E+00	2.390E+15	SHORT HLIF
CS-136	-4.369E-02	1.226E-01	9.922E-02	6.256E-02	FAIL ABUN
CE-139	-1.343E-02	3.336E-02	2.764E-02	1.702E-02	NOT IDENT.
BA-140	9.855E-02	2.795E-01	2.359E-01	1.426E-01	NOT IDENT.
LA-140	-8.489E-02	9.474E-02	6.910E-02	4.833E-02	NOT IDENT.
CE-141	-7.347E-02	6.975E-02	5.650E-02	3.559E-02	NOT IDENT.
CE-143	6.129E+02	2.278E+02	0.000E+00	1.162E+02	SHORT HLIF
CE-144	2.440E-02	2.120E-01	1.828E-01	1.082E-01	NOT IDENT.
PM-144	-1.494E-03	4.200E-02	3.565E-02	2.143E-02	NOT IDENT.
PR-144	-1.012E-01	2.846E+00	2.416E+00	1.452E+00	NOT IDENT.
PM-146	-1.731E-02	5.150E-02	4.133E-02	2.628E-02	NOT IDENT.

ND-147	2.195E-01	6.279E-01	5.324E-01	3.204E-01	FAIL ABUN
PM-149	5.258E+00	9.574E+01	8.357E+01	4.885E+01	NOT IDENT.
EU-152	3.076E-02	1.169E-01	9.467E-02	5.967E-02	FAIL ABUN
GD-153	-1.002E-01	9.472E-02	6.923E-02	4.833E-02	NOT IDENT.
EU-154	-1.028E-01	1.492E-01	1.168E-01	7.610E-02	NOT IDENT.
EU-155	5.153E-02	1.105E-01	9.818E-02	5.640E-02	FAIL ABUN
TB-160	-2.448E-02	1.566E-01	1.282E-01	7.989E-02	FAIL ABUN
HO-166M	2.796E-02	6.898E-02	6.044E-02	3.519E-02	FAIL ABUN
TM-171	5.428E+00	3.333E+01	2.711E+01	1.701E+01	NOT IDENT.
LU-176	1.876E-02	2.712E-02	2.429E-02	1.383E-02	FAIL ABUN
LU-177	1.930E+00	1.301E+00	1.020E+00	6.638E-01	FAIL ABUN
LU-177M	-9.920E-02	1.909E-01	1.548E-01	9.738E-02	FAIL ABUN
HF-181	4.613E-03	4.892E-02	4.101E-02	2.496E-02	NOT IDENT.
W-181	-1.081E-01	4.336E-01	3.459E-01	2.212E-01	NOT IDENT.
TA-182	-1.141E-01	2.221E-01	1.782E-01	1.133E-01	FAIL ABUN
RE-183	-7.599E-02	1.224E-01	9.735E-02	6.246E-02	FAIL ABUN
RE-184	7.767E-02	2.418E-01	2.157E-01	1.234E-01	NOT IDENT.
OS-185	-5.300E-02	5.024E-02	3.795E-02	2.563E-02	NOT IDENT.
RE-188	5.508E-02	1.907E-01	1.639E-01	9.730E-02	NOT IDENT.
W-188	-1.792E+00	8.929E+00	6.730E+00	4.556E+00	FAIL ABUN
IR-192	-7.956E-04	3.822E-02	3.209E-02	1.950E-02	FAIL ABUN
AU-195	4.773E-01	2.425E-01	2.214E-01	1.237E-01	FAIL ABUN
TL-200	4.787E+00	4.466E+02	0.000E+00	2.279E+02	SHORT HLIF
TL-201	-5.951E+00	7.712E+00	6.257E+00	3.935E+00	NOT IDENT.
TL-202	-2.596E-02	7.579E-02	6.194E-02	3.867E-02	NOT IDENT.
HG-203	-2.265E-03	4.251E-02	3.696E-02	2.169E-02	NOT IDENT.
BI-207	-2.115E-02	6.168E-02	5.103E-02	3.147E-02	FAIL ABUN
TL-207	-6.003E-01	7.728E-01	6.298E-01	3.943E-01	FAIL ABUN
PO-209	6.621E+00	8.752E+00	7.763E+00	4.465E+00	NOT IDENT.
BI-210	1.004E+01	6.538E+00	5.651E+00	3.336E+00	NOT IDENT.
PB-210	1.004E+01	6.538E+00	5.651E+00	3.336E+00	NOT IDENT.
PO-210	1.004E+01	6.527E+00	5.651E+00	3.330E+00	NOT IDENT.
PB-211	-3.840E-01	1.097E+00	8.843E-01	5.597E-01	NOT IDENT.
BI-212	8.763E-01	5.004E-01	3.638E-01	2.553E-01	FAIL ABUN
PO-215	-6.003E-01	7.728E-01	6.298E-01	3.943E-01	FAIL ABUN
RN-219	2.402E-01	4.709E-01	4.104E-01	2.402E-01	FAIL ABUN
RN-220	-3.931E+00	3.010E+01	2.447E+01	1.536E+01	NOT IDENT.
RA-223	-6.003E-01	7.728E-01	6.298E-01	3.943E-01	FAIL ABUN
AC-227	3.518E-02	3.903E-01	3.441E-01	1.991E-01	FAIL ABUN
TH-227	3.518E-02	3.903E-01	3.441E-01	1.991E-01	FAIL ABUN
TH-229	-1.383E-02	5.544E-01	4.623E-01	2.829E-01	FAIL ABUN
PA-231	-5.167E-01	1.618E+00	1.383E+00	8.257E-01	NOT IDENT.
TH-231	-6.003E-01	7.728E-01	6.298E-01	3.943E-01	FAIL ABUN
U-231	-1.805E+00	1.199E+00	8.558E-01	6.117E-01	FAIL ABUN
PA-233	-5.486E-02	6.830E-02	5.589E-02	3.485E-02	FAIL ABUN
PA-234	-8.407E-02	3.555E-01	2.863E-01	1.814E-01	FAIL ABUN
PA-234M	5.275E+00	6.208E+00	5.569E+00	3.167E+00	NOT IDENT.
U-235	3.166E-01	2.520E-01	2.124E-01	1.286E-01	FAIL ABUN
NP-236	-1.126E-01	8.571E-02	6.736E-02	4.373E-02	NOT IDENT.
NP-239	-1.141E-01	2.080E-01	1.758E-01	1.061E-01	FAIL ABUN
AM-241	-7.191E-02	1.980E-01	1.577E-01	1.010E-01	NOT IDENT.
CM-243	1.131E-01	9.848E-02	8.962E-02	5.025E-02	FAIL ABUN
AM-246	9.328E-02	1.599E-01	1.436E-01	8.160E-02	NOT IDENT.
CM-247	1.260E-02	4.249E-02	3.662E-02	2.168E-02	NOT IDENT.
CF-249	1.618E-02	4.609E-02	3.996E-02	2.351E-02	NOT IDENT.
CF-251	4.828E-02	1.385E-01	1.183E-01	7.066E-02	NOT IDENT.
ANH-511	7.157E-02	5.098E-02	4.960E-02	2.601E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                    GAMMA SPECTROSCOPY BACKGROUND REPORT                   *
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ENERGY	MDA COUNTS
46.50	188.7572
46.50	188.7572
46.50	188.7572
48.70	262.3632
49.72	225.8627
51.35	260.1719
52.39	240.9366
52.97	244.7675
53.15	244.9133
53.44	238.4092
54.07	251.5656
56.28	258.4668
56.28	258.4691
57.37	0.0000
57.53	250.9568
57.53	250.9583
57.60	251.0121
57.98	241.0529
57.98	241.0529
59.32	245.9188
59.32	245.9188
59.40	245.9792
59.54	256.3921
59.72	256.5333
60.01	251.5993
61.10	240.7817
61.14	240.8108
61.30	240.9264
63.00	260.3752
63.29	260.5976
63.29	260.5976
63.58	260.8196
64.28	278.3417
65.12	286.8795
65.20	286.9459
65.20	286.9459
66.05	296.8405
66.72	285.5608
66.83	285.6519
66.91	304.1498
67.20	318.8953
67.20	318.8953
67.75	310.4137
67.85	311.5577
68.90	297.6415
68.90	297.6415
69.30	301.1520
69.67	299.8700
70.82	310.1304
70.82	310.1304
70.83	310.1393
72.80	323.8342
72.87	323.8932
72.87	323.8932
74.67	310.1994
74.81	310.3121
74.81	310.3121
74.81	310.3121
74.81	310.3121
74.81	310.3121
74.81	310.3121
74.81	310.3121
74.97	310.4423
75.28	310.6940
75.70	311.0336
77.11	312.1687
77.11	312.1687

77.11	312.1687
77.11	312.1687
77.11	312.1687
77.11	312.1687
77.11	312.1687
78.38	313.6332
79.62	277.8432
79.80	272.5174
79.80	272.5174
80.11	272.7295
80.18	272.7768
80.30	311.0595
80.30	311.0595
80.57	324.9203
81.00	367.6339
81.07	354.0284
81.07	354.0284
81.07	354.0284
81.07	354.0284
82.60	349.0527
83.37	342.2819
83.78	327.4897
83.78	327.4897
83.78	327.4897
83.78	327.4897
84.21	305.7903
84.90	300.7795
85.43	339.8434
86.29	411.1372
86.50	411.3434
86.54	417.3841
86.59	417.4324
86.72	417.5611
86.79	417.6278
86.94	417.7772
87.30	423.2215
87.30	423.2215
87.30	423.2215
87.30	423.2215
87.30	423.2215
87.30	423.2215
87.30	423.2215
87.57	423.4891
87.88	392.7642
88.03	392.9022
88.36	347.7631
88.47	347.8527
89.95	349.0467
91.11	406.9049
92.29	321.9069
92.38	321.9716
92.38	321.9716
93.35	322.6750
94.00	323.1456
94.67	204.6165
94.67	204.6187
94.90	234.3734
94.90	234.3734
94.90	234.3734
94.90	234.3734
95.87	314.1116
95.87	314.1116
96.73	296.2773
97.43	300.9871
98.44	245.8701
98.44	245.8701
98.88	212.6820
99.55	213.9393
99.55	213.9393
99.86	221.6930
100.00	221.7593
100.10	255.1281
103.18	281.7007
103.76	226.4019
105.00	230.8301
105.31	249.2635
108.00	290.3107
109.28	252.2519

111.00	282.3225
111.00	282.3225
111.76	311.0221
112.95	277.5460
115.19	280.7195
116.30	290.1716
117.00	290.5602
117.00	290.5602
117.66	262.3254
121.11	264.0328
121.62	248.3864
121.78	258.3985
122.06	258.5321
122.32	243.7339
122.32	243.7339
122.32	243.7339
122.32	243.7339
123.07	246.0641
127.23	257.9686
129.76	259.1333
131.20	278.9985
133.02	245.4071
133.54	242.5836
135.34	235.1921
136.00	249.7303
136.25	242.6981
136.48	242.7937
140.51	278.3440
140.51	0.0000
142.18	259.5494
142.65	271.0876
143.76	232.3448
144.24	203.5891
144.24	203.5891
144.24	203.5891
144.24	203.5891
145.22	305.3561
145.44	305.4671
147.16	278.2834
152.43	261.7798
152.70	245.1306
153.22	247.4274
154.21	277.2102
154.21	277.2102
154.21	277.2102
154.21	277.2102
155.03	262.8454
156.02	282.2037
158.56	206.1362
159.00	0.0000
159.00	214.7376
160.31	263.9217
161.27	238.8290
162.32	243.4593
162.64	235.0665
163.35	217.2148
163.89	201.4066
165.85	262.9115
167.43	271.0207
171.28	236.9928
171.86	242.5827
172.10	242.6651
176.55	221.4150
176.60	221.4296
181.06	204.7901
184.41	260.0505
185.71	236.3263
186.00	236.4204
190.27	217.3206
192.34	225.1267
193.63	217.7326
197.04	228.7482
198.01	235.7395
198.60	215.7919
200.40	217.4132
201.83	250.3691
202.84	273.1748
205.31	213.1345

208.36	192.4398
208.81	180.0897
209.75	231.3262
209.75	231.3262
210.97	190.7910
215.65	237.5737
216.55	211.5332
218.09	210.7809
222.10	216.3958
223.80	220.2900
226.40	222.1191
227.00	209.5409
227.08	209.5611
227.20	209.5887
228.16	204.0264
228.18	204.0317
228.18	204.0317
231.56	0.0000
235.69	175.3937
236.00	168.4380
236.00	168.4380
238.63	159.2588
238.63	159.2588
238.63	159.2588
238.63	159.2588
239.00	159.3237
240.98	159.6772
241.98	152.6120
241.98	152.6120
241.98	152.6120
244.69	187.0849
245.39	158.8617
247.94	163.5718
248.90	161.0733
249.79	163.0095
252.40	154.5361
252.85	151.9302
252.85	151.9302
254.15	0.0000
256.20	150.6812
256.20	150.6812
260.50	151.3656
260.90	153.2324
262.80	155.3422
264.65	156.8479
268.24	136.6006
268.79	132.3144
269.46	163.6880
269.46	163.6880
269.46	163.6880
269.46	163.6880
271.23	164.7107
273.65	159.2715
276.40	150.1865
277.35	152.1624
277.60	153.1173
277.60	153.1173
278.00	152.2612
278.60	156.9413
279.20	152.4436
279.53	141.4706
280.46	142.5193
281.68	158.3420
283.67	148.5054
284.30	153.2136
285.00	146.8523
285.90	147.9053
286.10	147.9346
286.10	147.9346
287.40	144.4195
288.45	0.0000
290.67	153.0491
290.80	163.4719
291.72	172.5387
293.26	0.0000
293.70	138.5918
295.21	152.9692
295.21	152.9692

295.21	152.9692
295.96	153.0793
296.50	153.1569
297.23	153.2620
298.57	153.4572
299.80	107.9191
299.80	107.9191
300.09	107.9490
300.09	107.9490
300.09	107.9490
300.09	107.9490
300.12	107.9508
301.29	130.5850
302.84	123.2582
303.76	139.9132
303.91	141.4360
304.40	139.9950
304.40	139.9950
304.84	153.6051
306.84	126.3570
308.46	132.2113
311.98	139.2682
316.51	121.7676
318.01	137.1731
319.02	148.7375
319.41	149.7436
320.08	131.6997
323.87	165.6614
323.87	165.6614
323.87	165.6614
323.87	165.6614
325.23	162.9832
328.77	129.8316
333.44	118.9646
334.20	131.4097
334.20	131.4097
334.30	131.4221
338.28	128.7696
338.28	128.7696
338.28	128.7696
338.28	128.7696
338.32	128.7736
338.32	128.7736
338.32	128.7736
340.50	124.3496
340.57	130.5753
344.27	124.7480
345.85	140.5283
350.59	0.0000
351.07	118.5979
351.92	118.6810
351.92	118.6810
351.92	118.6810
355.39	0.0000
356.01	91.3288
364.48	103.0590
366.43	123.0710
367.43	100.3234
367.94	0.0000
369.80	111.4600
374.96	107.9193
383.85	117.7266
387.95	114.0621
388.63	113.1117
391.69	108.3143
391.69	108.3143
392.90	125.6385
398.62	113.9705
400.65	109.0490
401.10	103.9875
401.81	106.0836
402.60	111.2487
404.84	121.6565
410.95	96.5323
411.60	126.3745
413.65	107.0120
414.70	98.8564
415.30	96.8385

415.76	96.8715
417.63	0.0000
418.52	109.4565
423.70	86.0256
427.08	117.4020
427.89	115.3901
432.53	84.4792
433.93	86.6500
439.47	95.3698
439.56	96.4241
439.89	92.2526
443.98	82.0014
444.90	73.6369
445.03	73.6433
445.03	73.6433
445.03	73.6433
445.03	73.6433
453.90	101.6089
463.38	102.2563
468.07	80.3498
473.00	88.9721
475.06	80.5046
475.35	94.4762
476.78	94.5648
477.59	86.0132
477.96	88.1848
482.03	89.4945
484.57	92.8815
487.03	86.5369
490.36	0.0000
492.35	86.8298
497.08	77.2922
507.63	0.0000
510.53	0.0000
510.84	70.2700
511.00	70.2764
511.85	102.1743
511.85	102.1743
513.99	265.1180
513.99	265.1180
520.41	70.6797
520.65	65.1686
527.90	82.0938
528.96	0.0000
529.64	82.1796
529.87	0.0000
531.02	73.3557
537.32	66.9360
543.00	76.1140
546.56	0.0000
549.76	80.9077
552.65	83.7454
555.20	83.8680
563.23	74.2865
563.90	79.7543
568.70	67.2468
569.32	59.0887
569.50	59.0951
569.67	63.6477
573.80	70.1741
574.00	70.1817
574.64	77.5002
578.91	82.2546
579.30	0.0000
583.14	91.6089
585.48	68.7946
591.81	59.8282
592.07	67.2024
593.00	69.0784
595.88	70.1089
600.56	84.2600
602.52	0.0000
602.71	77.1566
602.71	77.1566
603.60	71.0177
604.41	83.4060
604.70	75.6952
609.31	80.8361

609.31	80.8361
609.31	80.8361
609.31	80.8361
610.33	68.1753
612.46	68.2523
614.37	80.7422
618.01	74.6748
621.84	73.8889
621.84	73.8889
631.29	64.8543
633.02	68.6745
633.10	68.6781
634.78	71.5617
635.90	76.3132
636.97	64.1020
645.85	77.6498
646.12	82.3951
656.30	76.1543
657.75	98.4366
657.90	0.0000
661.65	98.6283
661.65	98.6283
664.57	0.0000
666.33	47.8345
666.33	47.8345
675.00	68.2144
677.61	52.9093
685.20	71.4508
692.80	76.5563
695.00	83.4280
696.49	88.3407
696.49	88.3407
697.00	88.3629
697.49	85.4691
698.33	96.1915
698.50	91.3402
699.00	91.3631
702.63	78.8623
706.10	85.8172
706.58	0.0000
706.67	88.7672
709.31	67.3912
711.68	66.4876
713.82	73.4052
717.42	73.5278
720.50	68.7251
721.93	0.0000
722.20	88.4290
722.78	83.5391
722.78	83.5391
722.89	83.5432
722.95	83.5453
723.30	77.0061
724.18	72.1195
727.18	71.8915
733.00	69.1199
735.90	59.3247
739.58	56.4517
742.81	55.5434
744.21	64.5096
747.13	70.5580
751.79	79.6680
752.31	77.6934
753.82	76.7500
755.35	72.8111
756.15	65.8534
756.87	53.8972
763.93	89.1086
765.79	66.1337
766.42	67.1554
766.84	67.1668
776.49	75.5054
778.00	62.4586
778.57	55.4203
778.89	50.3894
783.80	67.6657
785.46	61.6493
792.07	70.9468

795.84	55.8339
796.30	52.4601
798.80	69.4561
801.93	64.1197
805.60	61.1616
810.29	59.2390
810.76	60.2719
815.85	60.4015
817.79	47.1309
818.51	49.1941
819.60	49.2164
826.30	54.4945
828.27	0.0000
831.60	54.6136
831.96	55.6519
834.83	66.0359
836.80	0.0000
846.75	50.8040
848.13	57.0571
856.28	0.0000
856.80	45.1107
860.37	48.9977
867.32	49.6558
867.82	52.2791
871.10	48.1596
873.19	54.4857
874.81	46.1334
875.33	0.0000
876.40	47.2104
879.36	52.5171
880.27	40.9786
880.51	45.1857
881.50	47.3049
883.24	58.9094
884.67	59.9947
889.25	46.3934
896.60	47.5829
898.02	56.0731
899.00	57.1522
903.28	60.5776
911.07	46.7844
911.07	46.7844
911.07	46.7844
919.63	38.6687
920.93	45.8912
925.00	44.8926
925.24	44.8967
926.50	37.4319
935.52	43.9969
937.48	67.6543
944.10	58.1304
946.00	56.0168
949.00	57.1574
962.29	55.9907
964.01	48.7958
966.15	48.8342
968.20	48.8705
969.11	48.8859
969.11	48.8859
969.11	48.8859
977.42	50.8480
980.50	49.0858
983.50	45.8626
989.30	39.3917
996.32	83.3681
1001.03	50.5427
1001.68	48.3560
1004.76	74.2632
1021.30	0.0000
1024.50	0.0000
1034.80	47.2460
1036.00	50.9717
1037.82	49.1484
1038.57	51.0164
1038.76	0.0000
1045.16	52.0602
1046.59	53.0154
1048.07	42.8068

1050.47	49.3597
1050.47	49.3597
1062.04	53.2914
1063.62	57.9963
1076.63	44.1543
1077.35	48.8643
1078.86	43.2467
1085.78	43.3459
1099.22	59.6239
1112.02	39.9150
1112.84	44.2030
1115.52	53.8230
1120.29	36.2079
1120.29	36.2079
1120.29	36.2079
1120.29	36.2079
1120.51	29.4044
1121.28	29.4120
1124.00	0.0000
1129.67	43.9617
1131.51	0.0000
1147.95	0.0000
1167.94	58.9969
1173.22	47.4688
1175.09	49.4332
1177.93	45.5963
1189.05	42.8309
1204.90	64.5525
1205.75	0.0000
1213.00	67.6495
1221.42	63.8892
1230.97	73.9258
1235.34	61.1902
1236.41	0.0000
1238.25	71.1182
1246.25	59.4043
1260.41	0.0000
1271.85	42.8880
1274.45	52.9008
1274.54	52.9030
1291.56	41.1235
1298.22	0.0000
1312.09	33.2900
1325.50	29.3634
1325.50	29.3634
1332.49	38.5505
1333.61	42.6221
1360.21	17.3770
1362.66	0.0000
1365.15	22.5174
1368.21	18.4387
1368.53	0.0000
1376.25	21.5580
1384.27	20.0610
1394.10	22.6920
1395.20	22.6982
1407.95	26.9151
1434.06	19.8025
1436.60	18.7727
1457.56	0.0000
1460.81	26.2349
1489.15	9.5120
1509.49	14.8710
1596.49	26.0313
1620.62	13.0894
1678.03	0.0000
1691.02	19.0004
1691.02	19.0004
1706.46	0.0000
1750.46	0.0000
1764.49	5.0684
1764.49	5.0684
1764.49	5.0684
1764.49	5.0684
1770.23	6.7661
1771.40	20.3035
1791.20	0.0000
1808.65	13.6431

1836.01	5.8805

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246837006

Total Uranium Activity	2.0803E+01	ug/g
Total Uranium Counting Unc.	9.1362E+00	ug/g
Total Uranium Tpu	4.6613E-06	ug/g
Total Uranium Mda	3.6866E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 952641                    SAMPLE ID  : G246837006       *
*   ANALYST       : MXR1                      DETECTOR   : GAM02            *
*   SAMPLE DATE   :  8-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 12:13:46.74    SAMPLE ALQT:  120.240 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.868E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.272E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.150E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.518E+00
```

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 16:24:38.00

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246847001.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 14:22:50
Sample ID         : G246847001           Sample quantity  : 1.09860E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.80  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.56*	58	310	0.90	92.68	89	6	8.02E-03	54.2	
2	2	74.77*	691	372	0.96	149.10	143	21	9.60E-02	5.9	1.15E+00
3	2	77.08*	1002	286	0.91	153.72	143	21	1.39E-01	4.1	
4	0	84.06*	166	420	1.24	167.68	163	8	2.31E-02	23.2	
5	4	87.18*	335	261	0.89	173.92	171	21	4.65E-02	9.1	2.62E+00
6	4	89.83	194	340	1.09	179.22	171	21	2.69E-02	17.1	
7	4	92.77*	261	320	1.21	185.09	171	21	3.63E-02	14.3	
8	0	129.29	97	338	1.41	258.12	253	10	1.34E-02	37.0	
9	0	185.88*	128	300	1.14	371.30	367	9	1.77E-02	27.4	
10	0	209.60	107	242	1.04	418.74	414	10	1.49E-02	28.8	
11	5	238.61*	1162	140	0.99	476.76	471	17	1.61E-01	3.4	3.06E+00
12	5	241.40	288	194	1.70	482.33	471	17	4.00E-02	14.6	
13	0	269.99	88	175	0.99	539.50	535	10	1.22E-02	30.2	
14	0	277.41	54	162	1.34	554.34	551	10	7.44E-03	46.4	
15	0	295.12*	315	155	0.96	589.76	585	11	4.37E-02	9.6	
16	0	299.73	66	125	0.84	598.97	596	8	9.13E-03	31.9	
17	0	328.26	84	143	1.10	656.04	652	11	1.16E-02	29.9	
18	0	338.30*	208	133	1.03	676.11	672	9	2.88E-02	12.3	
19	0	351.91*	466	165	1.12	703.34	698	12	6.47E-02	7.3	
20	0	462.58	104	93	1.14	924.66	918	13	1.44E-02	21.7	
21	0	510.79*	131	131	2.09	1021.07	1013	18	1.81E-02	25.1	
22	0	583.03*	332	83	1.32	1165.55	1159	12	4.61E-02	8.0	
23	0	609.20*	331	89	1.49	1217.89	1211	11	4.60E-02	8.0	
24	0	637.79	74	107	8.11	1275.07	1266	22	1.03E-02	37.1	
25	0	726.98	87	81	1.60	1453.45	1446	13	1.20E-02	24.0	
26	0	794.41	59	57	1.47	1588.31	1582	15	8.24E-03	30.5	
27	0	860.72	59	37	1.31	1720.92	1717	9	8.21E-03	22.5	
28	0	911.19*	231	39	1.31	1821.86	1816	11	3.21E-02	8.6	
29	0	969.05*	129	89	1.77	1937.59	1930	12	1.79E-02	17.2	
30	0	1460.57*	1282	21	2.15	2920.67	2912	17	1.78E-01	2.9	
31	0	1764.30*	44	7	1.42	3528.18	3520	13	6.04E-03	20.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 16:24:40

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246847001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 8-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 14:22:50
Sample ID : G246847001 Sample quantity : 109.86 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.80 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.704E+01	3.827E+00	6.327E-01	5.388E-02	58.550
CD-109	+	88.03	*	3.343E+00	7.048E-01	6.793E-01	7.300E-02	4.922
SN-126		64.28		-9.026E-02	2.136E-01	3.493E-01	5.566E-02	-0.258
	+	86.94		1.366E+00	6.231E-01	2.762E-01	1.156E-01	4.946
	+	87.57	*	3.286E-01	6.928E-02	6.663E-02	7.144E-03	4.932
TL-208	+	277.35		5.678E-01	5.326E-01	5.815E-01	8.260E-02	0.976
	+	510.84		7.358E-01	3.817E-01	2.368E-01	3.136E-02	3.107
	+	583.14	*	5.395E-01	1.053E-01	7.177E-02	8.090E-03	7.518
	+	860.37		9.181E-01	4.244E-01	5.484E-01	5.733E-02	1.674
BI-210	+	46.50	*	5.305E-01	5.771E-01	6.466E-01	6.667E-02	0.820
PB-210	+	46.50	*	5.305E-01	5.771E-01	6.466E-01	6.667E-02	0.820
PO-210	+	46.50	*	5.305E-01	5.768E-01	6.466E-01	6.158E-02	0.820
BI-211		72.87		2.360E+00	1.639E+00	2.527E+00	2.551E-01	0.934
	+	351.07	*	3.167E+00	5.722E-01	3.163E-01	3.333E-02	10.010
PB-212	+	74.81		2.276E+00	4.129E-01	2.664E-01	3.678E-02	8.543
	+	77.11		1.970E+00	2.595E-01	1.597E-01	1.636E-02	12.341
	+	87.30		1.520E+00	3.546E-01	3.078E-01	4.510E-02	4.938
	+	238.63	*	1.667E+00	2.211E-01	7.932E-02	9.031E-03	21.016
	+	300.09		1.482E+00	9.622E-01	1.116E+00	1.390E-01	1.328
PO-212	+	74.81		2.276E+00	4.129E-01	2.664E-01	3.678E-02	8.543
	+	77.11		1.970E+00	2.595E-01	1.597E-01	1.636E-02	12.341
	+	87.30		1.520E+00	3.546E-01	3.078E-01	4.510E-02	4.938
		115.19		5.756E-01	2.702E+00	4.617E+00	5.726E-01	0.125
	+	238.63	*	1.667E+00	2.211E-01	7.932E-02	9.031E-03	21.016
	+	300.09		1.482E+00	9.622E-01	1.116E+00	1.390E-01	1.328
BI-214	+	609.31	*	1.017E+00	2.032E-01	1.177E-01	1.421E-02	8.638
		1120.29		7.401E-01	4.516E-01	8.207E-01	8.907E-02	0.902
	+	1764.49		9.997E-01	4.266E-01	3.423E-01	2.820E-02	2.920
PB-214	+	74.81		3.922E+00	6.755E-01	4.591E-01	5.772E-02	8.543
	+	77.11		3.378E+00	5.139E-01	2.737E-01	3.495E-02	12.341
	+	87.30		2.604E+00	5.844E-01	5.273E-01	6.957E-02	4.938
	+	241.98		2.484E+00	7.822E-01	4.785E-01	5.708E-02	5.190
	+	295.21		1.243E+00	2.871E-01	1.837E-01	2.330E-02	6.768
	+	351.92	*	1.101E+00	2.072E-01	1.103E-01	1.295E-02	9.985

Sample ID : G246847001 Acquisition date : 23-FEB-2010 14:22:50

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		3.922E+00	6.755E-01	4.591E-01	5.772E-02	8.543
	+	77.11		3.378E+00	5.139E-01	2.737E-01	3.495E-02	12.341
	+	87.30		2.604E+00	5.844E-01	5.273E-01	6.957E-02	4.938
	+	241.98		2.484E+00	7.822E-01	4.785E-01	5.708E-02	5.190
	+	295.21		1.243E+00	2.871E-01	1.837E-01	2.330E-02	6.768
	+	351.92	*	1.101E+00	2.072E-01	1.103E-01	1.295E-02	9.985
PO-216	+	74.81		2.276E+00	4.129E-01	2.664E-01	3.678E-02	8.543
	+	77.11		1.970E+00	2.595E-01	1.597E-01	1.636E-02	12.341
	+	87.30		1.520E+00	3.546E-01	3.078E-01	4.510E-02	4.938
	+	238.63	*	1.667E+00	2.211E-01	7.932E-02	9.031E-03	21.016
	+	300.09		1.482E+00	9.622E-01	1.116E+00	1.390E-01	1.328
PO-218	+	74.81		3.922E+00	6.755E-01	4.591E-01	5.772E-02	8.543
	+	77.11		3.378E+00	5.139E-01	2.737E-01	3.495E-02	12.341
	+	87.30		2.604E+00	5.844E-01	5.273E-01	6.957E-02	4.938
	+	241.98		2.484E+00	7.822E-01	4.785E-01	5.708E-02	5.190
	+	295.21		1.243E+00	2.871E-01	1.837E-01	2.330E-02	6.768
	+	351.92	*	1.101E+00	2.072E-01	1.103E-01	1.295E-02	9.985
RA-224	+	240.98	*	4.710E+00	1.459E+00	9.039E-01	9.498E-02	5.210
RA-226	+	609.31	*	1.017E+00	2.032E-01	1.177E-01	1.421E-02	8.638
		1120.29		7.401E-01	4.516E-01	8.207E-01	8.907E-02	0.902
	+	1764.49		9.997E-01	4.266E-01	3.423E-01	2.820E-02	2.920
AC-228	+	338.32		1.549E+00	7.497E-01	3.735E-01	1.557E-01	4.146
	+	911.07	*	1.700E+00	3.545E-01	2.429E-01	2.889E-02	7.000
	+	969.11		1.673E+00	6.970E-01	4.348E-01	1.026E-01	3.848
RA-228	+	338.32		1.549E+00	7.497E-01	3.735E-01	1.557E-01	4.146
	+	911.07	*	1.700E+00	3.545E-01	2.429E-01	2.889E-02	7.000
	+	969.11		1.673E+00	6.970E-01	4.348E-01	1.026E-01	3.848
TH-228	+	74.81		2.311E+00	3.602E-01	2.705E-01	2.765E-02	8.543
	+	77.11		2.000E+00	2.634E-01	1.621E-01	1.661E-02	12.341
	+	87.30		1.543E+00	3.253E-01	3.125E-01	3.346E-02	4.938
	+	238.63	*	1.692E+00	2.244E-01	8.053E-02	9.168E-03	21.016
	+	300.09		1.504E+00	1.313E+00	1.133E+00	6.760E-01	1.328
TH-230	+	609.31	*	1.017E+00	2.032E-01	1.177E-01	1.421E-02	8.638
		1120.29		7.401E-01	4.516E-01	8.207E-01	8.907E-02	0.902
	+	1764.49		9.997E-01	4.266E-01	3.423E-01	2.820E-02	2.920
TH-232	+	338.32		1.549E+00	4.141E-01	3.735E-01	3.893E-02	4.146
	+	911.07	*	1.700E+00	3.545E-01	2.429E-01	2.889E-02	7.000
	+	969.11		1.673E+00	6.970E-01	4.348E-01	1.026E-01	3.848
U-234	+	609.31	*	1.017E+00	2.032E-01	1.177E-01	1.421E-02	8.638
		1120.29		7.401E-01	4.516E-01	8.207E-01	8.907E-02	0.902
	+	1764.49		9.997E-01	4.266E-01	3.423E-01	2.820E-02	2.920
NP-237	+	86.50	*	9.650E-01	2.847E-01	2.182E-01	5.069E-02	4.422
		95.87		-3.672E-01	6.702E-01	9.937E-01	2.548E-01	-0.370
AM-243	+	74.67	*	3.690E-01	5.738E-02	4.317E-02	4.385E-03	8.547
	+	86.72		3.619E+01	7.629E+00	7.310E+00	7.806E-01	4.951
		117.66		-3.895E-01	2.858E+00	4.802E+00	6.038E-01	-0.081
		142.18		4.905E+00	1.458E+01	2.470E+01	2.789E+00	0.199
ANH-511	+	511.00	*	1.589E-01	8.137E-02	5.117E-02	5.267E-03	3.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-9.080E-02	3.826E-01	5.926E-01	6.274E-02	-0.153

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	-6.599E-02	5.401E-02	7.635E-02	6.261E-03	-0.864
NA-24		1368.53	*	-8.144E-01	5.401E-02	Half-Life too short		
AL-26		1129.67		-6.980E-01	2.069E+00	3.333E+00	2.846E-01	-0.209
		1808.65	*	1.921E-02	3.706E-02	6.704E-02	5.494E-03	0.286
TI-44		67.85		1.237E-03	2.074E-02	3.268E-02	3.252E-03	0.038
	+	78.38	*	3.636E-01	4.788E-02	4.481E-02	4.614E-03	8.115
SC-46		889.25	*	6.328E-03	4.677E-02	7.711E-02	7.384E-03	0.082
		1120.51		1.297E-01	7.636E-02	1.400E-01	1.204E-02	0.926
V-48		944.10		-9.125E-01	1.090E+00	1.599E+00	1.500E-01	-0.571
		983.50	*	-2.150E-02	8.262E-02	1.292E-01	1.197E-02	-0.166
		1312.09		-5.865E-02	1.026E-01	1.571E-01	1.280E-02	-0.373
CR-51		320.08	*	1.375E-01	3.548E-01	6.115E-01	6.791E-02	0.225
MN-52		744.21		9.760E-02	2.680E-01	4.574E-01	4.942E-02	0.213
		848.13		-1.602E+00	7.576E+00	1.211E+01	1.213E+00	-0.132
		935.52		2.626E-01	2.852E-01	5.038E-01	4.737E-02	0.521
		1246.25		-3.566E-01	9.330E+00	1.532E+01	1.258E+00	-0.023
		1333.61		3.531E+00	6.292E+00	1.095E+01	8.896E-01	0.322
		1434.06	*	-7.573E-02	2.481E-01	3.817E-01	3.145E-02	-0.198
MN-54		834.83	*	1.180E-02	5.433E-02	8.111E-02	8.231E-03	0.145
CO-56		846.75	*	-2.376E-02	4.387E-02	6.754E-02	6.777E-03	-0.352
		977.42		-6.544E-01	3.444E+00	5.433E+00	5.045E-01	-0.120
		1037.82		4.534E-02	3.687E-01	6.253E-01	5.934E-02	0.073
		1175.09		5.361E-01	2.848E+00	4.796E+00	3.948E-01	0.112
		1238.25		1.862E-01	1.186E-01	2.160E-01	1.831E-02	0.862
		1360.21		3.797E-01	1.206E+00	2.049E+00	1.672E-01	0.185
		1771.40		-6.018E-01	3.158E-01	3.049E-01	2.510E-02	-1.974
CO-57		122.06	*	-9.962E-03	2.001E-02	3.293E-02	4.246E-03	-0.303
		136.48		-5.285E-02	1.671E-01	2.754E-01	3.377E-02	-0.192
CO-58		810.76	*	-2.127E-02	4.356E-02	6.786E-02	7.041E-03	-0.313
FE-59		142.65		1.743E-01	2.314E+00	3.831E+00	4.310E-01	0.045
		192.34		2.139E-01	8.403E-01	1.391E+00	1.949E-01	0.154
		1099.22	*	5.968E-02	1.112E-01	1.941E-01	1.828E-02	0.308
		1291.56		1.245E-02	1.575E-01	2.606E-01	2.448E-02	0.048
CO-60		1173.22		-4.132E-02	5.770E-02	8.940E-02	7.358E-03	-0.462
		1332.49	*	6.155E-03	4.855E-02	8.066E-02	6.551E-03	0.076
ZN-65		1115.52	*	-2.155E-01	1.386E-01	2.024E-01	1.749E-02	-1.064
GE-68		1077.35	*	-7.200E-01	1.455E+00	2.312E+00	2.046E-01	-0.311
AS-73		53.44	*	3.365E-02	1.830E-01	2.927E-01	2.810E-02	0.115
AS-74		595.88	*	-2.002E-04	1.021E-01	1.630E-01	1.766E-02	-0.001
		634.78		3.357E-01	4.972E-01	7.754E-01	8.527E-02	0.433
SE-75		66.05		-3.816E+00	2.159E+00	3.071E+00	3.540E-01	-1.242
		96.73		-4.670E-01	5.648E-01	8.113E-01	1.250E-01	-0.576
		121.11		-6.748E-02	1.059E-01	1.726E-01	2.537E-02	-0.391
		136.00		1.622E-02	3.116E-02	5.339E-02	6.334E-03	0.304
		198.60		5.421E-02	1.727E+00	2.766E+00	2.904E-01	0.020
		264.65	*	2.379E-02	4.309E-02	6.794E-02	7.446E-03	0.350
		279.53		-5.949E-02	1.260E-01	1.698E-01	1.937E-02	-0.350
		303.91		1.024E+00	2.037E+00	3.171E+00	4.221E-01	0.323
		400.65		6.573E-02	2.698E-01	4.536E-01	5.247E-02	0.145

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	87.88		7.186E+02	1.515E+02	2.370E+02	2.545E+01	3.033
		200.40		-1.540E+02	1.477E+02	2.253E+02	2.182E+01	-0.683
	+	239.00		2.663E+02	3.324E+01	3.928E+01	4.113E+00	6.781
		249.79		2.958E+01	6.560E+01	1.078E+02	1.150E+01	0.275
		281.68		3.905E+01	1.003E+02	1.458E+02	1.625E+01	0.268
		297.23		1.051E+02	7.099E+01	9.244E+01	1.018E+01	1.137
		303.76		4.690E+01	1.780E+02	2.719E+02	2.976E+01	0.172
		439.47		7.851E+01	1.542E+02	2.621E+02	2.524E+01	0.300
		484.57		-3.022E+01	2.546E+02	4.104E+02	4.133E+01	-0.074
		520.65	*	3.196E-01	1.115E+01	1.807E+01	1.874E+00	0.018
		574.64		-7.883E+01	2.322E+02	3.602E+02	3.863E+01	-0.219
		578.91		2.565E+01	1.018E+02	1.467E+02	1.577E+01	0.175
		585.48		9.811E+02	2.975E+02	4.985E+02	5.376E+01	1.968
		755.35		1.603E+02	1.979E+02	3.475E+02	3.734E+01	0.461
		817.79		-3.318E+01	1.580E+02	2.539E+02	2.615E+01	-0.131
SR-82		698.33		-8.078E+00	3.832E+01	6.266E+01	6.889E+00	-0.129
		776.49	*	-2.032E-01	4.574E-01	7.236E-01	7.679E-02	-0.281
		1395.20		8.370E+00	1.298E+01	2.297E+01	1.884E+00	0.364
RB-83		520.41	*	6.909E-04	7.342E-02	1.188E-01	1.231E-02	0.006
		529.64		-2.700E-02	1.255E-01	1.990E-01	2.076E-02	-0.136
		552.65		-1.100E-02	2.094E-01	3.350E-01	3.548E-02	-0.033
RB-84		881.50	*	2.000E-02	8.136E-02	1.357E-01	1.312E-02	0.147
KR-85		513.99	*	6.761E+00	8.951E+00	1.362E+01	1.405E+00	0.497
SR-85		513.99	*	3.466E-02	4.589E-02	6.980E-02	7.201E-03	0.497
RB-86		1076.63	*	-4.614E-01	9.128E-01	1.447E+00	1.282E-01	-0.319
Y-88		898.02		1.057E-03	4.974E-02	8.101E-02	7.705E-03	0.013
		1836.01	*	-1.226E-02	3.429E-02	5.132E-02	4.194E-03	-0.239
ZR-88		392.90	*	-1.717E-03	3.174E-02	5.241E-02	4.771E-03	-0.033
Y-91		1204.90	*	1.462E+01	2.477E+01	4.284E+01	3.525E+00	0.341
NB-94		702.63	*	9.795E-03	3.803E-02	6.454E-02	7.087E-03	0.152
		871.10		-1.513E-02	3.908E-02	6.105E-02	5.971E-03	-0.248
NB-95		765.79	*	1.052E-02	5.075E-02	8.511E-02	9.091E-03	0.124
NB-95M		235.69	*	1.864E-02	1.206E-01	1.749E-01	2.004E-02	0.107
ZR-95		724.18		3.649E-02	1.347E-01	1.993E-01	2.292E-02	0.183
		756.15	*	9.803E-02	8.565E-02	1.534E-01	1.757E-02	0.639
NB-97		657.90	*	-1.807E-01	8.565E-02	Half-Life too short		
		1024.50		-1.948E+00	8.565E-02	Half-Life too short		
ZR-97		254.15		-5.774E-01	8.565E-02	Half-Life too short		
		355.39		5.092E-01	8.565E-02	Half-Life too short		
		507.63	*	2.760E+00	8.565E-02	Half-Life too short		
		602.52		-7.688E-01	8.565E-02	Half-Life too short		
		1021.30		-2.651E+00	8.565E-02	Half-Life too short		
		1147.95		-1.627E+00	8.565E-02	Half-Life too short		
		1362.66		1.893E+00	8.565E-02	Half-Life too short		
		1750.46		5.044E+00	8.565E-02	Half-Life too short		
MO-99		140.51		1.685E+01	2.156E+01	3.643E+01	1.045E+01	0.462
		181.06		-1.256E+01	1.644E+01	2.254E+01	4.192E+00	-0.557
		366.43		-2.099E+01	8.391E+01	1.374E+02	1.347E+01	-0.153
		739.58	*	1.974E+00	1.195E+01	2.009E+01	3.323E+00	0.098

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-2.651E+01	4.035E+01	6.237E+01	6.613E+00	-0.425
TC-99M		140.51	*	2.342E+10	4.035E+01	Half-Life too short		
RH-101		127.23		8.564E-03	2.840E-02	4.368E-02	5.467E-03	0.196
		198.01	*	1.010E-02	3.168E-02	5.148E-02	4.961E-03	0.196
		325.23		1.716E-02	2.429E-01	3.627E-01	3.864E-02	0.047
RH-102		418.52		5.473E-02	2.897E-01	4.842E-01	4.553E-02	0.113
		475.06	*	-2.452E-02	3.185E-02	4.850E-02	4.842E-03	-0.506
		631.29		-3.462E-02	7.194E-02	9.919E-02	1.090E-02	-0.349
		697.49		1.601E-02	8.540E-02	1.443E-01	1.587E-02	0.111
		766.84		2.619E-02	1.327E-01	2.223E-01	2.373E-02	0.118
		1046.59		1.699E-02	1.430E-01	2.421E-01	2.182E-02	0.070
		1112.84		7.992E-02	2.986E-01	5.081E-01	4.393E-02	0.157
RU-103		497.08	*	1.755E-02	4.370E-02	7.317E-02	1.109E-02	0.240
	+	610.33		1.098E+01	2.636E+00	3.112E+00	5.592E-01	3.528
RH-106	+	511.85		7.939E-01	4.064E-01	4.872E-01	5.018E-02	1.629
		621.84	*	8.056E-03	3.710E-01	6.249E-01	9.354E-02	0.013
		1050.47		3.211E-01	2.943E+00	4.976E+00	4.474E-01	0.065
RU-106	+	511.85		7.939E-01	4.064E-01	4.872E-01	5.018E-02	1.629
		621.84	*	8.056E-03	3.710E-01	6.249E-01	6.843E-02	0.013
		1050.47		3.211E-01	2.943E+00	4.976E+00	4.474E-01	0.065
AG-108M		433.93	*	-2.185E-03	3.196E-02	5.222E-02	5.160E-03	-0.042
		614.37		-7.825E-03	4.538E-02	6.840E-02	7.653E-03	-0.114
		722.95		-1.827E-02	5.780E-02	8.018E-02	8.960E-03	-0.228
AG-110M		657.75	*	-5.403E-02	4.488E-02	6.775E-02	7.634E-03	-0.798
		677.61		-2.003E-02	3.511E-01	5.831E-01	6.554E-02	-0.034
		706.67		-2.583E-03	2.466E-01	4.096E-01	4.570E-02	-0.006
		763.93		-4.493E-02	2.014E-01	3.264E-01	3.555E-02	-0.138
		884.67		-2.876E-03	5.960E-02	9.655E-02	9.538E-03	-0.030
		937.48		-9.113E-02	1.303E-01	1.945E-01	1.884E-02	-0.469
		1384.27		-3.164E-02	1.863E-01	2.964E-01	2.503E-02	-0.107
IN-111		171.28		-3.790E-01	8.786E-01	1.415E+00	1.278E-01	-0.268
		245.39	*	-5.616E-01	1.112E+00	1.504E+00	1.593E-01	-0.373
IN-113M		391.69	*	-1.252E-03	4.721E-02	7.812E-02	7.296E-03	-0.016
SN-113		391.69	*	-1.252E-03	4.721E-02	7.812E-02	7.296E-03	-0.016
IN-114M		190.27	*	-3.267E-02	1.824E-01	2.630E-01	2.489E-02	-0.124
CD-115		260.90		-7.055E+00	1.227E+02	1.948E+02	2.116E+01	-0.036
		492.35		-1.054E+01	3.718E+01	5.888E+01	5.970E+00	-0.179
		527.90	*	7.350E+00	1.197E+01	2.028E+01	2.114E+00	0.362
SN-117M		156.02		-1.266E+00	1.958E+00	3.139E+00	3.130E-01	-0.403
		158.56	*	-1.871E-02	4.554E-02	7.382E-02	7.167E-03	-0.253
SB-122		563.90	*	1.649E+00	2.199E+00	3.752E+00	4.001E-01	0.439
		692.80		-5.405E+00	5.006E+01	8.265E+01	9.101E+00	-0.065
I-123		159.00	*	1.343E+00	5.006E+01	Half-Life too short		
		528.96		-2.869E+02	5.006E+01	Half-Life too short		
TE-123M		159.00	*	6.783E-03	2.383E-02	4.005E-02	3.888E-03	0.169
I-124		602.71	*	-8.639E-02	8.627E-01	1.255E+00	1.364E-01	-0.069
		722.78		-2.384E+00	6.050E+00	8.312E+00	9.065E-01	-0.287
		1325.50		-3.200E+01	4.024E+01	5.879E+01	4.780E+00	-0.544
		1376.25		3.940E+01	3.568E+01	6.575E+01	5.378E+00	0.599

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1509.49		1.002E+01	1.610E+01	2.860E+01	2.372E+00	0.350
		1691.02		4.873E+00	4.563E+00	8.888E+00	7.368E-01	0.548
SB-124		602.71		-5.035E-03	5.028E-02	7.314E-02	7.950E-03	-0.069
		645.85		-1.162E-01	6.437E-01	9.186E-01	1.051E-01	-0.127
		709.31		-8.357E-01	3.277E+00	5.332E+00	5.843E-01	-0.157
		713.82		1.438E+00	1.882E+00	3.303E+00	4.557E-01	0.435
		722.78		-2.014E-01	5.111E-01	7.022E-01	7.762E-02	-0.287
	+	968.20		1.722E+01	6.125E+00	9.023E+00	8.405E-01	1.908
		1045.16		7.585E-01	3.145E+00	5.226E+00	4.712E-01	0.145
		1325.50		-2.887E+00	3.631E+00	5.304E+00	4.313E-01	-0.544
		1368.21		-2.607E+00	2.174E+00	2.887E+00	3.809E-01	-0.903
		1436.60		1.577E+00	3.760E+00	6.541E+00	5.392E-01	0.241
		1691.02	*	9.711E-02	9.097E-02	1.771E-01	1.531E-02	0.548
SB-125		427.89	*	2.175E-02	9.115E-02	1.527E-01	1.475E-02	0.142
	+	463.38		1.127E+00	5.023E-01	6.363E-01	6.661E-02	1.771
		600.56		5.850E-02	2.080E-01	3.396E-01	3.861E-02	0.172
		635.90		4.710E-01	3.356E-01	6.109E-01	7.059E-02	0.771
TE-125M		109.28	*	-3.761E+00	6.608E+00	1.091E+01	1.449E+00	-0.345
I-126		388.63		9.922E-03	2.107E-01	3.506E-01	3.219E-02	0.028
		666.33	*	-2.882E-01	2.316E-01	3.478E-01	3.851E-02	-0.829
		753.82		3.828E-01	1.752E+00	2.948E+00	3.170E-01	0.130
SB-126		223.80		2.850E-01	3.775E+00	6.122E+00	6.230E-01	0.047
	+	278.60		3.751E+00	3.502E+00	4.196E+00	4.680E-01	0.894
	+	296.50		1.237E+01	2.748E+00	3.441E+00	3.794E-01	3.594
		414.70		-2.624E-02	7.871E-02	1.267E-01	1.186E-02	-0.207
		415.30		-2.644E-01	6.536E+00	1.075E+01	1.007E+00	-0.025
		555.20		-5.288E-01	4.331E+00	6.881E+00	7.300E-01	-0.077
		573.80		-5.975E-01	1.153E+00	1.756E+00	1.883E-01	-0.340
		593.00		-6.070E-01	1.033E+00	1.553E+00	1.681E-01	-0.391
		656.30		-2.261E+00	4.034E+00	6.450E+00	7.136E-01	-0.351
		666.33		-1.204E-01	9.677E-02	1.453E-01	1.609E-02	-0.829
		675.00		-3.111E-01	2.255E+00	3.721E+00	4.114E-01	-0.084
		695.00		1.675E-02	8.736E-02	1.477E-01	1.625E-02	0.113
		697.00		1.222E-02	2.971E-01	4.962E-01	5.458E-02	0.025
		720.50	*	4.809E-02	1.956E-01	2.897E-01	3.162E-02	0.166
		856.80		-1.512E-01	6.203E-01	8.448E-01	8.391E-02	-0.179
		989.30		-2.020E-01	1.479E+00	2.345E+00	2.168E-01	-0.086
		1034.80		-8.070E-01	1.040E+01	1.732E+01	1.570E+00	-0.047
		1213.00		5.353E+00	6.840E+00	1.191E+01	9.797E-01	0.450
SB-127		61.10		-6.788E+01	2.345E+01	3.020E+01	3.663E+00	-2.248
		252.40		-7.697E-01	4.329E+00	6.823E+00	2.900E+00	-0.113
		290.80		-1.560E+01	2.131E+01	2.983E+01	3.921E+00	-0.523
		411.60		-3.704E-01	1.280E+01	2.109E+01	3.400E+00	-0.018
		444.90		6.202E-01	1.014E+01	1.670E+01	2.218E+00	0.037
		473.00		-3.423E-01	1.704E+00	2.730E+00	3.767E-01	-0.125
		543.00		-6.228E+00	1.752E+01	2.723E+01	4.250E+00	-0.229
		603.60		-4.886E+00	1.505E+01	2.136E+01	3.022E+00	-0.229
		685.20	*	-9.395E-01	1.543E+00	2.430E+00	3.232E-01	-0.387
		698.50		-2.346E+00	1.678E+01	2.760E+01	4.753E+00	-0.085

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		722.20		-3.862E+00	4.026E+01	5.733E+01	7.456E+00	-0.067
		783.80		5.619E+00	4.789E+00	8.472E+00	1.172E+00	0.663
XE-127		57.60		-1.552E+00	1.726E+00	2.603E+00	2.537E-01	-0.596
		145.22		-1.343E-02	5.826E-01	9.705E-01	1.069E-01	-0.014
		172.10		-3.829E-03	1.050E-01	1.726E-01	1.563E-02	-0.022
		202.84	*	-2.264E-02	4.293E-02	6.774E-02	6.598E-03	-0.334
		374.96		2.420E-01	2.142E-01	3.791E-01	3.630E-02	0.638
I-131		80.18		-1.249E+00	2.804E+00	3.925E+00	4.089E-01	-0.318
		284.30		1.218E-01	1.529E+00	2.432E+00	2.792E-01	0.050
		364.48	*	1.394E-01	1.165E-01	2.078E-01	2.132E-02	0.671
	+	636.97		5.578E+00	4.190E+00	3.361E+00	3.827E-01	1.659
		722.89		-3.700E+00	9.778E+00	1.346E+01	1.474E+00	-0.275
TE-132		49.72		2.547E+00	3.044E+00	5.083E+00	5.888E-01	0.501
		111.76		8.739E+00	2.148E+01	3.704E+01	5.125E+00	0.236
		116.30		-1.646E+00	2.113E+01	3.564E+01	5.029E+00	-0.046
		228.16	*	1.811E-01	6.568E-01	1.074E+00	1.791E-01	0.169
BA-133		53.15		1.611E-01	7.710E-01	1.235E+00	1.185E-01	0.130
		79.62		-3.669E-01	7.817E-01	1.091E+00	1.775E-01	-0.336
		81.00		4.631E-02	6.273E-02	8.299E-02	1.404E-02	0.558
	+	276.40		5.611E-01	5.280E-01	6.212E-01	9.978E-02	0.903
		302.84		6.324E-02	1.378E-01	2.139E-01	3.189E-02	0.296
		356.01	*	1.458E-02	4.548E-02	6.891E-02	9.770E-03	0.212
		383.85		1.792E-01	3.016E-01	5.197E-01	6.806E-02	0.345
I-133	+	510.53		1.594E+00	3.016E-01	Half-Life too short		
		529.87	*	6.762E-05	3.016E-01	Half-Life too short		
		706.58		1.563E-01	3.016E-01	Half-Life too short		
		856.28		6.003E-02	3.016E-01	Half-Life too short		
		875.33		-1.769E-02	3.016E-01	Half-Life too short		
		1236.41		-2.152E-01	3.016E-01	Half-Life too short		
		1298.22		2.198E-01	3.016E-01	Half-Life too short		
CS-134		475.35		-1.394E+00	2.071E+00	3.183E+00	3.179E-01	-0.438
		563.23		1.558E-01	3.882E-01	6.447E-01	6.914E-02	0.242
		569.32		-3.804E-02	2.267E-01	3.482E-01	3.757E-02	-0.109
		604.70		7.629E-03	4.242E-02	6.348E-02	6.916E-03	0.120
	+	795.84	*	1.411E-01	8.729E-02	1.023E-01	1.077E-02	1.379
		801.93		-5.727E-02	5.477E-01	7.843E-01	8.211E-02	-0.073
		1038.57		-1.193E-01	4.609E+00	7.710E+00	6.975E-01	-0.015
		1167.94		1.954E+00	3.007E+00	5.269E+00	4.358E-01	0.371
		1365.15		4.177E-02	1.487E+00	2.337E+00	2.005E-01	0.018
CS-135		268.24	*	1.547E-01	1.703E-01	2.579E-01	3.112E-02	0.600
I-135		288.45		1.498E+09	1.703E-01	Half-Life too short		
		417.63		1.109E+10	1.703E-01	Half-Life too short		
		546.56		6.363E+09	1.703E-01	Half-Life too short		
		836.80		-1.783E+10	1.703E-01	Half-Life too short		
		1038.76		5.458E+08	1.703E-01	Half-Life too short		
		1124.00		-9.123E+10	1.703E-01	Half-Life too short		
		1131.51		1.371E+08	1.703E-01	Half-Life too short		
		1260.41	*	1.562E+09	1.703E-01	Half-Life too short		
		1457.56		9.082E+11	1.703E-01	Half-Life too short		

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		1678.03		-1.345E+09	1.703E-01	Half-Life too short		
		1706.46		6.123E+09	1.703E-01	Half-Life too short		
		1791.20		-6.158E+09	1.703E-01	Half-Life too short		
CS-136		66.91		6.857E-02	3.342E-01	5.301E-01	8.589E-02	0.129
	+	86.29		4.284E+00	9.912E-01	1.371E+00	1.961E-01	3.124
		153.22		7.645E-01	5.726E-01	9.989E-01	1.111E-01	0.765
		163.89		1.200E-01	9.406E-01	1.539E+00	1.558E-01	0.078
		176.55		-1.263E-01	3.293E-01	5.304E-01	5.106E-02	-0.238
		273.65		6.241E-01	5.418E-01	6.945E-01	8.002E-02	0.899
		340.57		1.727E-01	1.408E-01	2.265E-01	2.398E-02	0.763
		818.51		-4.089E-03	9.138E-02	1.492E-01	1.537E-02	-0.027
		1048.07	*	-4.165E-02	1.367E-01	2.228E-01	2.084E-02	-0.187
		1235.34		-4.576E-01	8.005E-01	1.260E+00	1.457E-01	-0.363
BA-137M		661.65	*	-1.865E-03	4.953E-02	8.604E-02	9.531E-03	-0.022
CS-137		661.65	*	-1.972E-03	5.236E-02	9.095E-02	1.009E-02	-0.022
CE-139		165.85	*	9.464E-03	2.562E-02	4.309E-02	3.842E-03	0.220
BA-140		162.64		-2.062E-01	6.613E-01	1.058E+00	1.031E-01	-0.195
		304.84		-1.319E+00	1.292E+00	1.778E+00	5.125E-01	-0.742
		423.70		3.243E-01	1.874E+00	3.121E+00	1.019E+00	0.104
		537.32	*	-2.263E-01	2.966E-01	4.290E-01	1.445E-01	-0.528
LA-140	+	328.77		7.688E-01	4.681E-01	5.643E-01	6.202E-02	1.363
		432.53		-8.255E-01	2.030E+00	3.224E+00	3.204E-01	-0.256
		487.03		-5.073E-02	1.483E-01	2.342E-01	2.471E-02	-0.217
		751.79		-1.930E+00	1.965E+00	2.931E+00	3.375E-01	-0.659
		815.85		2.710E-02	3.725E-01	6.153E-01	6.866E-02	0.044
		867.82		-1.592E-02	1.618E+00	2.565E+00	2.621E-01	-0.006
		919.63		-7.998E-01	2.971E+00	4.664E+00	5.279E-01	-0.171
		925.24		2.062E-01	1.373E+00	2.258E+00	2.241E-01	0.091
		1596.49	*	-4.825E-02	8.729E-02	1.312E-01	1.090E-02	-0.368
CE-141		145.44	*	-9.805E-03	5.284E-02	8.733E-02	9.712E-03	-0.112
CE-143		57.37		-3.395E-04	5.284E-02	Half-Life too short		
		231.56		5.624E-04	5.284E-02	Half-Life too short		
		293.26	*	3.964E-04	5.284E-02	Half-Life too short		
	+	350.59		2.488E-02	5.284E-02	Half-Life too short		
		490.36		-8.330E-04	5.284E-02	Half-Life too short		
		664.57		-1.022E-03	5.284E-02	Half-Life too short		
		721.93		-5.708E-05	5.284E-02	Half-Life too short		
CE-144		80.11		-5.718E-01	1.291E+00	1.808E+00	1.875E-01	-0.316
		133.54	*	1.353E-01	1.846E-01	2.882E-01	5.096E-02	0.469
PM-144		476.78		-2.594E-02	7.884E-02	1.210E-01	1.295E-02	-0.214
		618.01		-7.707E-03	3.527E-02	5.831E-02	6.486E-03	-0.132
		696.49	*	1.985E-03	3.797E-02	6.348E-02	6.985E-03	0.031
		778.57		-1.335E+00	2.746E+00	4.322E+00	4.582E-01	-0.309
PR-144		696.49	*	1.345E-01	2.573E+00	4.302E+00	4.732E-01	0.031
		1489.15		3.333E+00	1.086E+01	1.867E+01	1.546E+00	0.179
PM-146		453.90	*	6.091E-03	4.526E-02	7.485E-02	8.740E-03	0.081
		633.02		-1.098E+00	1.895E+00	2.517E+00	9.562E-01	-0.436
		735.90		-1.973E-01	1.767E-01	2.456E-01	7.209E-02	-0.803
		747.13		3.979E-02	1.027E-01	1.754E-01	2.713E-02	0.227

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	+	91.11		6.597E-01	2.378E-01	3.191E-01	3.663E-02	2.067
		319.41		-4.218E-01	3.173E+00	5.303E+00	5.698E-01	-0.080
		439.89		4.577E+00	6.138E+00	1.060E+01	1.022E+00	0.432
		531.02	*	6.420E-01	6.533E-01	1.124E+00	1.806E-01	0.571
PM-149		285.90	*	-3.174E+01	9.266E+01	1.428E+02	2.436E+01	-0.222
EU-152		121.78		-5.559E-02	5.829E-02	9.316E-02	1.284E-02	-0.597
		244.69		-1.138E-02	3.319E-01	4.688E-01	4.958E-02	-0.024
		344.27	*	-1.855E-02	1.026E-01	1.642E-01	1.763E-02	-0.113
		443.98		1.205E-03	1.002E+00	1.643E+00	1.590E-01	0.001
		778.89		-1.007E-01	3.214E-01	5.149E-01	5.456E-02	-0.195
		867.32		-7.577E-02	1.014E+00	1.544E+00	1.517E-01	-0.049
		964.01		4.002E-01	4.602E-01	7.001E-01	6.531E-02	0.572
		1085.78		-4.514E-01	4.783E-01	7.010E-01	6.173E-02	-0.644
		1112.02		1.551E-01	4.149E-01	7.121E-01	6.160E-02	0.218
		1407.95		-3.824E-02	2.009E-01	3.176E-01	2.609E-02	-0.120
GD-153		69.67		-6.063E-01	8.579E-01	1.198E+00	1.198E-01	-0.506
	+	83.37		2.843E+01	1.350E+01	1.614E+01	1.697E+00	1.761
		97.43	*	-1.041E-02	5.827E-02	8.765E-02	9.871E-03	-0.119
		103.18		-9.577E-02	7.551E-02	1.204E-01	1.397E-02	-0.796
EU-154		123.07		2.342E-02	4.054E-02	6.990E-02	1.035E-02	0.335
		247.94		1.169E-01	3.552E-01	5.797E-01	7.570E-02	0.202
		591.81		-1.854E-01	6.719E-01	1.044E+00	1.396E-01	-0.178
		723.30		-6.458E-02	2.425E-01	3.385E-01	3.938E-02	-0.191
		756.87		1.165E+00	9.396E-01	1.685E+00	2.288E-01	0.691
		873.19		1.802E-01	3.265E-01	5.617E-01	7.342E-02	0.321
		996.32		-7.411E-02	4.558E-01	7.205E-01	1.302E-01	-0.103
		1004.76		1.571E-01	2.629E-01	4.468E-01	5.392E-02	0.352
		1274.45	*	-1.672E-01	1.498E-01	2.139E-01	2.350E-02	-0.782
EU-155		48.70		9.753E-02	3.801E-01	5.748E-01	5.472E-02	0.170
		60.01		5.808E-01	1.629E+00	2.615E+00	2.573E-01	0.222
	+	86.54		3.958E-01	8.358E-02	1.310E-01	1.407E-02	3.022
		105.31	*	9.547E-02	7.942E-02	1.404E-01	1.660E-02	0.680
TB-160	+	86.79		1.057E+00	2.228E-01	3.585E-01	3.830E-02	2.948
		197.04		1.683E-01	5.424E-01	8.815E-01	8.475E-02	0.191
		215.65		1.721E-01	6.677E-01	1.097E+00	1.098E-01	0.157
	+	298.57		2.156E-01	1.394E-01	1.990E-01	2.190E-02	1.083
		879.36	*	-1.837E-02	1.612E-01	2.594E-01	2.514E-02	-0.071
		962.29		6.664E-01	7.678E-01	1.178E+00	1.100E-01	0.566
		966.15		9.567E-01	3.595E-01	6.090E-01	5.677E-02	1.571
		1177.93		-5.217E-02	4.962E-01	8.151E-01	6.709E-02	-0.064
		1271.85		-7.717E-01	8.807E-01	1.308E+00	1.071E-01	-0.590
HO-166M		80.57		-9.826E-02	1.660E-01	2.299E-01	2.389E-02	-0.427
	+	184.41		9.433E-02	5.251E-02	6.101E-02	5.695E-03	1.546
		280.46		-4.448E-02	9.601E-02	1.292E-01	1.441E-02	-0.344
		410.95		3.029E-01	2.538E-01	4.501E-01	4.193E-02	0.673
		711.68	*	3.794E-02	7.261E-02	1.254E-01	1.373E-02	0.303
		752.31		-2.376E-01	3.178E-01	4.881E-01	5.252E-02	-0.487
		810.29		-3.604E-02	6.710E-02	1.041E-01	1.079E-02	-0.346
TM-171		51.35		-3.341E+00	5.613E+00	8.749E+00	8.355E-01	-0.382

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		52.39		-1.066E+00	3.161E+00	4.929E+00	4.718E-01	-0.216
		59.40		4.195E+00	8.471E+00	1.368E+01	1.345E+00	0.307
		66.72	*	3.464E+00	1.197E+01	1.906E+01	1.892E+00	0.182
LU-176	+	88.36		7.794E-01	1.643E-01	2.411E-01	2.595E-02	3.232
		201.83		-2.476E-02	2.591E-02	3.973E-02	3.861E-03	-0.623
		306.84	*	-9.730E-03	2.190E-02	3.591E-02	3.919E-03	-0.271
		401.10		4.071E+00	7.092E+00	1.216E+01	1.119E+00	0.335
LU-177		112.95		-4.684E-01	1.254E+00	2.043E+00	2.502E-01	-0.229
	+	208.36	*	2.702E+00	1.581E+00	1.808E+00	1.782E-01	1.495
LU-177M		52.97		-4.169E-02	3.470E-01	5.475E-01	5.248E-02	-0.076
		54.07		8.429E-02	1.924E-01	3.111E-01	2.991E-02	0.271
		61.30		-1.985E+00	6.102E-01	7.819E-01	7.699E-02	-2.539
		121.62		-3.209E-01	2.984E-01	4.736E-01	6.089E-02	-0.678
		147.16		1.442E-02	5.527E-01	9.219E-01	9.993E-02	0.016
		171.86		-1.615E-01	4.268E-01	6.892E-01	6.235E-02	-0.234
		218.09		-3.605E-01	7.665E-01	1.204E+00	1.211E-01	-0.300
	+	268.79		1.940E+00	1.192E+00	1.400E+00	1.539E-01	1.386
		319.02		4.383E-02	2.439E-01	4.157E-01	4.468E-02	0.105
		367.43		-2.733E-01	8.659E-01	1.410E+00	1.378E-01	-0.194
		413.65	*	-1.200E-01	1.887E-01	2.969E-01	2.775E-02	-0.404
HF-181		56.28		-1.871E-01	2.391E-01	3.665E-01	3.553E-02	-0.510
		57.53		-1.910E-01	1.481E-01	2.182E-01	2.126E-02	-0.875
		65.20		-1.261E+00	4.417E-01	5.859E-01	5.798E-02	-2.152
		133.02		2.590E-02	5.825E-02	9.006E-02	1.086E-02	0.288
		136.25		-8.870E-03	3.658E-01	6.120E-01	7.221E-02	-0.014
		345.85		1.044E-01	2.081E-01	3.354E-01	3.446E-02	0.311
		482.03	*	9.778E-03	5.039E-02	8.318E-02	8.358E-03	0.118
W-181		56.28		-7.353E-02	9.362E-02	1.435E-01	1.391E-02	-0.512
		57.53		-7.482E-02	5.803E-02	8.548E-02	8.331E-03	-0.875
		65.20	*	-4.901E-01	1.717E-01	2.277E-01	2.254E-02	-2.152
TA-182		67.75		-1.717E-02	5.012E-02	7.760E-02	7.721E-03	-0.221
		100.10		-2.126E-02	1.230E-01	2.086E-01	2.382E-02	-0.102
		152.43		-1.169E-01	2.918E-01	4.754E-01	4.912E-02	-0.246
		222.10		-1.720E-01	3.182E-01	4.967E-01	5.038E-02	-0.346
		1001.68		-2.346E-01	2.749E+00	4.385E+00	4.035E-01	-0.054
		1121.28		4.468E-01	2.105E-01	3.934E-01	3.380E-02	1.136
		1189.05		2.091E-03	3.779E-01	6.259E-01	5.152E-02	0.003
		1221.42	*	-1.134E-01	2.573E-01	4.089E-01	3.363E-02	-0.277
		1230.97		4.621E-01	6.278E-01	1.093E+00	8.983E-02	0.423
RE-183		57.98		-1.596E-02	5.770E-02	9.009E-02	8.798E-03	-0.177
		59.32		2.417E-02	3.450E-02	5.615E-02	5.519E-03	0.431
		67.20		2.878E-03	8.737E-02	1.376E-01	1.367E-02	0.021
		162.32	*	-5.613E-02	9.732E-02	1.535E-01	1.429E-02	-0.366
	+	208.81		2.433E+00	1.423E+00	1.664E+00	1.642E-01	1.462
		291.72		-5.663E-01	9.334E-01	1.325E+00	1.466E-01	-0.427
RE-184		57.98		-5.883E-02	2.126E-01	3.320E-01	3.242E-02	-0.177
		59.32		8.901E-02	1.270E-01	2.068E-01	2.032E-02	0.431
		67.20		1.060E-02	3.219E-01	5.069E-01	5.038E-02	0.021
		161.27		-6.059E-02	3.090E-01	5.064E-01	4.771E-02	-0.120

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		216.55		-3.888E-02	2.408E-01	3.861E-01	3.872E-02	-0.101
		252.85	*	1.048E-01	2.229E-01	3.666E-01	3.932E-02	0.286
		318.01		-1.085E-01	4.223E-01	7.004E-01	7.538E-02	-0.155
		792.07		7.609E-01	1.291E+00	1.972E+00	2.072E-01	0.386
		903.28		2.679E-01	1.225E+00	1.979E+00	1.873E-01	0.135
		920.93		-5.394E-01	5.327E-01	7.623E-01	7.191E-02	-0.708
OS-185		59.72		-3.279E-04	9.608E-02	1.520E-01	1.495E-02	-0.002
		61.14		-2.122E-01	6.672E-02	8.616E-02	8.483E-03	-2.463
		69.30		-4.097E-02	1.381E-01	2.152E-01	2.150E-02	-0.190
		592.07		-6.953E-01	2.747E+00	4.278E+00	4.628E-01	-0.163
		646.12	*	-3.116E-03	5.529E-02	8.011E-02	8.840E-03	-0.039
		717.42		4.099E-01	1.059E+00	1.811E+00	1.979E-01	0.226
		874.81		7.336E-02	6.475E-01	1.068E+00	1.040E-01	0.069
		880.27		2.886E-01	8.818E-01	1.484E+00	1.436E-01	0.194
RE-188		155.03	*	1.289E-01	1.497E-01	2.575E-01	2.594E-02	0.500
		477.96		-7.811E-01	3.655E+00	5.669E+00	5.675E-01	-0.138
		633.10		-2.153E+00	3.747E+00	5.105E+00	5.612E-01	-0.422
W-188		63.58		3.069E+01	2.230E+01	3.847E+01	3.797E+00	0.798
		227.08		-3.558E+00	1.254E+01	1.989E+01	2.037E+00	-0.179
		290.67	*	-9.123E+00	7.731E+00	1.035E+01	1.147E+00	-0.881
IR-192	+	295.96		9.480E-01	2.109E-01	2.832E-01	3.137E-02	3.348
		308.46		3.938E-02	8.840E-02	1.533E-01	1.675E-02	0.257
		316.51	*	-2.328E-02	3.225E-02	5.171E-02	5.585E-03	-0.450
		468.07		-2.500E-02	7.959E-02	1.096E-01	1.147E-02	-0.228
		604.41		1.262E-01	5.753E-01	8.639E-01	1.262E-01	0.146
		612.46		6.074E-01	8.629E-01	1.355E+00	1.619E-01	0.448
AU-195		65.12		-2.248E-01	7.933E-02	1.054E-01	1.043E-02	-2.132
		66.83		8.102E-03	4.007E-02	6.357E-02	6.312E-03	0.127
	+	75.70		1.194E+00	1.857E-01	2.739E-01	2.792E-02	4.359
		98.88	*	1.071E-01	1.572E-01	2.698E-01	3.061E-02	0.397
	+	129.76		5.385E+00	4.045E+00	4.187E+00	5.158E-01	1.286
TL-200		367.94	*	-1.793E-04	4.045E+00	Half-Life too short		
		579.30		-2.765E-04	4.045E+00	Half-Life too short		
		828.27		-1.186E-02	4.045E+00	Half-Life too short		
		1205.75		1.722E-04	4.045E+00	Half-Life too short		
TL-201		68.90		1.520E+00	2.156E+00	3.501E+00	3.493E-01	0.434
		70.82		-3.414E-01	1.362E+00	1.951E+00	1.957E-01	-0.175
		80.30		-1.445E+00	3.052E+00	4.263E+00	4.424E-01	-0.339
		135.34		1.684E+01	2.022E+01	3.503E+01	4.160E+00	0.481
		167.43	*	-1.725E+00	6.026E+00	9.798E+00	8.765E-01	-0.176
TL-202		68.90		1.371E-01	1.945E-01	3.158E-01	3.151E-02	0.434
		70.82		-3.071E-02	1.226E-01	1.755E-01	1.760E-02	-0.175
		80.30		-1.300E-01	2.746E-01	3.836E-01	3.982E-02	-0.339
		439.56	*	5.983E-02	7.339E-02	1.273E-01	1.226E-02	0.470
HG-203		70.83		-1.349E-01	5.318E-01	7.610E-01	1.107E-01	-0.177
		72.87		4.692E-01	3.293E-01	5.025E-01	7.141E-02	0.934
	+	82.60		2.113E+00	1.029E+00	1.038E+00	1.555E-01	2.036
		279.20	*	1.099E-02	4.620E-02	6.636E-02	7.533E-03	0.166
BI-207		72.80		1.065E-01	9.408E-02	1.436E-01	1.449E-02	0.742

---- Non-Identified Nuclides ----

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	+	74.97		6.623E-01	1.030E-01	1.424E-01	1.448E-02	4.650
	+	84.90		3.677E-01	1.747E-01	2.078E-01	2.201E-02	1.769
		569.67		-2.092E-03	3.565E-02	5.534E-02	5.919E-03	-0.038
		1063.62	*	8.290E-03	6.507E-02	1.101E-01	9.827E-03	0.075
		1770.23		-2.531E+00	8.577E-01	6.697E-01	5.514E-02	-3.779
TL-207		81.07		1.020E-01	1.379E-01	1.833E-01	1.909E-02	0.556
	+	83.78		2.424E-01	1.152E-01	1.422E-01	1.498E-02	1.705
		94.90		2.780E-01	1.608E-01	2.658E-01	2.955E-02	1.046
		122.32		7.607E-02	1.385E+00	2.343E+00	3.118E-01	0.032
		144.24		-5.606E-02	5.853E-01	9.608E-01	1.145E-01	-0.058
		154.21		4.355E-01	3.463E-01	6.028E-01	6.567E-02	0.722
	+	269.46		4.542E-01	2.793E-01	3.402E-01	3.792E-02	1.335
		323.87	*	1.914E-02	7.271E-01	1.082E+00	2.033E-01	0.018
	+	338.28		6.467E+00	1.820E+00	2.619E+00	3.572E-01	2.469
		445.03		6.743E-01	2.340E+00	3.920E+00	5.046E-01	0.172
PO-209		260.50		-5.241E+00	9.474E+00	1.452E+01	1.577E+00	-0.361
		262.80		-1.012E+00	2.580E+01	4.100E+01	4.467E+00	-0.025
		896.60	*	1.787E+00	8.656E+00	1.437E+01	1.363E+00	0.124
PB-211		404.84	*	1.239E+00	1.275E+00	1.801E+00	1.130E+00	0.688
		427.08		3.451E-01	2.031E+00	3.367E+00	2.097E+00	0.102
		831.96		1.729E+00	1.877E+00	2.737E+00	1.722E+00	0.632
BI-212	+	727.18	*	1.225E+00	6.051E-01	7.790E-01	9.360E-02	1.572
		785.46		2.461E+00	2.293E+00	4.058E+00	4.282E-01	0.607
		1620.62		6.903E-01	1.333E+00	2.413E+00	2.006E-01	0.286
PO-215		81.07		1.020E-01	1.379E-01	1.833E-01	1.909E-02	0.556
	+	83.78		2.424E-01	1.152E-01	1.422E-01	1.498E-02	1.705
		94.90		2.780E-01	1.608E-01	2.658E-01	2.955E-02	1.046
		122.32		7.607E-02	1.385E+00	2.343E+00	3.118E-01	0.032
		144.24		-5.606E-02	5.853E-01	9.608E-01	1.145E-01	-0.058
		154.21		4.355E-01	3.463E-01	6.028E-01	6.567E-02	0.722
	+	269.46		4.542E-01	2.793E-01	3.402E-01	3.792E-02	1.335
		323.87	*	1.914E-02	7.271E-01	1.082E+00	2.033E-01	0.018
	+	338.28		6.467E+00	1.820E+00	2.619E+00	3.572E-01	2.469
		445.03		6.743E-01	2.340E+00	3.920E+00	5.046E-01	0.172
RN-219	+	271.23		5.827E-01	3.597E-01	4.341E-01	5.384E-02	1.342
		401.81	*	3.262E-02	4.498E-01	7.475E-01	1.149E-01	0.044
RN-220		549.76	*	1.016E+01	2.847E+01	4.722E+01	4.993E+00	0.215
RA-223		81.07		1.020E-01	1.379E-01	1.833E-01	1.909E-02	0.556
	+	83.78		2.424E-01	1.152E-01	1.422E-01	1.498E-02	1.705
		94.90		2.780E-01	1.608E-01	2.658E-01	2.955E-02	1.046
		122.32		7.607E-02	1.385E+00	2.343E+00	3.118E-01	0.032
		144.24		-5.606E-02	5.853E-01	9.608E-01	1.145E-01	-0.058
		154.21		4.355E-01	3.463E-01	6.028E-01	6.567E-02	0.722
	+	269.46		4.542E-01	2.793E-01	3.402E-01	3.792E-02	1.335
		323.87	*	1.914E-02	7.271E-01	1.082E+00	2.033E-01	0.018
	+	338.28		6.467E+00	1.820E+00	2.619E+00	3.572E-01	2.469
		445.03		6.743E-01	2.340E+00	3.920E+00	5.046E-01	0.172
AC-227		79.80		-4.288E-01	9.978E-01	1.394E+00	3.102E-01	-0.308
		236.00		1.697E-01	2.306E-01	3.471E-01	4.710E-02	0.489

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		256.20	*	-1.385E-01	3.798E-01	5.802E-01	9.666E-02	-0.239
		286.10		-5.714E-01	1.559E+00	2.400E+00	3.588E-01	-0.238
	+	299.80		2.746E+00	1.824E+00	2.598E+00	4.876E-01	1.057
		304.40		-8.170E-01	1.895E+00	2.713E+00	5.325E-01	-0.301
		334.20		-1.390E+00	3.587E+00	3.617E+00	7.349E-01	-0.384
TH-227		79.80		-4.288E-01	9.980E-01	1.394E+00	3.139E-01	-0.308
	+	94.00		6.902E+00	2.526E+00	2.750E+00	6.285E-01	2.510
		236.00		1.697E-01	2.305E-01	3.471E-01	4.347E-02	0.489
		256.20	*	-1.385E-01	3.801E-01	5.802E-01	1.113E-01	-0.239
		286.10		-5.714E-01	1.660E+00	2.400E+00	2.414E+00	-0.238
	+	299.80		2.746E+00	1.824E+00	2.598E+00	4.876E-01	1.057
		304.40		-8.170E-01	1.895E+00	2.713E+00	5.325E-01	-0.301
		334.20		-1.390E+00	3.587E+00	3.617E+00	7.349E-01	-0.384
TH-229	+	85.43		3.629E-01	1.724E-01	1.983E-01	2.105E-02	1.830
	+	88.47		4.487E-01	9.458E-02	1.360E-01	1.464E-02	3.299
		100.00		-1.762E-02	1.278E-01	2.170E-01	2.477E-02	-0.081
		193.63	*	-1.705E-01	4.613E-01	7.379E-01	7.039E-02	-0.231
	+	210.97		1.906E+00	1.115E+00	1.172E+00	1.162E-01	1.626
PA-231		283.67	*	1.026E+00	1.646E+00	2.579E+00	4.317E-01	0.398
		301.29		1.012E+00	6.297E-01	1.028E+00	1.440E-01	0.985
TH-231		81.07		1.020E-01	1.379E-01	1.833E-01	1.909E-02	0.556
	+	83.78		2.424E-01	1.152E-01	1.422E-01	1.498E-02	1.705
		94.90		2.780E-01	1.608E-01	2.658E-01	2.955E-02	1.046
		122.32		7.607E-02	1.385E+00	2.343E+00	3.118E-01	0.032
		144.24		-5.606E-02	5.853E-01	9.608E-01	1.145E-01	-0.058
		154.21		4.355E-01	3.463E-01	6.028E-01	6.567E-02	0.722
	+	269.46		4.542E-01	2.793E-01	3.402E-01	3.792E-02	1.335
		323.87	*	1.914E-02	7.271E-01	1.082E+00	2.033E-01	0.018
	+	338.28		6.467E+00	1.820E+00	2.619E+00	3.572E-01	2.469
		445.03		6.743E-01	2.340E+00	3.920E+00	5.046E-01	0.172
U-231	+	84.21		1.041E+01	4.944E+00	6.105E+00	6.445E-01	1.705
	+	92.29		6.796E+00	2.084E+00	2.960E+00	3.248E-01	2.296
		95.87	*	-4.148E-01	7.511E-01	1.123E+00	1.254E-01	-0.370
		108.00		-1.112E+00	1.499E+00	2.458E+00	2.930E-01	-0.452
PA-233	+	75.28		1.933E+01	3.880E+00	4.135E+00	6.729E-01	4.674
	+	86.59		6.433E+00	2.123E+00	2.142E+00	5.902E-01	3.003
	+	300.12		7.657E-01	5.037E-01	7.236E-01	1.184E-01	1.058
		311.98	*	2.191E-02	6.080E-02	1.048E-01	1.157E-02	0.209
		340.50		9.764E-01	7.261E-01	1.125E+00	2.759E-01	0.868
		398.62		-1.219E+00	2.189E+00	3.441E+00	9.226E-01	-0.354
		415.76		1.062E+00	1.733E+00	2.955E+00	6.461E-01	0.359
PA-234		63.00		1.031E+00	6.511E-01	1.107E+00	1.796E-01	0.931
		94.67		2.549E-01	1.225E-01	2.000E-01	2.849E-02	1.274
		98.44		5.698E-02	7.284E-02	1.094E-01	6.153E-02	0.521
		99.86		-2.947E-02	3.238E-01	5.512E-01	6.286E-02	-0.053
		111.00		3.584E-02	1.337E-01	2.293E-01	3.391E-02	0.156
		131.20		7.862E-03	9.097E-02	1.380E-01	1.684E-02	0.057
		152.70		1.237E-01	2.795E-01	4.727E-01	8.488E-02	0.262
	+	186.00		3.396E+00	2.147E+00	2.453E+00	7.710E-01	1.384

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		226.40		4.069E-02	3.888E-01	6.307E-01	9.022E-02	0.065
		227.20		-1.216E-01	4.237E-01	6.719E-01	6.882E-02	-0.181
		248.90		7.897E-02	8.128E-01	1.308E+00	3.045E-01	0.060
	+	293.70		5.969E+00	1.600E+00	1.630E+00	3.038E-01	3.661
		369.80		-4.574E-01	8.162E-01	1.293E+00	2.876E-01	-0.354
		568.70		-1.629E-01	1.143E+00	1.759E+00	1.880E-01	-0.093
		569.50		-3.512E-02	3.150E-01	4.866E-01	5.204E-02	-0.072
		574.00		-7.778E-01	1.664E+00	2.548E+00	2.732E-01	-0.305
		699.00		-2.149E-01	7.962E-01	1.293E+00	2.621E-01	-0.166
		706.10		7.670E-01	1.243E+00	2.085E+00	9.406E-01	0.368
		733.00		5.225E-01	4.509E-01	7.435E-01	1.722E-01	0.703
		742.81		-2.424E-02	1.505E+00	2.486E+00	1.679E+00	-0.010
		796.30		2.266E+00	1.255E+00	1.953E+00	5.410E-01	1.160
		805.60		4.454E-01	1.189E+00	2.005E+00	6.255E-01	0.222
		819.60		-1.201E-01	1.556E+00	2.532E+00	9.733E-01	-0.047
		826.30		-4.403E-01	1.004E+00	1.544E+00	6.960E-01	-0.285
		831.60		7.986E-01	8.200E-01	1.392E+00	4.222E-01	0.574
		876.40		-3.759E-01	1.034E+00	1.497E+00	1.541E+00	-0.251
		880.51		1.775E-01	3.162E-01	5.440E-01	5.264E-02	0.326
		883.24		-8.710E-02	3.500E-01	5.475E-01	3.688E-01	-0.159
		899.00		-5.886E-01	1.167E+00	1.649E+00	7.237E-01	-0.357
		925.00		4.539E-01	1.408E+00	2.356E+00	2.220E-01	0.193
		926.50		1.771E-01	2.119E-01	3.642E-01	9.311E-02	0.486
		946.00	*	-1.976E-02	3.704E-01	5.957E-01	1.139E-01	-0.033
		949.00		4.640E-01	5.677E-01	9.855E-01	9.233E-02	0.471
		980.50		2.048E-01	8.367E-01	1.384E+00	1.284E-01	0.148
		1394.10		6.216E-01	1.447E+00	2.404E+00	1.563E+00	0.259
PA-234M		766.42		4.091E+00	1.380E+01	2.303E+01	1.177E+01	0.178
		1001.03	*	-1.030E+00	6.143E+00	9.722E+00	1.018E+00	-0.106
TH-234		63.29	*	8.435E-01	5.669E-01	9.544E-01	1.777E-01	0.884
	+	92.38		1.786E+00	6.168E-01	7.857E-01	1.518E-01	2.273
U-235	+	89.95		2.630E+00	1.224E+00	1.296E+00	4.090E-01	2.029
	+	93.35		2.147E+00	8.725E-01	9.684E-01	2.795E-01	2.217
		105.00		9.851E-01	8.294E-01	1.382E+00	4.267E-01	0.713
		143.76	*	-8.958E-02	1.834E-01	2.946E-01	5.562E-02	-0.304
		163.35		-6.733E-02	4.226E-01	6.819E-01	1.319E-01	-0.099
	+	185.71		1.258E-01	7.002E-02	9.117E-02	8.537E-03	1.379
		205.31		4.720E-01	5.330E-01	8.097E-01	1.590E-01	0.583
NP-236		94.67		1.954E-01	9.142E-02	1.520E-01	1.687E-02	1.286
		98.44		4.307E-02	4.968E-02	8.267E-02	9.359E-03	0.521
		111.00		2.711E-02	1.011E-01	1.735E-01	2.102E-02	0.156
		160.31	*	4.848E-02	6.639E-02	1.137E-01	1.083E-02	0.426
U-238		63.29	*	8.435E-01	5.669E-01	9.544E-01	1.777E-01	0.884
	+	92.38		1.786E+00	5.476E-01	7.857E-01	8.624E-02	2.273
NP-239		99.55		4.423E-02	1.070E-01	1.856E-01	2.114E-02	0.238
		117.00	*	-9.750E-02	1.467E-01	2.399E-01	3.005E-02	-0.406
	+	209.75		1.920E+00	1.123E+00	1.337E+00	1.322E-01	1.435
		228.18		6.040E-02	2.156E-01	3.529E-01	3.622E-02	0.171
	+	277.60		2.739E-01	2.557E-01	3.101E-01	3.453E-02	0.883

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-8.541E-01	2.026E+00	2.035E+00	2.137E-01	-0.420
AM-241		59.54	*	2.096E-02	4.937E-02	7.949E-02	8.259E-03	0.264
CM-243		99.55		4.552E-02	1.101E-01	1.910E-01	2.175E-02	0.238
		103.76	*	-7.571E-04	6.774E-02	1.154E-01	1.344E-02	-0.007
		117.00		-1.003E-01	1.509E-01	2.468E-01	3.092E-02	-0.406
	+	209.75		1.892E+00	1.107E+00	1.318E+00	1.304E-01	1.435
		228.18		6.103E-02	2.178E-01	3.566E-01	3.660E-02	0.171
	+	277.60		2.761E-01	2.578E-01	3.126E-01	3.481E-02	0.883
AM-246		798.80		-2.899E-01	1.901E-01	2.067E-01	2.161E-02	-1.403
		1036.00		-1.153E-01	3.461E-01	5.615E-01	5.087E-02	-0.205
		1062.04		-4.637E-02	2.881E-01	4.752E-01	4.245E-02	-0.098
		1078.86	*	8.126E-02	1.641E-01	2.869E-01	2.537E-02	0.283
CM-247	+	278.00		1.136E+00	1.061E+00	1.306E+00	1.455E-01	0.870
		287.40		4.940E-01	1.221E+00	1.982E+00	2.201E-01	0.249
		402.60	*	-9.024E-03	4.097E-02	6.677E-02	6.155E-03	-0.135
CF-249		252.85		3.932E-01	8.364E-01	1.376E+00	1.475E-01	0.286
		333.44		-3.034E-03	2.453E-01	2.635E-01	2.771E-02	-0.012
		387.95	*	-1.115E-02	4.181E-02	6.810E-02	6.267E-03	-0.164
CF-251		176.60	*	-4.361E-02	1.137E-01	1.831E-01	1.677E-02	-0.238
		227.00		-1.019E-01	3.766E-01	5.978E-01	6.121E-02	-0.171
		285.00		-2.116E+00	1.893E+00	2.745E+00	3.053E-01	-0.771

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246847001      *
* Acquisition date : 23-FEB-2010 14:22:50 Detector SN#     :               *
* Detector ID      : GAM25                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.80     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  8-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G246847001           Analyst initials: MXR1            *
* Batch Number     : 952641               Sample Quantity : 1.0986E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.704E+01	3.750E+00	6.291E-01	0.000E+00
CD-109	3.343E+00	6.907E-01	6.892E-01	0.000E+00
SN-126	3.286E-01	6.789E-02	6.761E-02	0.000E+00
TL-208	5.395E-01	1.031E-01	7.184E-02	0.000E+00
BI-210	5.305E-01	5.656E-01	6.589E-01	0.000E+00
PB-210	5.305E-01	5.656E-01	6.589E-01	0.000E+00
PO-210	5.305E-01	5.652E-01	6.589E-01	0.000E+00
BI-211	3.167E+00	5.608E-01	3.178E-01	0.000E+00
PB-212	1.667E+00	2.166E-01	7.992E-02	0.000E+00
PO-212	1.667E+00	2.166E-01	7.992E-02	0.000E+00
BI-214	1.017E+00	1.991E-01	1.178E-01	0.000E+00
PB-214	1.101E+00	2.030E-01	1.108E-01	0.000E+00
PO-214	1.101E+00	2.030E-01	1.108E-01	0.000E+00
PO-216	1.667E+00	2.166E-01	7.992E-02	0.000E+00
PO-218	1.101E+00	2.030E-01	1.108E-01	0.000E+00
RA-224	4.710E+00	1.430E+00	9.106E-01	0.000E+00
RA-226	1.017E+00	1.991E-01	1.178E-01	0.000E+00
AC-228	1.700E+00	3.475E-01	2.424E-01	0.000E+00
RA-228	1.700E+00	3.475E-01	2.424E-01	0.000E+00
TH-228	1.692E+00	2.199E-01	8.113E-02	0.000E+00
TH-230	1.017E+00	1.991E-01	1.178E-01	0.000E+00
TH-232	1.700E+00	3.475E-01	2.424E-01	0.000E+00
U-234	1.017E+00	1.991E-01	1.178E-01	0.000E+00
NP-237	9.650E-01	2.790E-01	2.214E-01	0.000E+00
AM-243	3.690E-01	5.623E-02	4.385E-02	0.000E+00
ANH-511	1.589E-01	7.975E-02	5.127E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-9.080E-02	3.750E-01	5.941E-01	0.000E+00	NOT IDENT.

NA-22	-6.599E-02	5.293E-02	7.600E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.636E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.921E-02	3.632E-02	6.656E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.692E-02	4.550E-02	0.000E+00	FAIL ABUN
SC-46	6.328E-03	4.583E-02	7.695E-02	0.000E+00	NOT IDENT.
V-48	-2.150E-02	8.096E-02	1.288E-01	0.000E+00	NOT IDENT.
CR-51	1.375E-01	3.477E-01	6.148E-01	0.000E+00	NOT IDENT.
MN-52	-7.573E-02	2.431E-01	3.796E-01	0.000E+00	NOT IDENT.
MN-54	1.180E-02	5.325E-02	8.099E-02	0.000E+00	NOT IDENT.
CO-56	-2.376E-02	4.300E-02	6.743E-02	0.000E+00	NOT IDENT.
CO-57	-9.962E-03	1.961E-02	3.333E-02	0.000E+00	NOT IDENT.
CO-58	-2.127E-02	4.269E-02	6.777E-02	0.000E+00	NOT IDENT.
FE-59	5.968E-02	1.089E-01	1.934E-01	0.000E+00	NOT IDENT.
CO-60	6.155E-03	4.758E-02	8.026E-02	0.000E+00	NOT IDENT.
ZN-65	-2.155E-01	1.358E-01	2.017E-01	0.000E+00	NOT IDENT.
GE-68	-7.200E-01	1.426E+00	2.304E+00	0.000E+00	NOT IDENT.
AS-73	3.365E-02	1.793E-01	2.981E-01	0.000E+00	NOT IDENT.
AS-74	-2.002E-04	1.001E-01	1.631E-01	0.000E+00	NOT IDENT.
SE-75	2.379E-02	4.223E-02	6.840E-02	0.000E+00	NOT IDENT.
BR-77	3.196E-01	1.093E+01	1.811E+01	0.000E+00	FAIL ABUN
SR-82	-2.032E-01	4.483E-01	7.229E-01	0.000E+00	NOT IDENT.
RB-83	6.909E-04	7.195E-02	1.190E-01	0.000E+00	NOT IDENT.
RB-84	2.000E-02	7.973E-02	1.355E-01	0.000E+00	NOT IDENT.
KR-85	6.761E+00	8.772E+00	1.364E+01	0.000E+00	NOT IDENT.
SR-85	3.466E-02	4.497E-02	6.993E-02	0.000E+00	NOT IDENT.
RB-86	-4.614E-01	8.946E-01	1.443E+00	0.000E+00	NOT IDENT.
Y-88	-1.226E-02	3.360E-02	5.094E-02	0.000E+00	NOT IDENT.
ZR-88	-1.717E-03	3.111E-02	5.262E-02	0.000E+00	NOT IDENT.
Y-91	1.462E+01	2.427E+01	4.266E+01	0.000E+00	NOT IDENT.
NB-94	9.795E-03	3.727E-02	6.452E-02	0.000E+00	NOT IDENT.
NB-95	1.052E-02	4.973E-02	8.503E-02	0.000E+00	NOT IDENT.
NB-95M	1.864E-02	1.182E-01	1.762E-01	0.000E+00	NOT IDENT.
ZR-95	9.803E-02	8.394E-02	1.533E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.235E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.103E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.974E+00	1.171E+01	2.008E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.945E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.010E-02	3.104E-02	5.194E-02	0.000E+00	NOT IDENT.
RH-102	-2.452E-02	3.121E-02	4.862E-02	0.000E+00	NOT IDENT.
RU-103	1.755E-02	4.282E-02	7.333E-02	0.000E+00	FAIL ABUN
RH-106	8.056E-03	3.636E-01	6.253E-01	0.000E+00	FAIL ABUN
RU-106	8.056E-03	3.636E-01	6.253E-01	0.000E+00	FAIL ABUN
AG-108M	-2.185E-03	3.132E-02	5.239E-02	0.000E+00	NOT IDENT.
AG-110M	-5.403E-02	4.399E-02	6.776E-02	0.000E+00	NOT IDENT.
IN-111	-5.616E-01	1.090E+00	1.515E+00	0.000E+00	NOT IDENT.
IN-113M	-1.252E-03	4.626E-02	7.842E-02	0.000E+00	NOT IDENT.
SN-113	-1.252E-03	4.626E-02	7.842E-02	0.000E+00	NOT IDENT.
IN-114M	-3.267E-02	1.787E-01	2.654E-01	0.000E+00	NOT IDENT.
CD-115	7.350E+00	1.173E+01	2.032E+01	0.000E+00	NOT IDENT.
SN-117M	-1.871E-02	4.463E-02	7.459E-02	0.000E+00	NOT IDENT.
SB-122	1.649E+00	2.155E+00	3.757E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.624E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	6.783E-03	2.336E-02	4.046E-02	0.000E+00	NOT IDENT.
I-124	-8.639E-02	8.455E-01	1.256E+00	0.000E+00	NOT IDENT.
SB-124	9.711E-02	8.915E-02	1.759E-01	0.000E+00	FAIL ABUN
SB-125	2.175E-02	8.933E-02	1.532E-01	0.000E+00	FAIL ABUN
TE-125M	-3.761E+00	6.476E+00	1.105E+01	0.000E+00	NOT IDENT.
I-126	-2.882E-01	2.270E-01	3.479E-01	0.000E+00	NOT IDENT.
SB-126	4.809E-02	1.917E-01	2.896E-01	0.000E+00	FAIL ABUN
SB-127	-9.395E-01	1.512E+00	2.430E+00	0.000E+00	NOT IDENT.
XE-127	-2.264E-02	4.207E-02	6.832E-02	0.000E+00	NOT IDENT.
I-131	1.394E-01	1.141E-01	2.087E-01	0.000E+00	FAIL ABUN
TE-132	1.811E-01	6.436E-01	1.083E+00	0.000E+00	NOT IDENT.
BA-133	1.458E-02	4.457E-02	6.923E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.929E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.555E-02	1.022E-01	0.000E+00	FAIL ABUN
CS-135	1.547E-01	1.669E-01	2.596E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.567E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.165E-02	1.339E-01	2.220E-01	0.000E+00	FAIL ABUN
BA-137M	-1.865E-03	4.854E-02	8.605E-02	0.000E+00	NOT IDENT.
CS-137	-1.972E-03	5.131E-02	9.096E-02	0.000E+00	NOT IDENT.
CE-139	9.464E-03	2.511E-02	4.352E-02	0.000E+00	NOT IDENT.
BA-140	-2.263E-01	2.906E-01	4.297E-01	0.000E+00	NOT IDENT.
LA-140	-4.825E-02	8.554E-02	1.303E-01	0.000E+00	FAIL ABUN
CE-141	-9.805E-03	5.178E-02	8.829E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.663E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.353E-01	1.809E-01	2.916E-01	0.000E+00	NOT IDENT.
PM-144	1.985E-03	3.721E-02	6.347E-02	0.000E+00	NOT IDENT.

PR-144	1.345E-01	2.522E+00	4.301E+00	0.000E+00	NOT IDENT.
PM-146	6.091E-03	4.435E-02	7.507E-02	0.000E+00	NOT IDENT.
ND-147	6.420E-01	6.402E-01	1.126E+00	0.000E+00	FAIL ABUN
PM-149	-3.174E+01	9.081E+01	1.437E+02	0.000E+00	NOT IDENT.
EU-152	-1.855E-02	1.005E-01	1.650E-01	0.000E+00	NOT IDENT.
GD-153	-1.041E-02	5.711E-02	8.887E-02	0.000E+00	FAIL ABUN
EU-154	-1.672E-01	1.468E-01	2.129E-01	0.000E+00	NOT IDENT.
EU-155	9.547E-02	7.783E-02	1.423E-01	0.000E+00	FAIL ABUN
TB-160	-1.837E-02	1.580E-01	2.589E-01	0.000E+00	FAIL ABUN
HO-166M	3.794E-02	7.115E-02	1.253E-01	0.000E+00	FAIL ABUN
TM-171	3.464E+00	1.173E+01	1.938E+01	0.000E+00	NOT IDENT.
LU-176	-9.730E-03	2.146E-02	3.612E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.549E+00	1.823E+00	0.000E+00	FAIL ABUN
LU-177M	-1.200E-01	1.849E-01	2.979E-01	0.000E+00	FAIL ABUN
HF-181	9.778E-03	4.938E-02	8.339E-02	0.000E+00	NOT IDENT.
W-181	-4.901E-01	1.683E-01	2.316E-01	0.000E+00	NOT IDENT.
TA-182	-1.134E-01	2.521E-01	4.071E-01	0.000E+00	NOT IDENT.
RE-183	-5.613E-02	9.537E-02	1.551E-01	0.000E+00	FAIL ABUN
RE-184	1.048E-01	2.184E-01	3.692E-01	0.000E+00	NOT IDENT.
OS-185	-3.116E-03	5.418E-02	8.014E-02	0.000E+00	NOT IDENT.
RE-188	1.289E-01	1.467E-01	2.602E-01	0.000E+00	NOT IDENT.
W-188	-9.123E+00	7.577E+00	1.042E+01	0.000E+00	NOT IDENT.
IR-192	-2.328E-02	3.160E-02	5.199E-02	0.000E+00	FAIL ABUN
AU-195	1.071E-01	1.541E-01	2.735E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.239E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.725E+00	5.905E+00	9.897E+00	0.000E+00	NOT IDENT.
TL-202	5.983E-02	7.193E-02	1.277E-01	0.000E+00	NOT IDENT.
HG-203	1.099E-02	4.528E-02	6.679E-02	0.000E+00	FAIL ABUN
BI-207	8.290E-03	6.377E-02	1.097E-01	0.000E+00	FAIL ABUN
TL-207	1.914E-02	7.125E-01	1.088E+00	0.000E+00	FAIL ABUN
PO-209	1.787E+00	8.483E+00	1.434E+01	0.000E+00	NOT IDENT.
PB-211	1.239E+00	1.249E+00	1.807E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.930E-01	7.786E-01	0.000E+00	FAIL ABUN
PO-215	1.914E-02	7.125E-01	1.088E+00	0.000E+00	FAIL ABUN
RN-219	3.262E-02	4.408E-01	7.503E-01	0.000E+00	FAIL ABUN
RN-220	1.016E+01	2.790E+01	4.729E+01	0.000E+00	NOT IDENT.
RA-223	1.914E-02	7.125E-01	1.088E+00	0.000E+00	FAIL ABUN
AC-227	-1.385E-01	3.723E-01	5.842E-01	0.000E+00	FAIL ABUN
TH-227	-1.385E-01	3.725E-01	5.842E-01	0.000E+00	FAIL ABUN
TH-229	-1.705E-01	4.521E-01	7.446E-01	0.000E+00	FAIL ABUN
PA-231	1.026E+00	1.613E+00	2.595E+00	0.000E+00	NOT IDENT.
TH-231	1.914E-02	7.125E-01	1.088E+00	0.000E+00	FAIL ABUN
U-231	-4.148E-01	7.361E-01	1.138E+00	0.000E+00	FAIL ABUN
PA-233	2.191E-02	5.958E-02	1.054E-01	0.000E+00	FAIL ABUN
PA-234	-1.976E-02	3.630E-01	5.942E-01	0.000E+00	FAIL ABUN
PA-234M	-1.030E+00	6.021E+00	9.694E+00	0.000E+00	NOT IDENT.
TH-234	8.435E-01	5.556E-01	9.706E-01	0.000E+00	FAIL ABUN
U-235	-8.958E-02	1.798E-01	2.978E-01	0.000E+00	FAIL ABUN
NP-236	4.848E-02	6.506E-02	1.149E-01	0.000E+00	NOT IDENT.
U-238	8.435E-01	5.556E-01	9.706E-01	0.000E+00	FAIL ABUN
NP-239	-9.750E-02	1.438E-01	2.429E-01	0.000E+00	FAIL ABUN
AM-241	2.096E-02	4.838E-02	8.087E-02	0.000E+00	NOT IDENT.
CM-243	-7.571E-04	6.638E-02	1.170E-01	0.000E+00	FAIL ABUN
AM-246	8.126E-02	1.609E-01	2.859E-01	0.000E+00	NOT IDENT.
CM-247	-9.024E-03	4.015E-02	6.702E-02	0.000E+00	FAIL ABUN
CF-249	-1.115E-02	4.098E-02	6.837E-02	0.000E+00	NOT IDENT.
CF-251	-4.361E-02	1.114E-01	1.849E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 16:24:38.97

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246847001.CNF;1
Sample date      : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 14:22:50
Sample ID        : G246847001           Sample quantity  : 1.09860E+02 GRAM
Detector name    : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.80  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 952641               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1282	10.67*	1.109E+00	3.704E+01	3.704E+01	10.33
CD-109	88.03	335	3.72*	9.406E+00	3.268E+00	3.343E+00	21.08
SN-126	64.28	------	9.60	9.782E+00	------	Line Not Found	------
	86.94	335	8.90	9.406E+00	1.366E+00	1.366E+00	45.61
	87.57	335	37.00*	9.406E+00	3.286E-01	3.286E-01	21.08
TL-208	277.35	54	6.80	4.737E+00	5.678E-01	5.678E-01	93.80
	510.84	131	21.60	2.808E+00	7.358E-01	7.358E-01	51.87
	583.14	332	84.20*	2.497E+00	5.395E-01	5.395E-01	19.51
	860.37	59	12.46	1.765E+00	9.181E-01	9.181E-01	46.23
BI-210	46.50	58	4.05*	9.192E+00	5.298E-01	5.305E-01	108.80
PB-210	46.50	58	4.05*	9.192E+00	5.298E-01	5.305E-01	108.80
PO-210	46.50	58	4.05*	9.192E+00	5.298E-01	5.305E-01	108.73
BI-211	72.87	------	1.27	9.724E+00	------	Line Not Found	------
	351.07	466	12.94*	3.886E+00	3.167E+00	3.167E+00	18.07
PB-212	74.81	691	10.70	9.695E+00	2.276E+00	2.276E+00	18.14
	77.11	1002	18.00	9.652E+00	1.970E+00	1.970E+00	13.17
	87.30	335	8.00	9.406E+00	1.520E+00	1.520E+00	23.33
	238.63	1162	44.60*	5.339E+00	1.667E+00	1.667E+00	13.26
	300.09	66	3.41	4.447E+00	1.482E+00	1.482E+00	64.93
PO-212	74.81	691	10.70	9.695E+00	2.276E+00	2.276E+00	18.14
	77.11	1002	18.00	9.652E+00	1.970E+00	1.970E+00	13.17
	87.30	335	8.00	9.406E+00	1.520E+00	1.520E+00	23.33
	115.19	------	0.60	8.498E+00	------	Line Not Found	------
	238.63	1162	44.60*	5.339E+00	1.667E+00	1.667E+00	13.26
	300.09	66	3.41	4.447E+00	1.482E+00	1.482E+00	64.93
BI-214	609.31	331	46.30*	2.401E+00	1.017E+00	1.017E+00	19.98
	1120.29	------	15.10	1.398E+00	------	Line Not Found	------
	1764.49	44	15.80	9.413E-01	9.997E-01	9.997E-01	42.67
PB-214	74.81	691	6.21	9.695E+00	3.922E+00	3.922E+00	17.22
	77.11	1002	10.50	9.652E+00	3.378E+00	3.378E+00	15.21
	87.30	335	4.67	9.406E+00	2.604E+00	2.604E+00	22.45
	241.98	288	7.49	5.291E+00	2.484E+00	2.484E+00	31.49

Sample ID : G246847001 Acquisition date : 23-FEB-2010 14:22:50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	315	19.20	4.504E+00	1.243E+00	1.243E+00	23.08
	351.92	466	37.20*	3.886E+00	1.101E+00	1.101E+00	18.81
PO-214	74.81	691	6.21	9.695E+00	3.922E+00	3.922E+00	17.22
	77.11	1002	10.50	9.652E+00	3.378E+00	3.378E+00	15.21
	87.30	335	4.67	9.406E+00	2.604E+00	2.604E+00	22.45
	241.98	288	7.49	5.291E+00	2.484E+00	2.484E+00	31.49
	295.21	315	19.20	4.504E+00	1.243E+00	1.243E+00	23.08
	351.92	466	37.20*	3.886E+00	1.101E+00	1.101E+00	18.81
PO-216	74.81	691	10.70	9.695E+00	2.276E+00	2.276E+00	18.14
	77.11	1002	18.00	9.652E+00	1.970E+00	1.970E+00	13.17
	87.30	335	8.00	9.406E+00	1.520E+00	1.520E+00	23.33
	238.63	1162	44.60*	5.339E+00	1.667E+00	1.667E+00	13.26
	300.09	66	3.41	4.447E+00	1.482E+00	1.482E+00	64.93
PO-218	74.81	691	6.21	9.695E+00	3.922E+00	3.922E+00	17.22
	77.11	1002	10.50	9.652E+00	3.378E+00	3.378E+00	15.21
	87.30	335	4.67	9.406E+00	2.604E+00	2.604E+00	22.45
	241.98	288	7.49	5.291E+00	2.484E+00	2.484E+00	31.49
	295.21	315	19.20	4.504E+00	1.243E+00	1.243E+00	23.08
	351.92	466	37.20*	3.886E+00	1.101E+00	1.101E+00	18.81
RA-224	240.98	288	3.95*	5.291E+00	4.710E+00	4.710E+00	30.99
RA-226	609.31	331	46.30*	2.401E+00	1.017E+00	1.017E+00	19.98
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	44	15.80	9.413E-01	9.997E-01	9.997E-01	42.67
AC-228	338.32	208	11.40	4.018E+00	1.549E+00	1.549E+00	48.41
	911.07	231	27.70*	1.678E+00	1.700E+00	1.700E+00	20.85
	969.11	129	16.60	1.589E+00	1.673E+00	1.673E+00	41.66
RA-228	338.32	208	11.40	4.018E+00	1.549E+00	1.549E+00	48.41
	911.07	231	27.70*	1.678E+00	1.700E+00	1.700E+00	20.85
	969.11	129	16.60	1.589E+00	1.673E+00	1.673E+00	41.66
TH-228	74.81	691	10.70	9.695E+00	2.276E+00	2.311E+00	15.59
	77.11	1002	18.00	9.652E+00	1.970E+00	2.000E+00	13.17
	87.30	335	8.00	9.406E+00	1.520E+00	1.543E+00	21.08
	238.63	1162	44.60*	5.339E+00	1.667E+00	1.692E+00	13.26
	300.09	66	3.41	4.447E+00	1.482E+00	1.504E+00	87.30
TH-230	609.31	331	46.30*	2.401E+00	1.017E+00	1.017E+00	19.98
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	44	15.80	9.413E-01	9.997E-01	9.997E-01	42.67
TH-232	338.32	208	11.40	4.018E+00	1.549E+00	1.549E+00	26.74
	911.07	231	27.70*	1.678E+00	1.700E+00	1.700E+00	20.85
	969.11	129	16.60	1.589E+00	1.673E+00	1.673E+00	41.66
U-234	609.31	331	46.30*	2.401E+00	1.017E+00	1.017E+00	19.98
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	44	15.80	9.413E-01	9.997E-01	9.997E-01	42.67
NP-237	86.50	335	12.60*	9.406E+00	9.650E-01	9.650E-01	29.50
	95.87	------	2.60	9.143E+00	------ Line Not Found		------
AM-243	74.67	691	66.00*	9.695E+00	3.690E-01	3.690E-01	15.55
	86.72	335	0.34	9.406E+00	3.619E+01	3.619E+01	21.08
	117.66	------	0.55	8.415E+00	------ Line Not Found		------
	142.18	------	0.13	7.617E+00	------ Line Not Found		------

Sample ID : G246847001 Acquisition date : 23-FEB-2010 14:22:50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
ANH-511	511.00	131	100.00*	2.808E+00	1.589E-01	1.589E-01	51.20

Flag: "*" = Keyline

Sample ID : G246847001 Acquisition date : 23-FEB-2010 14:22:50

Total number of lines in spectrum 31
Number of unidentified lines 0
Number of lines tentatively identified by NID 31 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.704E+01	3.704E+01	0.383E+01	10.33	
CD-109	464.00D	1.02	3.268E+00	3.343E+00	0.705E+00	21.08	
SN-126	1.00E+05Y	1.00	3.286E-01	3.286E-01	0.693E-01	21.08	
TL-208	1.41E+10Y	1.00	5.395E-01	5.395E-01	1.053E-01	19.51	
BI-210	22.26Y	1.00	5.298E-01	5.305E-01	5.771E-01	108.80	
PB-210	22.26Y	1.00	5.298E-01	5.305E-01	5.771E-01	108.80	
PO-210	22.26Y	1.00	5.298E-01	5.305E-01	5.768E-01	108.73	
BI-211	7.04E+08Y	1.00	3.167E+00	3.167E+00	0.572E+00	18.07	
PB-212	1.41E+10Y	1.00	1.667E+00	1.667E+00	0.221E+00	13.26	
PO-212	1.41E+10Y	1.00	1.667E+00	1.667E+00	0.221E+00	13.26	
BI-214	1600.00Y	1.00	1.017E+00	1.017E+00	0.203E+00	19.98	
PB-214	1600.00Y	1.00	1.101E+00	1.101E+00	0.207E+00	18.81	
PO-214	1600.00Y	1.00	1.101E+00	1.101E+00	0.207E+00	18.81	
PO-216	1.41E+10Y	1.00	1.667E+00	1.667E+00	0.221E+00	13.26	
PO-218	1600.00Y	1.00	1.101E+00	1.101E+00	0.207E+00	18.81	
RA-224	1.41E+10Y	1.00	4.710E+00	4.710E+00	1.459E+00	30.99	
RA-226	1600.00Y	1.00	1.017E+00	1.017E+00	0.203E+00	19.98	
AC-228	1.41E+10Y	1.00	1.700E+00	1.700E+00	0.355E+00	20.85	
RA-228	1.41E+10Y	1.00	1.700E+00	1.700E+00	0.355E+00	20.85	
TH-228	1.91Y	1.02	1.667E+00	1.692E+00	0.224E+00	13.26	
TH-230	4.47E+09Y	1.00	1.017E+00	1.017E+00	0.203E+00	19.98	
TH-232	1.41E+10Y	1.00	1.700E+00	1.700E+00	0.355E+00	20.85	
U-234	4.47E+09Y	1.00	1.017E+00	1.017E+00	0.203E+00	19.98	
NP-237	2.14E+06Y	1.00	9.650E-01	9.650E-01	2.847E-01	29.50	
AM-243	7380.00Y	1.00	3.690E-01	3.690E-01	0.574E-01	15.55	
ANH-511	1.00E+09Y	1.00	1.589E-01	1.589E-01	0.814E-01	51.20	
	Total Activity :		7.128E+01	7.138E+01			

Grand Total Activity : 7.128E+01 7.138E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246847001 Acquisition date : 23-FEB-2010 14:22:50

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.06	166	420	1.24	167.68	163	8	2.31E-02	46.3	9.49E+00	T
4	89.83	194	340	1.09	179.22	171	21	2.69E-02	34.2	9.33E+00	T
4	92.77	261	320	1.21	185.09	171	21	3.63E-02	28.6	9.24E+00	T
0	129.29	97	338	1.41	258.12	253	10	1.34E-02	74.1	8.03E+00	T
0	185.88	128	300	1.14	371.30	367	9	1.77E-02	54.9	6.42E+00	T
0	209.60	107	242	1.04	418.74	414	10	1.49E-02	57.7	5.89E+00	T
0	269.99	88	175	0.99	539.50	535	10	1.22E-02	60.5	4.84E+00	T
0	328.26	84	143	1.10	656.04	652	11	1.16E-02	59.9	4.12E+00	T
0	462.58	104	93	1.14	924.66	918	13	1.44E-02	43.3	3.07E+00	T
0	637.79	74	107	8.11	1275.07	1266	22	1.03E-02	74.2	2.30E+00	T
0	726.98	87	81	1.60	1453.45	1446	13	1.20E-02	47.9	2.05E+00	T
0	794.41	59	57	1.47	1588.31	1582	15	8.24E-03	61.0	1.90E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 16:24:43.30

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246847001.CNF;1 *
* Acquisition date  : 23-FEB-2010 14:22:50  Detector SN#     :             *
* Detector ID       : GAM25                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.80          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 8-FEB-2010 12:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G246847001            Analyst initials: MXR1         *
* Batch Number      : 952641                Sample Quantity : 1.09860E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.704E+01	3.827E+00	6.327E-01	5.388E-02	58.550
CD-109	3.343E+00	7.048E-01	6.793E-01	7.300E-02	4.922
SN-126	3.286E-01	6.928E-02	6.663E-02	7.144E-03	4.932
TL-208	5.395E-01	1.053E-01	7.177E-02	8.090E-03	7.518
BI-210	5.305E-01	5.771E-01	6.466E-01	6.667E-02	0.820
PB-210	5.305E-01	5.771E-01	6.466E-01	6.667E-02	0.820
PO-210	5.305E-01	5.768E-01	6.466E-01	6.158E-02	0.820
BI-211	3.167E+00	5.722E-01	3.163E-01	3.333E-02	10.010
PB-212	1.667E+00	2.211E-01	7.932E-02	9.031E-03	21.016
PO-212	1.667E+00	2.211E-01	7.932E-02	9.031E-03	21.016
BI-214	1.017E+00	2.032E-01	1.177E-01	1.421E-02	8.638
PB-214	1.101E+00	2.072E-01	1.103E-01	1.295E-02	9.985
PO-214	1.101E+00	2.072E-01	1.103E-01	1.295E-02	9.985
PO-216	1.667E+00	2.211E-01	7.932E-02	9.031E-03	21.016
PO-218	1.101E+00	2.072E-01	1.103E-01	1.295E-02	9.985
RA-224	4.710E+00	1.459E+00	9.039E-01	9.498E-02	5.210
RA-226	1.017E+00	2.032E-01	1.177E-01	1.421E-02	8.638
AC-228	1.700E+00	3.545E-01	2.429E-01	2.889E-02	7.000

Sample ID : G246847001 Acquisition date : 23-FEB-2010 14:22:50

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.700E+00	3.545E-01	2.429E-01	2.889E-02	7.000
TH-228	1.692E+00	2.244E-01	8.053E-02	9.168E-03	21.016
TH-230	1.017E+00	2.032E-01	1.177E-01	1.421E-02	8.638
TH-232	1.700E+00	3.545E-01	2.429E-01	2.889E-02	7.000
U-234	1.017E+00	2.032E-01	1.177E-01	1.421E-02	8.638
NP-237	9.650E-01	2.847E-01	2.182E-01	5.069E-02	4.422
AM-243	3.690E-01	5.738E-02	4.317E-02	4.385E-03	8.547
ANH-511	1.589E-01	8.137E-02	5.117E-02	5.267E-03	3.106

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-9.080E-02		3.826E-01	5.926E-01	6.274E-02	-0.153
NA-22	-6.599E-02		5.401E-02	7.635E-02	6.261E-03	-0.864
NA-24	-8.144E-01		4.406E-01	Half-Life too short		
AL-26	1.921E-02		3.706E-02	6.704E-02	5.494E-03	0.286
TI-44	3.636E-01	+	4.788E-02	4.481E-02	4.614E-03	8.115
SC-46	6.328E-03		4.677E-02	7.711E-02	7.384E-03	0.082
V-48	-2.150E-02		8.262E-02	1.292E-01	1.197E-02	-0.166
CR-51	1.375E-01		3.548E-01	6.115E-01	6.791E-02	0.225
MN-52	-7.573E-02		2.481E-01	3.817E-01	3.145E-02	-0.198
MN-54	1.180E-02		5.433E-02	8.111E-02	8.231E-03	0.145
CO-56	-2.376E-02		4.387E-02	6.754E-02	6.777E-03	-0.352
CO-57	-9.962E-03		2.001E-02	3.293E-02	4.246E-03	-0.303
CO-58	-2.127E-02		4.356E-02	6.786E-02	7.041E-03	-0.313
FE-59	5.968E-02		1.112E-01	1.941E-01	1.828E-02	0.308
CO-60	6.155E-03		4.855E-02	8.066E-02	6.551E-03	0.076
ZN-65	-2.155E-01		1.386E-01	2.024E-01	1.749E-02	-1.064
GE-68	-7.200E-01		1.455E+00	2.312E+00	2.046E-01	-0.311
AS-73	3.365E-02		1.830E-01	2.927E-01	2.810E-02	0.115
AS-74	-2.002E-04		1.021E-01	1.630E-01	1.766E-02	-0.001
SE-75	2.379E-02		4.309E-02	6.794E-02	7.446E-03	0.350
BR-77	3.196E-01		1.115E+01	1.807E+01	1.874E+00	0.018
SR-82	-2.032E-01		4.574E-01	7.236E-01	7.679E-02	-0.281
RB-83	6.909E-04		7.342E-02	1.188E-01	1.231E-02	0.006
RB-84	2.000E-02		8.136E-02	1.357E-01	1.312E-02	0.147
KR-85	6.761E+00		8.951E+00	1.362E+01	1.405E+00	0.497
SR-85	3.466E-02		4.589E-02	6.980E-02	7.201E-03	0.497
RB-86	-4.614E-01		9.128E-01	1.447E+00	1.282E-01	-0.319
Y-88	-1.226E-02		3.429E-02	5.132E-02	4.194E-03	-0.239
ZR-88	-1.717E-03		3.174E-02	5.241E-02	4.771E-03	-0.033
Y-91	1.462E+01		2.477E+01	4.284E+01	3.525E+00	0.341
NB-94	9.795E-03		3.803E-02	6.454E-02	7.087E-03	0.152
NB-95	1.052E-02		5.075E-02	8.511E-02	9.091E-03	0.124
NB-95M	1.864E-02		1.206E-01	1.749E-01	2.004E-02	0.107
ZR-95	9.803E-02		8.565E-02	1.534E-01	1.757E-02	0.639
NB-97	-1.807E-01		6.299E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	2.760E+00		1.073E+00	Half-Life too short		
MO-99	1.974E+00		1.195E+01	2.009E+01	3.323E+00	0.098
TC-99M	2.342E+10		1.502E+10	Half-Life too short		
RH-101	1.010E-02		3.168E-02	5.148E-02	4.961E-03	0.196
RH-102	-2.452E-02		3.185E-02	4.850E-02	4.842E-03	-0.506
RU-103	1.755E-02		4.370E-02	7.317E-02	1.109E-02	0.240
RH-106	8.056E-03		3.710E-01	6.249E-01	9.354E-02	0.013
RU-106	8.056E-03		3.710E-01	6.249E-01	6.843E-02	0.013
AG-108M	-2.185E-03		3.196E-02	5.222E-02	5.160E-03	-0.042
AG-110M	-5.403E-02		4.488E-02	6.775E-02	7.634E-03	-0.798
IN-111	-5.616E-01		1.112E+00	1.504E+00	1.593E-01	-0.373
IN-113M	-1.252E-03		4.721E-02	7.812E-02	7.296E-03	-0.016
SN-113	-1.252E-03		4.721E-02	7.812E-02	7.296E-03	-0.016
IN-114M	-3.267E-02		1.824E-01	2.630E-01	2.489E-02	-0.124
CD-115	7.350E+00		1.197E+01	2.028E+01	2.114E+00	0.362
SN-117M	-1.871E-02		4.554E-02	7.382E-02	7.167E-03	-0.253
SB-122	1.649E+00		2.199E+00	3.752E+00	4.001E-01	0.439
I-123	1.343E+00		2.359E+00	Half-Life too short		
TE-123M	6.783E-03		2.383E-02	4.005E-02	3.888E-03	0.169
I-124	-8.639E-02		8.627E-01	1.255E+00	1.364E-01	-0.069
SB-124	9.711E-02		9.097E-02	1.771E-01	1.531E-02	0.548
SB-125	2.175E-02		9.115E-02	1.527E-01	1.475E-02	0.142
TE-125M	-3.761E+00		6.608E+00	1.091E+01	1.449E+00	-0.345
I-126	-2.882E-01		2.316E-01	3.478E-01	3.851E-02	-0.829
SB-126	4.809E-02		1.956E-01	2.897E-01	3.162E-02	0.166
SB-127	-9.395E-01		1.543E+00	2.430E+00	3.232E-01	-0.387
XE-127	-2.264E-02		4.293E-02	6.774E-02	6.598E-03	-0.334
I-131	1.394E-01		1.165E-01	2.078E-01	2.132E-02	0.671
TE-132	1.811E-01		6.568E-01	1.074E+00	1.791E-01	0.169
BA-133	1.458E-02		4.548E-02	6.891E-02	9.770E-03	0.212
I-133	6.762E-05		3.535E-03	Half-Life too short		
CS-134	1.411E-01	+	8.729E-02	1.023E-01	1.077E-02	1.379
CS-135	1.547E-01		1.703E-01	2.579E-01	3.112E-02	0.600
I-135	1.562E+09		3.350E+09	Half-Life too short		
CS-136	-4.165E-02		1.367E-01	2.228E-01	2.084E-02	-0.187
BA-137M	-1.865E-03		4.953E-02	8.604E-02	9.531E-03	-0.022
CS-137	-1.972E-03		5.236E-02	9.095E-02	1.009E-02	-0.022
CE-139	9.464E-03		2.562E-02	4.309E-02	3.842E-03	0.220
BA-140	-2.263E-01		2.966E-01	4.290E-01	1.445E-01	-0.528
LA-140	-4.825E-02		8.729E-02	1.312E-01	1.090E-02	-0.368
CE-141	-9.805E-03		5.284E-02	8.733E-02	9.712E-03	-0.112
CE-143	3.964E-04		8.483E-05	Half-Life too short		
CE-144	1.353E-01		1.846E-01	2.882E-01	5.096E-02	0.469
PM-144	1.985E-03		3.797E-02	6.348E-02	6.985E-03	0.031
PR-144	1.345E-01		2.573E+00	4.302E+00	4.732E-01	0.031
PM-146	6.091E-03		4.526E-02	7.485E-02	8.740E-03	0.081
ND-147	6.420E-01		6.533E-01	1.124E+00	1.806E-01	0.571
PM-149	-3.174E+01		9.266E+01	1.428E+02	2.436E+01	-0.222

Sample ID : G246847001 Acquisition date : 23-FEB-2010 14:22:50

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-1.855E-02		1.026E-01	1.642E-01	1.763E-02	-0.113
GD-153	-1.041E-02		5.827E-02	8.765E-02	9.871E-03	-0.119
EU-154	-1.672E-01		1.498E-01	2.139E-01	2.350E-02	-0.782
EU-155	9.547E-02		7.942E-02	1.404E-01	1.660E-02	0.680
TB-160	-1.837E-02		1.612E-01	2.594E-01	2.514E-02	-0.071
HO-166M	3.794E-02		7.261E-02	1.254E-01	1.373E-02	0.303
TM-171	3.464E+00		1.197E+01	1.906E+01	1.892E+00	0.182
LU-176	-9.730E-03		2.190E-02	3.591E-02	3.919E-03	-0.271
LU-177	2.702E+00	+	1.581E+00	1.808E+00	1.782E-01	1.495
LU-177M	-1.200E-01		1.887E-01	2.969E-01	2.775E-02	-0.404
HF-181	9.778E-03		5.039E-02	8.318E-02	8.358E-03	0.118
W-181	-4.901E-01		1.717E-01	2.277E-01	2.254E-02	-2.152
TA-182	-1.134E-01		2.573E-01	4.089E-01	3.363E-02	-0.277
RE-183	-5.613E-02		9.732E-02	1.535E-01	1.429E-02	-0.366
RE-184	1.048E-01		2.229E-01	3.666E-01	3.932E-02	0.286
OS-185	-3.116E-03		5.529E-02	8.011E-02	8.840E-03	-0.039
RE-188	1.289E-01		1.497E-01	2.575E-01	2.594E-02	0.500
W-188	-9.123E+00		7.731E+00	1.035E+01	1.147E+00	-0.881
IR-192	-2.328E-02		3.225E-02	5.171E-02	5.585E-03	-0.450
AU-195	1.071E-01		1.572E-01	2.698E-01	3.061E-02	0.397
TL-200	-1.793E-04		2.163E-04	Half-Life too short		
TL-201	-1.725E+00		6.026E+00	9.798E+00	8.765E-01	-0.176
TL-202	5.983E-02		7.339E-02	1.273E-01	1.226E-02	0.470
HG-203	1.099E-02		4.620E-02	6.636E-02	7.533E-03	0.166
BI-207	8.290E-03		6.507E-02	1.101E-01	9.827E-03	0.075
TL-207	1.914E-02		7.271E-01	1.082E+00	2.033E-01	0.018
PO-209	1.787E+00		8.656E+00	1.437E+01	1.363E+00	0.124
PB-211	1.239E+00		1.275E+00	1.801E+00	1.130E+00	0.688
BI-212	1.225E+00	+	6.051E-01	7.790E-01	9.360E-02	1.572
PO-215	1.914E-02		7.271E-01	1.082E+00	2.033E-01	0.018
RN-219	3.262E-02		4.498E-01	7.475E-01	1.149E-01	0.044
RN-220	1.016E+01		2.847E+01	4.722E+01	4.993E+00	0.215
RA-223	1.914E-02		7.271E-01	1.082E+00	2.033E-01	0.018
AC-227	-1.385E-01		3.798E-01	5.802E-01	9.666E-02	-0.239
TH-227	-1.385E-01		3.801E-01	5.802E-01	1.113E-01	-0.239
TH-229	-1.705E-01		4.613E-01	7.379E-01	7.039E-02	-0.231
PA-231	1.026E+00		1.646E+00	2.579E+00	4.317E-01	0.398
TH-231	1.914E-02		7.271E-01	1.082E+00	2.033E-01	0.018
U-231	-4.148E-01		7.511E-01	1.123E+00	1.254E-01	-0.370
PA-233	2.191E-02		6.080E-02	1.048E-01	1.157E-02	0.209
PA-234	-1.976E-02		3.704E-01	5.957E-01	1.139E-01	-0.033
PA-234M	-1.030E+00		6.143E+00	9.722E+00	1.018E+00	-0.106
TH-234	8.435E-01		5.669E-01	9.544E-01	1.777E-01	0.884
U-235	-8.958E-02		1.834E-01	2.946E-01	5.562E-02	-0.304
NP-236	4.848E-02		6.639E-02	1.137E-01	1.083E-02	0.426
U-238	8.435E-01		5.669E-01	9.544E-01	1.777E-01	0.884
NP-239	-9.750E-02		1.467E-01	2.399E-01	3.005E-02	-0.406
AM-241	2.096E-02		4.937E-02	7.949E-02	8.259E-03	0.264

Sample ID : G246847001 Acquisition date : 23-FEB-2010 14:22:50

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-7.571E-04		6.774E-02	1.154E-01	1.344E-02	-0.007
AM-246	8.126E-02		1.641E-01	2.869E-01	2.537E-02	0.283
CM-247	-9.024E-03		4.097E-02	6.677E-02	6.155E-03	-0.135
CF-249	-1.115E-02		4.181E-02	6.810E-02	6.267E-03	-0.164
CF-251	-4.361E-02		1.137E-01	1.831E-01	1.677E-02	-0.238

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246847001            *
* Acquisition date : 23-FEB-2010 14:22:50 Detector SN#    :                 *
* Detector ID      : GAM25                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.80     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  8-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G246847001           Analyst initials: MXR1            *
* Batch Number     : 952641               Sample Quantity : 1.0986E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.704E+01	3.750E+00	3.148E-01	1.914E+00
CD-109	3.343E+00	6.907E-01	3.448E-01	3.524E-01
SN-126	3.286E-01	6.789E-02	3.382E-02	3.464E-02
TL-208	5.395E-01	1.031E-01	3.594E-02	5.263E-02
BI-210	5.305E-01	5.656E-01	3.297E-01	2.886E-01
PB-210	5.305E-01	5.656E-01	3.297E-01	2.886E-01
PO-210	5.305E-01	5.652E-01	3.297E-01	2.884E-01
BI-211	3.167E+00	5.608E-01	1.590E-01	2.861E-01
PB-212	1.667E+00	2.166E-01	3.998E-02	1.105E-01
PO-212	1.667E+00	2.166E-01	3.998E-02	1.105E-01
BI-214	1.017E+00	1.991E-01	5.895E-02	1.016E-01
PB-214	1.101E+00	2.030E-01	5.545E-02	1.036E-01
PO-214	1.101E+00	2.030E-01	5.545E-02	1.036E-01
PO-216	1.667E+00	2.166E-01	3.998E-02	1.105E-01
PO-218	1.101E+00	2.030E-01	5.545E-02	1.036E-01
RA-224	4.710E+00	1.430E+00	4.556E-01	7.297E-01
RA-226	1.017E+00	1.991E-01	5.895E-02	1.016E-01
AC-228	1.700E+00	3.475E-01	1.213E-01	1.773E-01
RA-228	1.700E+00	3.475E-01	1.213E-01	1.773E-01
TH-228	1.692E+00	2.199E-01	4.059E-02	1.122E-01
TH-230	1.017E+00	1.991E-01	5.895E-02	1.016E-01
TH-232	1.700E+00	3.475E-01	1.213E-01	1.773E-01
U-234	1.017E+00	1.991E-01	5.895E-02	1.016E-01
NP-237	9.650E-01	2.790E-01	1.108E-01	1.423E-01
AM-243	3.690E-01	5.623E-02	2.194E-02	2.869E-02
ANH-511	1.589E-01	7.975E-02	2.565E-02	4.069E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-9.080E-02	3.750E-01	2.972E-01	1.913E-01 NOT IDENT.

NA-22	-6.599E-02	5.293E-02	3.802E-02	2.700E-02	NOT IDENT.
NA-24	-8.144E+05	8.636E+05	0.000E+00	4.406E+05	SHORT HLIF
AL-26	1.921E-02	3.632E-02	3.330E-02	1.853E-02	NOT IDENT.
TI-44	3.636E-01	4.692E-02	2.276E-02	2.394E-02	FAIL ABUN
SC-46	6.328E-03	4.583E-02	3.850E-02	2.338E-02	NOT IDENT.
V-48	-2.150E-02	8.096E-02	6.444E-02	4.131E-02	NOT IDENT.
CR-51	1.375E-01	3.477E-01	3.076E-01	1.774E-01	NOT IDENT.
MN-52	-7.573E-02	2.431E-01	1.899E-01	1.240E-01	NOT IDENT.
MN-54	1.180E-02	5.325E-02	4.052E-02	2.717E-02	NOT IDENT.
CO-56	-2.376E-02	4.300E-02	3.373E-02	2.194E-02	NOT IDENT.
CO-57	-9.962E-03	1.961E-02	1.668E-02	1.001E-02	NOT IDENT.
CO-58	-2.127E-02	4.269E-02	3.391E-02	2.178E-02	NOT IDENT.
FE-59	5.968E-02	1.089E-01	9.675E-02	5.558E-02	NOT IDENT.
CO-60	6.155E-03	4.758E-02	4.015E-02	2.427E-02	NOT IDENT.
ZN-65	-2.155E-01	1.358E-01	1.009E-01	6.931E-02	NOT IDENT.
GE-68	-7.200E-01	1.426E+00	1.153E+00	7.277E-01	NOT IDENT.
AS-73	3.365E-02	1.793E-01	1.491E-01	9.149E-02	NOT IDENT.
AS-74	-2.002E-04	1.001E-01	8.162E-02	5.107E-02	NOT IDENT.
SE-75	2.379E-02	4.223E-02	3.422E-02	2.155E-02	NOT IDENT.
BR-77	3.196E-01	1.093E+01	9.059E+00	5.576E+00	FAIL ABUN
SR-82	-2.032E-01	4.483E-01	3.616E-01	2.287E-01	NOT IDENT.
RB-83	6.909E-04	7.195E-02	5.954E-02	3.671E-02	NOT IDENT.
RB-84	2.000E-02	7.973E-02	6.778E-02	4.068E-02	NOT IDENT.
KR-85	6.761E+00	8.772E+00	6.825E+00	4.476E+00	NOT IDENT.
SR-85	3.466E-02	4.497E-02	3.499E-02	2.294E-02	NOT IDENT.
RB-86	-4.614E-01	8.946E-01	7.217E-01	4.564E-01	NOT IDENT.
Y-88	-1.226E-02	3.360E-02	2.549E-02	1.714E-02	NOT IDENT.
ZR-88	-1.717E-03	3.111E-02	2.632E-02	1.587E-02	NOT IDENT.
Y-91	1.462E+01	2.427E+01	2.134E+01	1.239E+01	NOT IDENT.
NB-94	9.795E-03	3.727E-02	3.228E-02	1.901E-02	NOT IDENT.
NB-95	1.052E-02	4.973E-02	4.254E-02	2.537E-02	NOT IDENT.
NB-95M	1.864E-02	1.182E-01	8.815E-02	6.032E-02	NOT IDENT.
ZR-95	9.803E-02	8.394E-02	7.669E-02	4.283E-02	NOT IDENT.
NB-97	-1.807E+05	1.235E+05	0.000E+00	6.299E+04	SHORT HLIF
ZR-97	2.760E+06	2.103E+06	0.000E+00	1.073E+06	SHORT HLIF
MO-99	1.974E+00	1.171E+01	1.004E+01	5.974E+00	NOT IDENT.
TC-99M	2.342E+16	2.945E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.010E-02	3.104E-02	2.599E-02	1.584E-02	NOT IDENT.
RH-102	-2.452E-02	3.121E-02	2.433E-02	1.592E-02	NOT IDENT.
RU-103	1.755E-02	4.282E-02	3.669E-02	2.185E-02	FAIL ABUN
RH-106	8.056E-03	3.636E-01	3.128E-01	1.855E-01	FAIL ABUN
RU-106	8.056E-03	3.636E-01	3.128E-01	1.855E-01	FAIL ABUN
AG-108M	-2.185E-03	3.132E-02	2.621E-02	1.598E-02	NOT IDENT.
AG-110M	-5.403E-02	4.399E-02	3.390E-02	2.244E-02	NOT IDENT.
IN-111	-5.616E-01	1.090E+00	7.579E-01	5.561E-01	NOT IDENT.
IN-113M	-1.252E-03	4.626E-02	3.924E-02	2.360E-02	NOT IDENT.
SN-113	-1.252E-03	4.626E-02	3.924E-02	2.360E-02	NOT IDENT.
IN-114M	-3.267E-02	1.787E-01	1.328E-01	9.118E-02	NOT IDENT.
CD-115	7.350E+00	1.173E+01	1.017E+01	5.985E+00	NOT IDENT.
SN-117M	-1.871E-02	4.463E-02	3.732E-02	2.277E-02	NOT IDENT.
SB-122	1.649E+00	2.155E+00	1.880E+00	1.099E+00	NOT IDENT.
I-123	1.343E+06	4.624E+06	0.000E+00	2.359E+06	SHORT HLIF
TE-123M	6.783E-03	2.336E-02	2.024E-02	1.192E-02	NOT IDENT.
I-124	-8.639E-02	8.455E-01	6.284E-01	4.314E-01	NOT IDENT.
SB-124	9.711E-02	8.915E-02	8.801E-02	4.548E-02	FAIL ABUN
SB-125	2.175E-02	8.933E-02	7.665E-02	4.557E-02	FAIL ABUN
TE-125M	-3.761E+00	6.476E+00	5.530E+00	3.304E+00	NOT IDENT.
I-126	-2.882E-01	2.270E-01	1.740E-01	1.158E-01	NOT IDENT.
SB-126	4.809E-02	1.917E-01	1.449E-01	9.779E-02	FAIL ABUN
SB-127	-9.395E-01	1.512E+00	1.216E+00	7.715E-01	NOT IDENT.
XE-127	-2.264E-02	4.207E-02	3.418E-02	2.146E-02	NOT IDENT.
I-131	1.394E-01	1.141E-01	1.044E-01	5.823E-02	FAIL ABUN
TE-132	1.811E-01	6.436E-01	5.417E-01	3.284E-01	NOT IDENT.
BA-133	1.458E-02	4.457E-02	3.463E-02	2.274E-02	FAIL ABUN
I-133	6.762E+01	6.929E+03	0.000E+00	3.535E+03	SHORT HLIF
CS-134	1.411E-01	8.555E-02	5.112E-02	4.365E-02	FAIL ABUN
CS-135	1.547E-01	1.669E-01	1.299E-01	8.514E-02	NOT IDENT.
I-135	1.562E+15	6.567E+15	0.000E+00	3.350E+15	SHORT HLIF
CS-136	-4.165E-02	1.339E-01	1.111E-01	6.834E-02	FAIL ABUN
BA-137M	-1.865E-03	4.854E-02	4.305E-02	2.477E-02	NOT IDENT.
CS-137	-1.972E-03	5.131E-02	4.551E-02	2.618E-02	NOT IDENT.
CE-139	9.464E-03	2.511E-02	2.177E-02	1.281E-02	NOT IDENT.
BA-140	-2.263E-01	2.906E-01	2.150E-01	1.483E-01	NOT IDENT.
LA-140	-4.825E-02	8.554E-02	6.520E-02	4.364E-02	FAIL ABUN
CE-141	-9.805E-03	5.178E-02	4.417E-02	2.642E-02	NOT IDENT.
CE-143	3.964E+02	1.663E+02	0.000E+00	8.483E+01	SHORT HLIF
CE-144	1.353E-01	1.809E-01	1.459E-01	9.230E-02	NOT IDENT.
PM-144	1.985E-03	3.721E-02	3.175E-02	1.899E-02	NOT IDENT.

PR-144	1.345E-01	2.522E+00	2.152E+00	1.286E+00	NOT IDENT.
PM-146	6.091E-03	4.435E-02	3.756E-02	2.263E-02	NOT IDENT.
ND-147	6.420E-01	6.402E-01	5.633E-01	3.266E-01	FAIL ABUN
PM-149	-3.174E+01	9.081E+01	7.189E+01	4.633E+01	NOT IDENT.
EU-152	-1.855E-02	1.005E-01	8.254E-02	5.129E-02	NOT IDENT.
GD-153	-1.041E-02	5.711E-02	4.446E-02	2.914E-02	FAIL ABUN
EU-154	-1.672E-01	1.468E-01	1.065E-01	7.490E-02	NOT IDENT.
EU-155	9.547E-02	7.783E-02	7.120E-02	3.971E-02	FAIL ABUN
TB-160	-1.837E-02	1.580E-01	1.295E-01	8.060E-02	FAIL ABUN
HO-166M	3.794E-02	7.115E-02	6.270E-02	3.630E-02	FAIL ABUN
TM-171	3.464E+00	1.173E+01	9.695E+00	5.986E+00	NOT IDENT.
LU-176	-9.730E-03	2.146E-02	1.807E-02	1.095E-02	FAIL ABUN
LU-177	2.702E+00	1.549E+00	9.121E-01	7.903E-01	FAIL ABUN
LU-177M	-1.200E-01	1.849E-01	1.490E-01	9.435E-02	FAIL ABUN
HF-181	9.778E-03	4.938E-02	4.172E-02	2.519E-02	NOT IDENT.
W-181	-4.901E-01	1.683E-01	1.158E-01	8.586E-02	NOT IDENT.
TA-182	-1.134E-01	2.521E-01	2.037E-01	1.286E-01	NOT IDENT.
RE-183	-5.613E-02	9.537E-02	7.760E-02	4.866E-02	FAIL ABUN
RE-184	1.048E-01	2.184E-01	1.847E-01	1.114E-01	NOT IDENT.
OS-185	-3.116E-03	5.418E-02	4.009E-02	2.764E-02	NOT IDENT.
RE-188	1.289E-01	1.467E-01	1.302E-01	7.486E-02	NOT IDENT.
W-188	-9.123E+00	7.577E+00	5.211E+00	3.866E+00	NOT IDENT.
IR-192	-2.328E-02	3.160E-02	2.601E-02	1.612E-02	FAIL ABUN
AU-195	1.071E-01	1.541E-01	1.368E-01	7.862E-02	FAIL ABUN
TL-200	-1.793E+02	4.239E+02	0.000E+00	2.163E+02	SHORT HLIF
TL-201	-1.725E+00	5.905E+00	4.951E+00	3.013E+00	NOT IDENT.
TL-202	5.983E-02	7.193E-02	6.389E-02	3.670E-02	NOT IDENT.
HG-203	1.099E-02	4.528E-02	3.341E-02	2.310E-02	FAIL ABUN
BI-207	8.290E-03	6.377E-02	5.490E-02	3.254E-02	FAIL ABUN
TL-207	1.914E-02	7.125E-01	5.443E-01	3.635E-01	FAIL ABUN
PO-209	1.787E+00	8.483E+00	7.172E+00	4.328E+00	NOT IDENT.
PB-211	1.239E+00	1.249E+00	9.043E-01	6.375E-01	NOT IDENT.
BI-212	1.225E+00	5.930E-01	3.895E-01	3.025E-01	FAIL ABUN
PO-215	1.914E-02	7.125E-01	5.443E-01	3.635E-01	FAIL ABUN
RN-219	3.262E-02	4.408E-01	3.754E-01	2.249E-01	FAIL ABUN
RN-220	1.016E+01	2.790E+01	2.366E+01	1.424E+01	NOT IDENT.
RA-223	1.914E-02	7.125E-01	5.443E-01	3.635E-01	FAIL ABUN
AC-227	-1.385E-01	3.723E-01	2.923E-01	1.899E-01	FAIL ABUN
TH-227	-1.385E-01	3.725E-01	2.923E-01	1.900E-01	FAIL ABUN
TH-229	-1.705E-01	4.521E-01	3.725E-01	2.307E-01	FAIL ABUN
PA-231	1.026E+00	1.613E+00	1.298E+00	8.228E-01	NOT IDENT.
TH-231	1.914E-02	7.125E-01	5.443E-01	3.635E-01	FAIL ABUN
U-231	-4.148E-01	7.361E-01	5.695E-01	3.756E-01	FAIL ABUN
PA-233	2.191E-02	5.958E-02	5.272E-02	3.040E-02	FAIL ABUN
PA-234	-1.976E-02	3.630E-01	2.973E-01	1.852E-01	FAIL ABUN
PA-234M	-1.030E+00	6.021E+00	4.850E+00	3.072E+00	NOT IDENT.
TH-234	8.435E-01	5.556E-01	4.856E-01	2.835E-01	FAIL ABUN
U-235	-8.958E-02	1.798E-01	1.490E-01	9.172E-02	FAIL ABUN
NP-236	4.848E-02	6.506E-02	5.748E-02	3.320E-02	NOT IDENT.
U-238	8.435E-01	5.556E-01	4.856E-01	2.835E-01	FAIL ABUN
NP-239	-9.750E-02	1.438E-01	1.215E-01	7.334E-02	FAIL ABUN
AM-241	2.096E-02	4.838E-02	4.046E-02	2.468E-02	NOT IDENT.
CM-243	-7.571E-04	6.638E-02	5.851E-02	3.387E-02	FAIL ABUN
AM-246	8.126E-02	1.609E-01	1.430E-01	8.207E-02	NOT IDENT.
CM-247	-9.024E-03	4.015E-02	3.353E-02	2.048E-02	FAIL ABUN
CF-249	-1.115E-02	4.098E-02	3.421E-02	2.091E-02	NOT IDENT.
CF-251	-4.361E-02	1.114E-01	9.249E-02	5.683E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	228.6991
46.50	228.6991
46.50	228.6991
48.70	226.6878
49.72	210.7789
51.35	249.2886
52.39	232.9013
52.97	241.1436
53.15	230.3564
53.44	233.9308
54.07	219.1274
56.28	259.9955
56.28	259.9990
57.37	0.0000
57.53	299.2642
57.53	299.2662
57.60	279.2416
57.98	268.4729
57.98	268.4729
59.32	267.6302
59.32	267.6302
59.40	276.7125
59.54	276.8617
59.72	298.4525
60.01	287.5102
61.10	472.1187
61.14	488.0432
61.30	488.3392
63.00	298.7478
63.29	308.2000
63.29	308.2000
63.58	319.9555
64.28	352.8540
65.12	482.6329
65.20	482.7731
65.20	482.7731
66.05	404.6949
66.72	308.5762
66.83	316.7937
66.91	316.8815
67.20	328.7845
67.20	328.7845
67.75	349.1382
67.85	328.3760
68.90	314.4390
68.90	314.4390
69.30	352.1943
69.67	370.5507
70.82	328.2404
70.82	328.2404
70.83	328.2510
72.80	300.5340
72.87	300.6039
72.87	300.6039
74.67	302.3914
74.81	302.5294
74.81	302.5294
74.81	302.5294
74.81	302.5294
74.81	302.5294
74.81	302.5294
74.81	302.5294
74.97	302.6867
75.28	302.9918
75.70	303.4056
77.11	304.7813
77.11	304.7813

77.11	304.7813
77.11	304.7813
77.11	304.7813
77.11	304.7813
77.11	304.7813
78.38	306.0092
79.62	307.1983
79.80	307.3712
79.80	307.3712
80.11	307.6665
80.18	307.7326
80.30	307.8472
80.30	307.8472
80.57	308.1037
81.00	227.7495
81.07	227.7982
81.07	227.7982
81.07	227.7982
81.07	227.7982
82.60	228.8640
83.37	263.5582
83.78	263.8845
83.78	263.8845
83.78	263.8845
83.78	263.8845
84.21	264.2239
84.90	264.7678
85.43	265.1830
86.29	265.8538
86.50	266.0169
86.54	266.0482
86.59	266.0878
86.72	211.9648
86.79	212.0067
86.94	212.1012
87.30	212.3230
87.30	212.3230
87.30	212.3230
87.30	212.3230
87.30	212.3230
87.30	212.3230
87.30	212.3230
87.57	212.4897
87.88	212.6799
88.03	212.7718
88.36	212.9739
88.47	213.0421
89.95	213.9449
91.11	214.6470
92.29	220.3646
92.38	220.4203
92.38	220.4203
93.35	221.0125
94.00	221.4086
94.67	221.8127
94.67	221.8154
94.90	211.8662
94.90	211.8662
94.90	211.8662
94.90	211.8662
95.87	246.5648
95.87	246.5648
96.73	244.6043
97.43	228.5541
98.44	206.7616
98.44	206.7616
98.88	214.9898
99.55	223.0321
99.55	223.0321
99.86	238.5486
100.00	238.6355
100.10	238.7010
103.18	258.6535
103.76	220.3112
105.00	207.1912
105.31	207.3535
108.00	242.6705
109.28	221.6221

111.00	205.9047
111.00	205.9047
111.76	203.6490
112.95	225.3568
115.19	212.3962
116.30	219.1602
117.00	226.6269
117.00	226.6269
117.66	203.8320
121.11	215.3149
121.62	229.0354
121.78	227.3214
122.06	218.4736
122.32	207.8058
122.32	207.8058
122.32	207.8058
122.32	207.8058
123.07	191.0338
127.23	211.4369
129.76	215.7956
131.20	195.3648
133.02	193.3545
133.54	189.4181
135.34	179.4910
136.00	182.5152
136.25	196.5136
136.48	202.1707
140.51	185.1376
140.51	0.0000
142.18	205.4595
142.65	203.7752
143.76	222.1046
144.24	207.2437
144.24	207.2437
144.24	207.2437
144.24	207.2437
145.22	214.2511
145.44	217.1762
147.16	212.2217
152.43	221.0742
152.70	200.1216
153.22	182.1065
154.21	184.3652
154.21	184.3652
154.21	184.3652
154.21	184.3652
155.03	193.3038
156.02	218.7101
158.56	190.6974
159.00	0.0000
159.00	180.1932
160.31	168.0003
161.27	202.3400
162.32	203.6976
162.64	196.0130
163.35	199.1918
163.89	185.7015
165.85	181.4451
167.43	193.7535
171.28	195.0541
171.86	196.2396
172.10	186.4050
176.55	198.8097
176.60	198.8259
181.06	193.2617
184.41	156.3703
185.71	188.6489
186.00	188.7360
190.27	188.4977
192.34	172.2007
193.63	191.0367
197.04	170.3661
198.01	167.5190
198.60	172.8439
200.40	199.2656
201.83	195.5388
202.84	192.7121
205.31	166.2412

208.36	203.2278
208.81	174.4618
209.75	174.7016
209.75	174.7016
210.97	166.0524
215.65	153.9106
216.55	164.7380
218.09	165.0990
222.10	169.2484
223.80	163.2070
226.40	171.3378
227.00	183.3435
227.08	183.3643
227.20	183.3937
228.16	162.0300
228.18	162.0346
228.18	162.0346
231.56	0.0000
235.69	152.2290
236.00	152.2915
236.00	152.2915
238.63	141.3208
238.63	141.3208
238.63	141.3208
238.63	141.3208
239.00	141.3890
240.98	141.7578
241.98	141.9428
241.98	141.9428
241.98	141.9428
244.69	129.1923
245.39	144.2292
247.94	143.0398
248.90	148.7653
249.79	142.2656
252.40	151.6566
252.85	129.4286
252.85	129.4286
254.15	0.0000
256.20	142.2962
256.20	142.2962
260.50	148.6880
260.90	129.6019
262.80	133.2926
264.65	114.1198
268.24	124.5063
268.79	122.8821
269.46	133.2294
269.46	133.2294
269.46	133.2294
269.46	133.2294
271.23	148.9153
273.65	92.6955
276.40	151.5481
277.35	139.0717
277.60	139.1136
277.60	139.1136
278.00	139.1776
278.60	139.2760
279.20	138.2202
279.53	153.8297
280.46	143.6137
281.68	126.4891
283.67	123.6505
284.30	133.2401
285.00	165.8151
285.90	136.9657
286.10	136.9969
286.10	136.9969
287.40	118.5974
288.45	0.0000
290.67	145.6432
290.80	128.8562
291.72	127.5866
293.26	0.0000
293.70	105.3864
295.21	99.9339
295.21	99.9339

295.21	99.9339
295.96	100.0171
296.50	102.1903
297.23	102.2735
298.57	102.4240
299.80	113.1719
299.80	113.1719
300.09	113.2070
300.09	113.2070
300.09	113.2070
300.09	113.2070
300.12	113.2109
301.29	113.3555
302.84	96.5148
303.76	106.5564
303.91	96.6261
304.40	116.5817
304.40	116.5817
304.84	128.0171
306.84	109.5825
308.46	103.5267
311.98	109.2892
316.51	119.7114
318.01	114.4911
319.02	108.2941
319.41	116.4634
320.08	107.5096
323.87	120.4473
323.87	120.4473
323.87	120.4473
323.87	120.4473
325.23	120.6155
328.77	125.7890
333.44	109.8981
334.20	131.9788
334.20	131.9788
334.30	131.9919
338.28	115.9505
338.28	115.9505
338.28	115.9505
338.28	115.9505
338.32	115.9544
338.32	115.9544
338.32	115.9544
340.50	110.6708
340.57	110.6781
344.27	122.7180
345.85	108.7790
350.59	0.0000
351.07	100.6320
351.92	100.7144
351.92	100.7144
351.92	100.7144
355.39	0.0000
356.01	89.8726
364.48	83.9848
366.43	103.0441
367.43	95.5690
367.94	0.0000
369.80	97.6737
374.96	97.1830
383.85	88.3585
387.95	109.8861
388.63	102.2362
391.69	107.3466
391.69	107.3466
392.90	101.6515
398.62	107.9936
400.65	100.3848
401.10	96.5241
401.81	110.2412
402.60	118.1253
404.84	91.9432
410.95	82.5875
411.60	103.2905
413.65	112.3353
414.70	101.5855
415.30	96.7020

415.76	85.8809
417.63	0.0000
418.52	85.0880
423.70	79.4897
427.08	77.7167
427.89	77.7679
432.53	83.0646
433.93	77.1457
439.47	85.5383
439.56	77.4935
439.89	77.5134
443.98	84.8344
444.90	82.8746
445.03	77.8295
445.03	77.8295
445.03	77.8295
445.03	77.8295
453.90	80.4043
463.38	64.5862
468.07	85.5981
473.00	76.4141
475.06	94.1131
475.35	92.0651
476.78	90.0918
477.59	92.2172
477.96	91.2065
482.03	94.5991
484.57	87.4838
487.03	83.4680
490.36	0.0000
492.35	74.3639
497.08	71.4635
507.63	0.0000
510.53	0.0000
510.84	81.7120
511.00	81.7214
511.85	81.7696
511.85	81.7696
513.99	83.3808
513.99	83.3808
520.41	70.5057
520.65	71.5842
527.90	67.6450
528.96	0.0000
529.64	89.2260
529.87	0.0000
531.02	67.7873
537.32	83.2036
543.00	70.5026
546.56	0.0000
549.76	65.3705
552.65	65.4932
555.20	69.9766
563.23	64.8445
563.90	59.3756
568.70	71.6888
569.32	72.8199
569.50	72.8300
569.67	72.8381
573.80	77.4533
574.00	77.4640
574.64	76.3889
578.91	62.1626
579.30	0.0000
583.14	90.1511
585.48	83.8174
591.81	67.1393
592.07	67.1484
593.00	73.9056
595.88	69.5494
600.56	76.4979
602.52	0.0000
602.71	87.1109
602.71	87.1109
603.60	91.6663
604.41	81.1868
604.70	81.2021
609.31	67.8552

609.31	67.8552
609.31	67.8552
609.31	67.8552
610.33	73.9327
612.46	69.4941
614.37	75.1925
618.01	74.5748
621.84	77.4774
621.84	77.4774
631.29	77.9091
633.02	81.0441
633.10	81.0484
634.78	73.4746
635.90	63.4123
636.97	63.4510
645.85	69.3219
646.12	69.3329
656.30	87.3975
657.75	107.0095
657.90	0.0000
661.65	75.5380
661.65	75.5380
664.57	0.0000
666.33	108.4583
666.33	108.4583
675.00	69.5213
677.61	68.6799
685.20	73.6887
692.80	73.9915
695.00	67.4292
696.49	66.5325
696.49	66.5325
697.00	67.5020
697.49	66.5684
698.33	73.2590
698.50	70.4102
699.00	72.3336
702.63	67.7048
706.10	63.0513
706.58	0.0000
706.67	75.4936
709.31	76.5566
711.68	67.0691
713.82	57.5522
717.42	65.3487
720.50	68.9827
721.93	0.0000
722.20	75.4666
722.78	83.5203
722.78	83.5203
722.89	83.5246
722.95	81.9204
723.30	81.9349
724.18	83.5796
727.18	75.6617
733.00	42.9029
735.90	72.7643
739.58	48.6011
742.81	57.4429
744.21	55.5346
747.13	54.6410
751.79	72.3722
752.31	71.4120
753.82	64.6143
755.35	57.8044
756.15	53.9070
756.87	52.9466
763.93	79.6968
765.79	73.8611
766.42	74.8682
766.84	79.8115
776.49	71.2775
778.00	71.3303
778.57	70.3586
778.89	70.3708
783.80	66.5633
785.46	65.6213
792.07	54.8590

795.84	40.9680
796.30	33.3146
798.80	76.7135
801.93	55.1155
805.60	56.2146
810.29	59.3572
810.76	56.3514
815.85	53.4594
817.79	59.5646
818.51	61.6046
819.60	64.6672
826.30	62.8401
828.27	0.0000
831.60	55.8809
831.96	55.8903
834.83	70.2078
836.80	0.0000
846.75	55.2432
848.13	52.2065
856.28	0.0000
856.80	56.5200
860.37	57.6393
867.32	51.6211
867.82	49.3385
871.10	52.7419
873.19	39.3332
874.81	44.5401
875.33	0.0000
876.40	52.8639
879.36	50.8566
880.27	44.6471
880.51	41.5361
881.50	47.7868
883.24	56.1397
884.67	54.0947
889.25	51.0744
896.60	48.0990
898.02	53.3595
899.00	55.4753
903.28	52.4304
911.07	50.4996
911.07	50.4996
911.07	50.4996
919.63	43.2907
920.93	59.1609
925.00	47.6213
925.24	50.8008
926.50	41.2975
935.52	38.2632
937.48	57.4409
944.10	60.7963
946.00	54.4390
949.00	49.1625
962.29	60.8890
964.01	75.2671
966.15	69.9512
968.20	94.7805
969.11	52.0763
969.11	52.0763
969.11	52.0763
977.42	48.6453
980.50	42.2106
983.50	48.7628
989.30	47.7877
996.32	55.5422
1001.03	57.8264
1001.68	58.9320
1004.76	46.9840
1021.30	0.0000
1024.50	0.0000
1034.80	50.6561
1036.00	51.6022
1037.82	49.7922
1038.57	51.6501
1038.76	0.0000
1045.16	51.7777
1046.59	55.5078
1048.07	62.0164

1050.47	58.3652
1050.47	58.3652
1062.04	59.5469
1063.62	54.9260
1076.63	53.3192
1077.35	54.2688
1078.86	43.0632
1085.78	57.2496
1099.22	49.0378
1112.02	61.5776
1112.84	65.3866
1115.52	118.5659
1120.29	73.1588
1120.29	73.1588
1120.29	73.1588
1120.29	73.1588
1120.51	71.2646
1121.28	63.6794
1124.00	0.0000
1129.67	60.0546
1131.51	0.0000
1147.95	0.0000
1167.94	49.2568
1173.22	72.5677
1175.09	60.9954
1177.93	75.5879
1189.05	60.3072
1204.90	64.5364
1205.75	0.0000
1213.00	79.4147
1221.42	78.6491
1230.97	68.0454
1235.34	96.7798
1236.41	0.0000
1238.25	63.2630
1246.25	63.4245
1260.41	0.0000
1271.85	55.9476
1274.45	56.9930
1274.54	58.9928
1291.56	46.2396
1298.22	0.0000
1312.09	47.5431
1325.50	38.5953
1325.50	38.5953
1332.49	34.6060
1333.61	31.5626
1360.21	27.7086
1362.66	0.0000
1365.15	22.6105
1368.21	39.0885
1368.53	0.0000
1376.25	22.6839
1384.27	27.9042
1394.10	22.8021
1395.20	21.7725
1407.95	24.9736
1434.06	20.9660
1436.60	14.6864
1457.56	0.0000
1460.81	22.1792
1489.15	10.6437
1509.49	9.6321
1596.49	18.7695
1620.62	12.2750
1678.03	0.0000
1691.02	8.6472
1691.02	8.6472
1706.46	0.0000
1750.46	0.0000
1764.49	10.2660
1764.49	10.2660
1764.49	10.2660
1764.49	10.2660
1770.23	54.8242
1771.40	28.3992
1791.20	0.0000
1808.65	9.8769

1836.01 9.9383

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246847001

Total Uranium Activity	2.4680E+00	ug/g
Total Uranium Counting Unc.	1.6550E+00	ug/g
Total Uranium Tpu	8.4439E-07	ug/g
Total Uranium Mda	1.4462E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 952641                    SAMPLE ID  : G246847001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   :  8-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 14:22:50.03    SAMPLE ALQT:  109.860 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.649E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.373E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.799E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.355E+00
```

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 17:23:33.80

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041817.CNF;1
Sample date       : 15-FEB-2010 00:00:00 Acquisition date : 23-FEB-2010 15:22:32
Sample ID         : G1202041817          Sample quantity  : 1.45530E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.51  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	1006.47	11	2	0.97	2011.59	2009	6	1.50E-03	38.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 17:23:36

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041817.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 15-FEB-2010 00:00:00 Acquisition date : 23-FEB-2010 15:22:32
Sample ID : G1202041817 Sample quantity : 145.53 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA14 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.51 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	4.546E-02	1.445E-01	2.454E-01	1.654E-02	0.185
NA-22		1274.54	*	8.900E-03	1.896E-02	3.400E-02	2.221E-03	0.262
NA-24		1368.53	*	4.234E-05	1.896E-02	Half-Life too short		
AL-26		1129.67		-2.260E-01	7.451E-01	1.144E+00	7.223E-02	-0.198
		1808.65	*	-1.186E-02	1.932E-02	2.539E-02	1.472E-03	-0.467
K-40		1460.81	*	9.326E-02	2.404E-01	4.377E-01	3.178E-02	0.213
TI-44		67.85		-1.886E-02	1.638E-02	2.323E-02	1.635E-03	-0.812
		78.38	*	-9.153E-03	1.208E-02	1.849E-02	1.444E-03	-0.495
SC-46		889.25	*	-9.709E-03	1.690E-02	2.546E-02	2.353E-03	-0.381
		1120.51		-2.486E-03	1.535E-02	2.444E-02	1.583E-03	-0.102
V-48		944.10		-2.027E-01	3.024E-01	4.429E-01	3.958E-02	-0.458
		983.50	*	7.021E-03	2.506E-02	4.363E-02	3.705E-03	0.161
		1312.09		5.345E-05	2.975E-02	4.891E-02	3.380E-03	0.001
CR-51		320.08	*	-4.281E-02	1.447E-01	2.334E-01	1.508E-02	-0.183
MN-52		744.21		-1.461E-02	4.594E-02	6.964E-02	4.915E-03	-0.210
		848.13		5.914E-01	1.629E+00	2.857E+00	2.455E-01	0.207
		935.52		-1.416E-02	5.274E-02	8.419E-02	7.599E-03	-0.168
		1246.25		-4.774E-01	1.372E+00	2.107E+00	1.313E-01	-0.227
		1333.61		-1.132E-01	1.001E+00	1.600E+00	1.140E-01	-0.071
		1434.06	*	-1.589E-03	6.341E-02	1.032E-01	7.235E-03	-0.015
MN-54		834.83	*	7.603E-03	1.795E-02	3.176E-02	2.664E-03	0.239
CO-56		846.75	*	2.658E-03	2.028E-02	3.456E-02	2.962E-03	0.077
		977.42		-5.981E-01	1.277E+00	1.951E+00	1.671E-01	-0.307
		1037.82		-9.894E-02	1.318E-01	1.872E-01	1.551E-02	-0.528
		1175.09		2.478E-01	7.918E-01	1.390E+00	7.683E-02	0.178
		1238.25		-2.334E-02	3.306E-02	4.760E-02	3.092E-03	-0.490
		1360.21		1.552E-02	4.109E-01	6.803E-01	4.833E-02	0.023
		1771.40		3.304E-02	1.417E-01	2.424E-01	1.446E-02	0.136
CO-57		122.06	*	5.665E-03	1.038E-02	1.744E-02	1.241E-03	0.325
		136.48		-1.574E-02	8.422E-02	1.330E-01	9.764E-03	-0.118
CO-58		810.76	*	-4.127E-03	1.808E-02	2.787E-02	2.243E-03	-0.148
FE-59		142.65		1.374E-01	1.155E+00	1.825E+00	1.144E-01	0.075
		192.34		9.847E-02	3.485E-01	5.991E-01	6.995E-02	0.164
		1099.22	*	5.775E-03	2.927E-02	5.059E-02	3.895E-03	0.114

Sample ID : G1202041817 Acquisition date : 23-FEB-2010 15:22:32

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.56		-2.327E-02	4.925E-02	7.261E-02	5.911E-03	-0.320
CO-60		1173.22		-1.254E-02	1.735E-02	2.414E-02	1.330E-03	-0.519
		1332.49	*	1.328E-03	1.717E-02	2.870E-02	2.045E-03	0.046
ZN-65		1115.52	*	-6.610E-03	3.394E-02	5.404E-02	3.552E-03	-0.122
GE-68		1077.35	*	5.839E-02	5.686E-01	9.598E-01	6.900E-02	0.061
AS-73		53.44	*	1.489E-01	2.162E-01	3.730E-01	2.432E-02	0.399
AS-74		595.88	*	-2.438E-02	3.747E-02	5.571E-02	3.332E-03	-0.438
		634.78		-1.843E-02	1.150E-01	1.813E-01	1.083E-02	-0.102
SE-75		66.05		-3.751E-01	1.601E+00	2.454E+00	2.231E-01	-0.153
		96.73		-6.426E-01	3.396E-01	4.541E-01	6.033E-02	-1.415
		121.11		4.353E-02	5.465E-02	9.344E-02	9.454E-03	0.466
		136.00		-1.204E-02	1.578E-02	2.361E-02	1.559E-03	-0.510
		198.60		-8.554E-01	8.286E-01	1.210E+00	8.381E-02	-0.707
		264.65	*	-1.093E-03	1.835E-02	3.049E-02	1.790E-03	-0.036
		279.53		1.104E-02	4.720E-02	8.027E-02	5.056E-03	0.137
		303.91		1.638E-02	8.996E-01	1.499E+00	1.433E-01	0.011
		400.65		-3.597E-02	1.264E-01	2.025E-01	1.803E-02	-0.178
BR-77		87.88		1.423E+00	8.745E+00	1.435E+01	1.254E+00	0.099
		200.40		1.611E+00	1.045E+01	1.778E+01	9.889E-01	0.091
		239.00		-2.158E-02	6.964E-01	1.189E+00	6.826E-02	-0.018
		249.79		-1.843E+00	4.090E+00	6.549E+00	3.783E-01	-0.281
		281.68		8.833E-01	5.900E+00	9.970E+00	5.815E-01	0.089
		297.23		-1.279E+00	3.400E+00	5.460E+00	3.184E-01	-0.234
		303.76		1.553E+00	1.206E+01	2.030E+01	1.183E+00	0.077
		439.47		-3.405E+00	9.682E+00	1.521E+01	8.600E-01	-0.224
		484.57		-5.472E+00	1.475E+01	2.288E+01	1.329E+00	-0.239
		520.65	*	-3.223E-01	8.436E-01	1.316E+00	7.757E-02	-0.245
		574.64		-2.218E+01	1.491E+01	1.860E+01	1.111E+00	-1.192
		578.91		-3.046E+00	6.243E+00	9.480E+00	5.662E-01	-0.321
		585.48		1.187E+01	1.232E+01	2.234E+01	1.335E+00	0.532
		755.35		-1.024E+01	1.033E+01	1.316E+01	9.491E-01	-0.778
		817.79		1.388E+00	9.748E+00	1.670E+01	1.357E+00	0.083
SR-82		698.33		2.319E+00	1.470E+01	2.425E+01	1.559E+00	0.096
		776.49	*	2.316E-02	1.680E-01	2.756E-01	2.072E-02	0.084
		1395.20		2.617E+00	3.735E+00	7.206E+00	5.091E-01	0.363
RB-83		520.41	*	-1.337E-02	3.500E-02	5.459E-02	3.218E-03	-0.245
		529.64		1.276E-02	4.310E-02	7.333E-02	4.336E-03	0.174
		552.65		-1.431E-03	9.408E-02	1.531E-01	9.105E-03	-0.009
RB-84		881.50	*	-1.030E-02	2.856E-02	4.499E-02	4.102E-03	-0.229
KR-85		513.99	*	-1.061E+01	5.865E+00	8.272E+00	4.865E-01	-1.282
SR-85		513.99	*	-5.081E-02	2.809E-02	3.962E-02	2.330E-03	-1.282
RB-86		1076.63	*	7.419E-02	2.872E-01	4.972E-01	3.580E-02	0.149
Y-88		898.02		-7.984E-03	2.059E-02	3.165E-02	2.982E-03	-0.252
		1836.01	*	2.213E-02	1.903E-02	3.997E-02	2.270E-03	0.554
ZR-88		392.90	*	-2.512E-03	1.320E-02	2.132E-02	1.161E-03	-0.118
Y-91		1204.90	*	-2.035E+00	7.341E+00	1.149E+01	6.687E-01	-0.177
NB-94		702.63	*	-6.093E-03	1.662E-02	2.539E-02	1.647E-03	-0.240
		871.10		6.434E-03	1.329E-02	2.416E-02	2.163E-03	0.266
NB-95		765.79	*	-6.014E-03	2.066E-02	3.138E-02	2.311E-03	-0.192

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M		235.69	*	-4.152E-02	5.193E-02	8.168E-02	6.104E-03	-0.508
ZR-95		724.18		9.335E-03	3.462E-02	5.842E-02	4.501E-03	0.160
		756.15	*	-2.098E-02	2.740E-02	3.720E-02	3.068E-03	-0.564
NB-97		657.90	*	-9.525E-07	2.740E-02	Half-Life too short		
		1024.50		-2.331E-04	2.740E-02	Half-Life too short		
ZR-97		254.15		5.049E-04	2.740E-02	Half-Life too short		
		355.39		-7.026E-04	2.740E-02	Half-Life too short		
		507.63	*	-5.221E-03	2.740E-02	Half-Life too short		
		602.52		-5.143E-04	2.740E-02	Half-Life too short		
		1021.30		2.748E-03	2.740E-02	Half-Life too short		
		1147.95		2.124E-03	2.740E-02	Half-Life too short		
		1362.66		-1.314E-03	2.740E-02	Half-Life too short		
		1750.46		-3.016E-03	2.740E-02	Half-Life too short		
MO-99		140.51		-1.187E+00	2.300E+00	3.502E+00	9.481E-01	-0.339
		181.06		-1.964E+00	1.534E+00	2.291E+00	3.900E-01	-0.857
		366.43		3.161E+00	7.810E+00	1.345E+01	7.546E-01	0.235
		739.58	*	3.532E-01	1.024E+00	1.743E+00	2.496E-01	0.203
		778.00		1.312E+00	3.504E+00	5.937E+00	4.477E-01	0.221
TC-99M		140.51	*	-1.490E+02	3.504E+00	Half-Life too short		
RH-101		127.23		-6.193E-04	1.232E-02	1.972E-02	1.357E-03	-0.031
		198.01	*	-1.168E-02	1.579E-02	2.372E-02	1.316E-03	-0.492
		325.23		-5.878E-02	9.872E-02	1.541E-01	8.918E-03	-0.381
RH-102		418.52		4.689E-02	1.368E-01	2.336E-01	1.301E-02	0.201
		475.06	*	-1.231E-02	1.420E-02	2.072E-02	1.197E-03	-0.594
		631.29		1.357E-02	2.577E-02	4.100E-02	2.450E-03	0.331
		697.49		-1.616E-02	4.163E-02	6.375E-02	4.091E-03	-0.254
		766.84		-1.361E-02	5.591E-02	8.560E-02	6.317E-03	-0.159
		1046.59		-5.942E-02	4.894E-02	5.994E-02	4.587E-03	-0.991
		1112.84		3.783E-02	8.976E-02	1.599E-01	1.057E-02	0.237
RU-103		497.08	*	1.138E-02	1.716E-02	3.027E-02	3.833E-03	0.376
		610.33		-1.472E-01	3.898E-01	5.990E-01	9.278E-02	-0.246
RH-106		511.85		-1.860E-01	1.435E-01	2.573E-01	1.512E-02	-0.723
		621.84	*	4.628E-02	1.481E-01	2.509E-01	2.968E-02	0.184
		1050.47		4.783E-01	9.530E-01	1.725E+00	1.311E-01	0.277
RU-106		511.85		-1.860E-01	1.435E-01	2.573E-01	1.512E-02	-0.723
		621.84	*	4.628E-02	1.480E-01	2.509E-01	1.500E-02	0.184
		1050.47		4.783E-01	9.530E-01	1.725E+00	1.311E-01	0.277
AG-108M		433.93	*	1.166E-03	1.329E-02	2.212E-02	1.359E-03	0.053
		614.37		-1.824E-03	1.929E-02	3.093E-02	1.998E-03	-0.059
		722.95		-8.378E-03	1.717E-02	2.523E-02	1.813E-03	-0.332
CD-109		88.03	*	-3.533E-01	2.920E-01	4.271E-01	3.735E-02	-0.827
AG-110M		657.75	*	-8.735E-04	1.623E-02	2.607E-02	1.647E-03	-0.034
		677.61		-6.940E-02	1.425E-01	2.123E-01	1.378E-02	-0.327
		706.67		-7.911E-02	1.053E-01	1.510E-01	1.034E-02	-0.524
		763.93		8.253E-03	7.675E-02	1.255E-01	9.567E-03	0.066
		884.67		6.789E-03	2.183E-02	3.833E-02	3.614E-03	0.177
		937.48		1.245E-02	5.143E-02	8.904E-02	8.285E-03	0.140
		1384.27		-5.302E-02	7.772E-02	1.059E-01	7.808E-03	-0.501
IN-111		171.28		-1.597E-02	8.730E-02	1.371E-01	7.394E-03	-0.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	6.332E-03	9.300E-02	1.565E-01	9.021E-03	0.040
IN-113M		391.69	*	4.335E-03	1.905E-02	3.224E-02	1.886E-03	0.134
SN-113		391.69	*	4.335E-03	1.905E-02	3.224E-02	1.886E-03	0.134
IN-114M		190.27	*	-1.381E-01	7.575E-02	1.099E-01	6.050E-03	-1.256
CD-115		260.90		-9.656E-01	7.957E+00	1.316E+01	7.637E-01	-0.073
		492.35		-6.937E-01	2.250E+00	3.534E+00	2.060E-01	-0.196
		527.90	*	1.834E-01	6.471E-01	1.098E+00	6.487E-02	0.167
SN-117M		156.02		-3.963E-01	6.664E-01	1.008E+00	5.803E-02	-0.393
		158.56	*	5.556E-03	1.700E-02	2.795E-02	1.581E-03	0.199
SB-122		563.90	*	5.291E-03	1.845E-01	3.018E-01	1.799E-02	0.018
		692.80		-1.266E+00	4.302E+00	6.665E+00	4.235E-01	-0.190
I-123		159.00	*	4.147E-04	4.302E+00	Half-Life too short		
		528.96		1.775E-02	4.302E+00	Half-Life too short		
TE-123M		159.00	*	7.224E-03	1.200E-02	2.014E-02	1.152E-03	0.359
I-124		602.71	*	5.167E-04	1.353E-01	2.199E-01	1.316E-02	0.002
		722.78		-3.157E-01	6.102E-01	8.905E-01	6.019E-02	-0.355
		1325.50		3.794E+00	5.368E+00	1.009E+01	7.119E-01	0.376
		1376.25		-2.059E+00	5.454E+00	8.249E+00	5.846E-01	-0.250
		1509.49		7.795E-01	2.777E+00	4.821E+00	3.307E-01	0.162
		1691.02		-8.250E-02	8.567E-01	1.356E+00	8.545E-02	-0.061
SB-124		602.71		8.158E-05	2.136E-02	3.472E-02	2.078E-03	0.002
		645.85		-1.812E-01	2.239E-01	3.161E-01	2.115E-02	-0.573
		709.31		6.967E-01	1.309E+00	2.266E+00	1.490E-01	0.308
		713.82		5.233E-01	7.387E-01	1.310E+00	1.403E-01	0.399
		722.78		-7.226E-02	1.397E-01	2.038E-01	1.426E-02	-0.355
		968.20		-2.895E-01	9.571E-01	1.512E+00	1.311E-01	-0.192
		1045.16		-7.706E-01	9.918E-01	1.391E+00	1.068E-01	-0.554
		1325.50		9.275E-01	1.312E+00	2.467E+00	1.740E-01	0.376
		1368.21		-3.724E-02	8.699E-01	1.414E+00	1.775E-01	-0.026
		1436.60		2.549E-01	1.993E+00	3.345E+00	2.343E-01	0.076
		1691.02	*	-4.454E-03	4.625E-02	7.321E-02	4.949E-03	-0.061
SB-125		427.89	*	1.925E-03	4.324E-02	7.151E-02	4.191E-03	0.027
		463.38		-3.110E-02	1.184E-01	1.877E-01	1.260E-02	-0.166
		600.56		4.571E-02	1.053E-01	1.788E-01	1.228E-02	0.256
		635.90		-6.776E-02	1.198E-01	1.758E-01	1.220E-02	-0.385
TE-125M		109.28	*	4.410E-01	3.469E+00	5.655E+00	5.300E-01	0.078
I-126		388.63		-1.928E-02	5.979E-02	9.479E-02	5.178E-03	-0.203
		666.33	*	2.232E-02	5.851E-02	9.998E-02	6.005E-03	0.223
		753.82		-8.125E-02	4.137E-01	6.401E-01	4.604E-02	-0.127
SB-126		223.80		1.175E-01	1.156E+00	1.955E+00	1.111E-01	0.060
		278.60		2.618E-02	7.554E-01	1.264E+00	7.367E-02	0.021
		296.50		-1.778E-01	4.165E-01	6.662E-01	3.886E-02	-0.267
		414.70		2.488E-03	2.406E-02	4.010E-02	2.225E-03	0.062
		415.30		2.279E-01	2.035E+00	3.393E+00	1.884E-01	0.067
		555.20		8.095E-01	1.425E+00	2.482E+00	1.477E-01	0.326
		573.80		-4.300E-01	3.390E-01	4.436E-01	2.648E-02	-0.969
		593.00		3.172E-02	2.801E-01	4.632E-01	2.770E-02	0.068
		656.30		-5.130E-01	1.091E+00	1.637E+00	9.747E-02	-0.313
		666.33		9.188E-03	2.409E-02	4.116E-02	2.472E-03	0.223

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		675.00		-2.210E-01	6.022E-01	9.127E-01	5.585E-02	-0.242
		695.00		-5.466E-03	2.789E-02	4.382E-02	2.797E-03	-0.125
		697.00		-5.569E-02	1.017E-01	1.521E-01	9.747E-03	-0.366
		720.50	*	1.597E-02	3.690E-02	6.442E-02	4.334E-03	0.248
		856.80		1.553E-02	1.370E-01	2.339E-01	2.041E-02	0.066
		989.30		-1.172E-01	3.832E-01	6.021E-01	5.070E-02	-0.195
		1034.80		7.710E-01	2.583E+00	4.527E+00	3.541E-01	0.170
		1213.00		-8.326E-01	1.409E+00	2.072E+00	1.222E-01	-0.402
SN-126		64.28		-7.787E-02	1.754E-01	2.843E-01	4.051E-02	-0.274
		86.94		7.645E-02	1.129E-01	1.854E-01	7.669E-02	0.412
		87.57	*	1.012E-02	2.633E-02	4.392E-02	3.822E-03	0.230
SB-127		61.10		1.049E-01	5.624E+00	9.184E+00	7.190E-01	0.011
		252.40		-3.258E-01	5.969E-01	9.236E-01	3.799E-01	-0.353
		290.80		4.396E-01	3.063E+00	5.165E+00	3.671E-01	0.085
		411.60		2.187E-01	1.666E+00	2.786E+00	3.631E-01	0.078
		444.90		3.951E-01	1.462E+00	2.475E+00	2.230E-01	0.160
		473.00		-1.007E-01	2.512E-01	3.913E-01	3.728E-02	-0.257
		543.00		6.559E-01	1.953E+00	3.358E+00	3.892E-01	0.195
		603.60		-6.446E-01	2.180E+00	3.430E+00	3.146E-01	-0.188
		685.20	*	-9.340E-02	2.190E-01	3.319E-01	2.584E-02	-0.281
		698.50		3.850E-01	2.442E+00	4.027E+00	5.455E-01	0.096
		722.20		-1.543E-03	3.575E+00	5.765E+00	4.541E-01	0.000
		783.80		-2.810E-01	5.854E-01	8.703E-01	8.885E-02	-0.323
XE-127		57.60		-1.313E+00	1.521E+00	2.291E+00	1.509E-01	-0.573
		145.22		2.024E-01	2.830E-01	4.666E-01	2.879E-02	0.434
		172.10		-2.325E-03	4.545E-02	7.224E-02	3.899E-03	-0.032
		202.84	*	-1.201E-03	1.897E-02	3.031E-02	1.690E-03	-0.040
		374.96		-4.371E-02	8.117E-02	1.262E-01	7.014E-03	-0.346
I-131		80.18		-3.337E-01	8.835E-01	1.392E+00	1.112E-01	-0.240
		284.30		-2.873E-01	3.779E-01	5.835E-01	3.752E-02	-0.492
		364.48	*	9.394E-04	3.187E-02	5.289E-02	3.314E-03	0.018
		636.97		-2.495E-01	4.080E-01	5.960E-01	3.934E-02	-0.419
		722.89		-8.234E-01	1.652E+00	2.422E+00	1.643E-01	-0.340
TE-132		49.72		-9.663E-01	1.364E+00	2.100E+00	1.569E-01	-0.460
		111.76		1.356E+00	3.182E+00	5.297E+00	4.393E-01	0.256
		116.30		-1.100E+00	3.009E+00	4.705E+00	3.845E-01	-0.234
		228.16	*	-3.986E-02	7.186E-02	1.145E-01	1.518E-02	-0.348
BA-133		53.15		6.780E-01	9.761E-01	1.686E+00	1.098E-01	0.402
		79.62		-1.227E-01	4.313E-01	6.843E-01	1.015E-01	-0.179
		81.00		-2.335E-02	3.360E-02	5.133E-02	7.992E-03	-0.455
		276.40		-2.501E-02	1.632E-01	2.685E-01	3.484E-02	-0.093
		302.84		1.558E-02	6.196E-02	1.055E-01	1.231E-02	0.148
		356.01	*	-6.077E-03	1.867E-02	2.978E-02	3.423E-03	-0.204
		383.85		-4.070E-03	1.338E-01	2.203E-01	2.360E-02	-0.018
I-133		510.53		-1.479E-03	1.338E-01	Half-Life too short		
		529.87	*	-3.583E-06	1.338E-01	Half-Life too short		
		706.58		-1.020E-03	1.338E-01	Half-Life too short		
		856.28		-1.656E-04	1.338E-01	Half-Life too short		
		875.33		-8.335E-05	1.338E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1236.41		-7.497E-04	1.338E-01	Half-Life too short		
		1298.22		2.375E-04	1.338E-01	Half-Life too short		
CS-134		475.35		-3.253E-01	8.904E-01	1.392E+00	8.047E-02	-0.234
		563.23		-2.084E-02	1.740E-01	2.791E-01	1.696E-02	-0.075
		569.32		-4.336E-02	1.181E-01	1.787E-01	1.096E-02	-0.243
		604.70		3.798E-03	1.955E-02	3.241E-02	1.949E-03	0.117
		795.84	*	7.539E-03	2.142E-02	3.633E-02	2.860E-03	0.207
		801.93		-1.014E-01	2.201E-01	3.194E-01	2.538E-02	-0.317
		1038.57		-4.507E-01	1.716E+00	2.714E+00	2.109E-01	-0.166
		1167.94		5.804E-01	8.692E-01	1.635E+00	9.169E-02	0.355
		1365.15		-2.933E-01	5.974E-01	8.635E-01	6.538E-02	-0.340
CS-135		268.24	*	-6.033E-04	6.572E-02	1.096E-01	8.410E-03	-0.006
I-135		288.45		-8.265E+01	6.572E-02	Half-Life too short		
		417.63		3.801E+02	6.572E-02	Half-Life too short		
		546.56		1.175E+02	6.572E-02	Half-Life too short		
		836.80		-2.569E+02	6.572E-02	Half-Life too short		
		1038.76		-1.980E+02	6.572E-02	Half-Life too short		
		1124.00		1.084E+03	6.572E-02	Half-Life too short		
		1131.51		1.346E+01	6.572E-02	Half-Life too short		
		1260.41	*	1.438E+02	6.572E-02	Half-Life too short		
		1457.56		-1.045E+03	6.572E-02	Half-Life too short		
		1678.03		-4.617E+02	6.572E-02	Half-Life too short		
		1706.46		-5.872E+02	6.572E-02	Half-Life too short		
		1791.20		-4.412E+01	6.572E-02	Half-Life too short		
CS-136		66.91		-1.792E-01	1.996E-01	2.888E-01	4.211E-02	-0.621
		86.29		1.426E-01	2.522E-01	4.253E-01	5.449E-02	0.335
		153.22		1.249E-02	1.808E-01	2.914E-01	2.118E-02	0.043
		163.89		-1.089E-01	3.560E-01	5.285E-01	3.681E-02	-0.206
		176.55		8.231E-03	1.154E-01	1.852E-01	1.144E-02	0.044
		273.65		2.763E-02	1.383E-01	2.347E-01	1.556E-02	0.118
		340.57		2.725E-02	3.840E-02	6.791E-02	4.143E-03	0.401
		818.51		-3.710E-03	2.661E-02	4.380E-02	3.566E-03	-0.085
		1048.07	*	1.133E-02	3.347E-02	5.889E-02	4.733E-03	0.192
		1235.34		-5.891E-02	1.441E-01	2.167E-01	2.204E-02	-0.272
BA-137M		661.65	*	4.906E-03	1.718E-02	2.893E-02	1.720E-03	0.170
CS-137		661.65	*	5.186E-03	1.816E-02	3.058E-02	1.826E-03	0.170
CE-139		165.85	*	-1.003E-03	1.199E-02	1.901E-02	1.021E-03	-0.053
BA-140		162.64		-1.058E-01	2.581E-01	3.818E-01	2.387E-02	-0.277
		304.84		2.249E-01	4.142E-01	7.149E-01	1.951E-01	0.315
		423.70		-1.909E-01	6.512E-01	1.032E+00	3.277E-01	-0.185
		537.32	*	6.769E-02	8.853E-02	1.453E-01	4.729E-02	0.466
LA-140		328.77		-1.195E-02	8.948E-02	1.465E-01	9.490E-03	-0.082
		432.53		3.731E-01	6.206E-01	1.096E+00	6.847E-02	0.341
		487.03		-4.058E-03	4.140E-02	6.688E-02	4.400E-03	-0.061
		751.79		3.083E-01	4.488E-01	8.176E-01	6.745E-02	0.377
		815.85		6.147E-02	1.073E-01	1.946E-01	1.780E-02	0.316
		867.82		-1.790E-01	3.719E-01	5.626E-01	5.256E-02	-0.318
		919.63		1.351E-01	7.304E-01	1.265E+00	1.405E-01	0.107
		925.24		5.403E-02	2.983E-01	5.161E-01	4.976E-02	0.105

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1596.49	*	2.191E-02	2.888E-02	5.591E-02	3.706E-03	0.392
CE-141		145.44	*	3.101E-02	2.348E-02	4.140E-02	2.642E-03	0.749
CE-143		57.37		-9.325E+00	1.140E+01	1.722E+01	1.456E+00	-0.541
		231.56		-6.274E-01	4.109E+01	6.879E+01	2.132E+01	-0.009
		293.26	*	1.417E+00	2.227E+00	3.878E+00	7.994E-01	0.366
		350.59		2.758E+01	2.968E+01	5.144E+01	1.565E+01	0.536
		490.36		1.375E+01	4.801E+01	8.133E+01	2.523E+01	0.169
		664.57		-1.589E+00	2.357E+01	3.777E+01	1.201E+01	-0.042
		721.93		2.042E+00	2.080E+01	3.413E+01	9.815E+00	0.060
CE-144		80.11		-2.643E-01	6.996E-01	1.102E+00	8.776E-02	-0.240
		133.54	*	-5.938E-03	8.094E-02	1.292E-01	1.881E-02	-0.046
PM-144		476.78		1.520E-02	3.264E-02	5.635E-02	3.904E-03	0.270
		618.01		6.729E-03	1.579E-02	2.706E-02	1.710E-03	0.249
		696.49	*	-5.520E-03	1.756E-02	2.712E-02	1.737E-03	-0.204
		778.57		1.783E-01	1.180E+00	1.940E+00	1.464E-01	0.092
PR-144		696.49	*	-3.728E-01	1.186E+00	1.831E+00	1.173E-01	-0.204
		1489.15		2.855E+00	4.690E+00	9.032E+00	6.237E-01	0.316
PM-146		453.90	*	6.982E-03	2.059E-02	3.512E-02	3.007E-03	0.199
		633.02		9.596E-02	5.887E-01	9.782E-01	3.605E-01	0.098
		735.90		-9.171E-03	6.719E-02	1.057E-01	2.974E-02	-0.087
		747.13		-2.547E-02	3.850E-02	5.374E-02	7.071E-03	-0.474
ND-147		91.11		1.155E-01	7.029E-02	1.245E-01	1.144E-02	0.928
		319.41		-4.945E-01	9.592E-01	1.507E+00	8.745E-02	-0.328
		439.89		-2.364E-01	1.777E+00	2.875E+00	1.626E-01	-0.082
		531.02	*	-1.412E-01	1.753E-01	2.516E-01	3.415E-02	-0.561
PM-149		285.90	*	-2.068E+00	5.243E+00	8.396E+00	1.190E+00	-0.246
EU-152		121.78		2.630E-02	3.055E-02	5.251E-02	4.542E-03	0.501
		244.69		2.377E-02	1.383E-01	2.348E-01	1.353E-02	0.101
		344.27	*	-2.244E-02	4.474E-02	7.031E-02	4.549E-03	-0.319
		443.98		4.465E-01	4.594E-01	8.344E-01	4.732E-02	0.535
		778.89		1.553E-02	1.400E-01	2.288E-01	1.728E-02	0.068
		867.32		-1.514E-01	3.146E-01	4.759E-01	4.232E-02	-0.318
		964.01		4.216E-02	1.120E-01	1.984E-01	1.730E-02	0.212
		1085.78		-6.293E-02	1.871E-01	2.919E-01	2.059E-02	-0.216
		1112.02		5.029E-02	1.269E-01	2.252E-01	1.491E-02	0.223
		1407.95		7.659E-02	1.062E-01	1.963E-01	1.383E-02	0.390
GD-153		69.67		-3.480E-01	5.272E-01	8.141E-01	5.821E-02	-0.427
		83.37		-2.020E+00	5.372E+00	8.076E+00	6.677E-01	-0.250
		97.43	*	-4.752E-02	3.390E-02	4.643E-02	3.723E-03	-1.023
		103.18		1.876E-02	3.750E-02	6.319E-02	4.875E-03	0.297
EU-154		123.07		4.701E-04	2.163E-02	3.488E-02	3.569E-03	0.013
		247.94		6.300E-03	1.531E-01	2.571E-01	2.448E-02	0.025
		591.81		-2.345E-01	2.904E-01	4.131E-01	4.082E-02	-0.568
		723.30		1.069E-02	6.637E-02	1.102E-01	8.697E-03	0.097
		756.87		-2.632E-01	3.169E-01	4.208E-01	4.638E-02	-0.626
		873.19		-4.096E-02	1.295E-01	2.048E-01	2.561E-02	-0.200
		996.32		-1.264E-01	1.644E-01	2.321E-01	4.092E-02	-0.545
		1004.76		9.178E-02	1.018E-01	1.915E-01	2.174E-02	0.479
		1274.45	*	2.591E-02	5.336E-02	9.588E-02	9.401E-03	0.270

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155		48.70		3.318E-01	6.465E-01	1.100E+00	7.052E-02	0.302
		60.01		-3.739E-01	1.510E+00	2.415E+00	1.606E-01	-0.155
		86.54		2.311E-02	3.176E-02	5.428E-02	4.711E-03	0.426
		105.31	*	-4.433E-02	4.068E-02	5.893E-02	4.561E-03	-0.752
TB-160		86.79		5.148E-02	7.973E-02	1.355E-01	1.168E-02	0.380
		197.04		7.891E-02	2.253E-01	3.888E-01	2.155E-02	0.203
		215.65		2.952E-01	2.998E-01	5.397E-01	3.045E-02	0.547
		298.57		-2.088E-02	4.410E-02	7.001E-02	4.083E-03	-0.298
		879.36	*	3.526E-02	6.160E-02	1.118E-01	1.015E-02	0.315
		962.29		5.628E-02	1.970E-01	3.440E-01	3.006E-02	0.164
		966.15		-1.477E-02	7.370E-02	1.186E-01	1.031E-02	-0.125
		1177.93		9.324E-02	1.323E-01	2.471E-01	1.372E-02	0.377
		1271.85		-6.118E-02	2.870E-01	4.512E-01	2.929E-02	-0.136
HO-166M		80.57		-5.289E-02	9.182E-02	1.423E-01	1.139E-02	-0.372
		184.41		4.107E-03	1.690E-02	2.885E-02	1.578E-03	0.142
		280.46		1.588E-02	3.684E-02	6.376E-02	3.718E-03	0.249
		410.95		3.644E-02	1.050E-01	1.800E-01	9.956E-03	0.202
		711.68	*	3.707E-02	3.094E-02	5.773E-02	3.815E-03	0.642
		752.31		5.450E-02	1.031E-01	1.830E-01	1.312E-02	0.298
		810.29		-9.955E-03	2.848E-02	4.288E-02	3.437E-03	-0.232
TM-171		51.35		-3.070E+00	8.633E+00	1.370E+01	8.885E-01	-0.224
		52.39		2.231E+00	4.322E+00	7.360E+00	4.786E-01	0.303
		59.40		-1.056E+00	7.684E+00	1.239E+01	8.211E-01	-0.085
		66.72	*	-6.513E+00	9.872E+00	1.464E+01	1.021E+00	-0.445
LU-176		88.36		-1.012E-01	6.855E-02	9.757E-02	8.501E-03	-1.037
		201.83		-1.120E-03	1.295E-02	2.062E-02	1.148E-03	-0.054
		306.84	*	4.911E-03	1.144E-02	1.977E-02	1.151E-03	0.248
		401.10		-9.764E-01	3.429E+00	5.493E+00	3.013E-01	-0.178
LU-177		112.95		2.986E-01	3.544E-01	6.069E-01	4.457E-02	0.492
		208.36	*	1.117E-01	2.173E-01	3.797E-01	2.128E-02	0.294
LU-177M		52.97		3.516E-01	4.244E-01	7.407E-01	4.823E-02	0.475
		54.07		1.245E-01	2.289E-01	3.907E-01	2.551E-02	0.319
		61.30		1.501E-02	4.543E-01	7.426E-01	4.978E-02	0.020
		121.62		9.617E-02	1.557E-01	2.629E-01	1.870E-02	0.366
		147.16		-3.072E-01	2.815E-01	4.090E-01	2.494E-02	-0.751
		171.86		-1.028E-02	2.015E-01	3.202E-01	1.728E-02	-0.032
		218.09		-1.706E-01	3.596E-01	5.811E-01	3.285E-02	-0.294
		268.79		-8.135E-02	3.222E-01	5.256E-01	3.058E-02	-0.155
		319.02		-3.127E-02	1.039E-01	1.670E-01	9.688E-03	-0.187
		367.43		-2.484E-02	4.184E-01	6.877E-01	3.855E-02	-0.036
		413.65	*	-3.267E-02	7.830E-02	1.228E-01	6.806E-03	-0.266
HF-181		56.28		-2.179E-01	2.414E-01	3.623E-01	2.377E-02	-0.601
		57.53		-1.145E-01	1.300E-01	1.954E-01	1.286E-02	-0.586
		65.20		1.423E-01	2.967E-01	4.797E-01	3.305E-02	0.297
		133.02		-3.856E-03	2.380E-02	3.770E-02	2.505E-03	-0.102
		136.25		-9.294E-02	1.712E-01	2.617E-01	1.706E-02	-0.355
		345.85		-8.020E-02	7.962E-02	1.178E-01	6.730E-03	-0.681
		482.03	*	-9.628E-03	1.783E-02	2.714E-02	1.574E-03	-0.355
W-181		56.28		-9.136E-02	1.012E-01	1.519E-01	9.969E-03	-0.601

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		57.53		-4.809E-02	5.455E-02	8.198E-02	5.398E-03	-0.587
		65.20	*	5.926E-02	1.235E-01	1.997E-01	1.376E-02	0.297
TA-182		67.75		-4.280E-02	3.763E-02	5.344E-02	3.758E-03	-0.801
		100.10		-7.961E-03	6.814E-02	1.040E-01	8.182E-03	-0.077
		152.43		7.137E-02	1.243E-01	2.095E-01	1.235E-02	0.341
		222.10		-2.866E-02	1.393E-01	2.298E-01	1.303E-02	-0.125
		1001.68		2.863E-01	1.002E+00	1.536E+00	1.269E-01	0.186
		1121.28		-1.543E-02	4.977E-02	7.714E-02	4.985E-03	-0.200
		1189.05		-9.188E-02	1.088E-01	1.443E-01	8.170E-03	-0.637
		1221.42	*	-9.970E-02	8.210E-02	1.030E-01	6.161E-03	-0.968
		1230.97		-8.764E-02	1.857E-01	2.789E-01	1.695E-02	-0.314
RE-183		57.98		-4.399E-02	5.381E-02	8.150E-02	5.374E-03	-0.540
		59.32		-4.663E-03	2.977E-02	4.794E-02	3.175E-03	-0.097
		67.20		-5.697E-02	6.585E-02	9.590E-02	6.713E-03	-0.594
		162.32	*	-2.756E-02	5.034E-02	7.355E-02	4.051E-03	-0.375
		208.81		1.725E-01	3.572E-01	6.228E-01	3.492E-02	0.277
		291.72		9.390E-02	4.027E-01	6.841E-01	3.992E-02	0.137
RE-184		57.98		-1.683E-01	2.059E-01	3.118E-01	2.056E-02	-0.540
		59.32		-1.783E-02	1.138E-01	1.833E-01	1.214E-02	-0.097
		67.20		-2.179E-01	2.518E-01	3.668E-01	2.567E-02	-0.594
		161.27		1.457E-01	1.519E-01	2.616E-01	1.452E-02	0.557
		216.55		3.082E-02	1.117E-01	1.914E-01	1.081E-02	0.161
		252.85	*	-3.550E-02	9.442E-02	1.524E-01	8.814E-03	-0.233
		318.01		2.346E-02	1.849E-01	3.113E-01	1.807E-02	0.075
		792.07		-3.756E-01	5.142E-01	7.325E-01	5.674E-02	-0.513
		903.28		-1.700E-01	4.693E-01	7.404E-01	6.911E-02	-0.230
		920.93		5.746E-02	1.633E-01	2.914E-01	2.673E-02	0.197
OS-185		59.72		-3.707E-02	8.513E-02	1.340E-01	8.895E-03	-0.277
		61.14		1.054E-03	4.895E-02	7.995E-02	5.353E-03	0.013
		69.30		-9.071E-02	9.211E-02	1.382E-01	9.852E-03	-0.656
		592.07		-7.694E-01	1.104E+00	1.602E+00	9.577E-02	-0.480
		646.12	*	-1.149E-02	1.933E-02	2.839E-02	1.693E-03	-0.405
		717.42		-3.796E-01	3.859E-01	5.109E-01	3.416E-02	-0.743
		874.81		-5.884E-02	2.460E-01	3.951E-01	3.560E-02	-0.149
		880.27		6.651E-03	3.507E-01	5.887E-01	5.356E-02	0.011
RE-188		155.03	*	-7.146E-02	6.638E-02	9.550E-02	5.534E-03	-0.748
		477.96		8.076E-01	1.395E+00	2.439E+00	1.412E-01	0.331
		633.10		1.683E-01	1.114E+00	1.850E+00	1.105E-01	0.091
W-188		63.58		-6.166E+00	1.697E+01	2.771E+01	1.886E+00	-0.223
		227.08		-2.421E+00	4.943E+00	7.942E+00	4.522E-01	-0.305
		290.67	*	4.197E-01	3.187E+00	5.369E+00	3.133E-01	0.078
IR-192		295.96		-1.939E-03	4.211E-02	6.981E-02	4.136E-03	-0.028
		308.46		1.041E-03	4.182E-02	6.970E-02	4.103E-03	0.015
		316.51	*	-9.771E-03	1.415E-02	2.180E-02	1.272E-03	-0.448
		468.07		6.878E-03	2.728E-02	4.618E-02	3.070E-03	0.149
		604.41		1.633E-02	2.525E-01	4.130E-01	4.726E-02	0.040
		612.46		-1.591E-02	3.472E-01	5.607E-01	4.325E-02	-0.028
AU-195		65.12		2.869E-02	5.799E-02	9.385E-02	6.462E-03	0.306
		66.83		-2.092E-02	3.208E-02	4.759E-02	3.321E-03	-0.440

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		75.70		4.608E-02	5.976E-02	1.021E-01	7.741E-03	0.452
		98.88	*	-6.544E-02	9.020E-02	1.306E-01	1.036E-02	-0.501
		129.76		9.151E-02	1.104E+00	1.787E+00	1.211E-01	0.051
TL-200		367.94	*	-1.260E+00	3.550E+00	5.653E+00	3.167E-01	-0.223
		579.30		-5.404E+00	2.610E+01	4.125E+01	2.464E+00	-0.131
		828.27		-3.774E+01	3.990E+01	5.730E+01	4.749E+00	-0.659
		1205.75		5.324E+00	1.645E+01	2.870E+01	1.672E+00	0.186
TL-201		68.90		-3.053E-01	3.495E-01	5.291E-01	3.758E-02	-0.577
		70.82		1.798E-02	2.022E-01	3.310E-01	2.392E-02	0.054
		80.30		-1.455E-01	3.852E-01	6.069E-01	4.842E-02	-0.240
		135.34		-2.766E+00	2.465E+00	3.558E+00	2.332E-01	-0.777
		167.43	*	-4.296E-01	6.756E-01	1.016E+00	5.456E-02	-0.423
TL-202		68.90		-8.311E-02	9.515E-02	1.441E-01	1.023E-02	-0.577
		70.82		4.881E-03	5.489E-02	8.988E-02	6.495E-03	0.054
		80.30		-3.951E-02	1.046E-01	1.648E-01	1.315E-02	-0.240
		439.56	*	-6.126E-03	2.164E-02	3.432E-02	1.941E-03	-0.179
HG-203		70.83		2.948E-02	3.120E-01	5.110E-01	6.525E-02	0.058
		72.87		7.498E-02	1.860E-01	3.105E-01	3.857E-02	0.241
		82.60		4.721E-02	3.412E-01	5.593E-01	7.539E-02	0.084
		279.20	*	5.991E-03	1.618E-02	2.785E-02	1.723E-03	0.215
BI-207		72.80		2.310E-02	5.997E-02	1.001E-01	7.370E-03	0.231
		74.97		2.404E-02	3.384E-02	5.763E-02	4.338E-03	0.417
		84.90		3.304E-03	6.840E-02	1.061E-01	8.938E-03	0.031
		569.67		-8.238E-03	1.858E-02	2.786E-02	1.662E-03	-0.296
		1063.62	*	1.386E-02	2.474E-02	4.472E-02	3.310E-03	0.310
		1770.23		8.086E-02	3.185E-01	5.455E-01	3.258E-02	0.148
TL-207		81.07		-5.196E-02	7.391E-02	1.133E-01	9.121E-03	-0.459
		83.78		-9.970E-03	4.653E-02	7.089E-02	5.890E-03	-0.141
		94.90		8.634E-02	9.783E-02	1.671E-01	1.367E-02	0.517
		122.32		3.856E-02	7.456E-01	1.205E+00	9.459E-02	0.032
		144.24		3.249E-01	3.138E-01	5.281E-01	3.995E-02	0.615
		154.21		-7.492E-02	1.565E-01	2.392E-01	1.683E-02	-0.313
		269.46		-1.096E-02	8.046E-02	1.327E-01	8.070E-03	-0.083
		323.87	*	9.950E-02	2.946E-01	5.043E-01	8.327E-02	0.197
		338.28		6.332E-02	4.757E-01	7.470E-01	7.845E-02	0.085
		445.03		3.449E-01	1.099E+00	1.868E+00	1.906E-01	0.185
TL-208		277.35		-3.560E-02	1.610E-01	2.631E-01	2.782E-02	-0.135
		510.84		-1.054E-01	1.343E-01	2.467E-01	2.515E-02	-0.427
		583.14	*	1.887E-03	2.164E-02	3.280E-02	2.243E-03	0.058
		860.37		-4.769E-02	1.155E-01	1.792E-01	1.686E-02	-0.266
PO-209		260.50		8.802E-02	4.354E+00	7.287E+00	4.228E-01	0.012
		262.80		3.188E+00	1.152E+01	1.972E+01	1.145E+00	0.162
		896.60	*	-1.463E+00	3.704E+00	5.656E+00	5.293E-01	-0.259
BI-210		46.50	*	-2.857E+00	1.078E+00	1.498E+00	1.110E-01	-1.908
PB-210		46.50	*	-2.857E+00	1.078E+00	1.498E+00	1.110E-01	-1.908
PO-210		46.50	*	-2.857E+00	1.072E+00	1.498E+00	9.397E-02	-1.908
BI-211		72.87		4.151E-01	1.029E+00	1.719E+00	1.267E-01	0.241
		351.07	*	6.008E-02	1.015E-01	1.693E-01	1.072E-02	0.355
PB-211		404.84	*	-1.150E-01	4.410E-01	6.966E-01	4.341E-01	-0.165

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.08		-4.505E-02	9.710E-01	1.589E+00	9.818E-01	-0.028
		831.96		2.148E-01	6.244E-01	1.070E+00	6.702E-01	0.201
BI-212		727.18	*	-2.343E-02	1.188E-01	1.848E-01	1.572E-02	-0.127
		785.46		-1.916E-02	9.154E-01	1.466E+00	1.122E-01	-0.013
		1620.62		8.020E-02	7.123E-01	1.189E+00	7.791E-02	0.067
PB-212		74.81		5.725E-02	1.195E-01	2.003E-01	2.402E-02	0.286
		77.11		1.696E-02	6.646E-02	1.099E-01	8.462E-03	0.154
		87.30		5.904E-02	1.216E-01	2.042E-01	2.702E-02	0.289
		238.63	*	-1.434E-04	2.869E-02	4.906E-02	3.574E-03	-0.003
		300.09		-1.864E-01	3.208E-01	5.028E-01	4.158E-02	-0.371
PO-212		74.81		5.725E-02	1.195E-01	2.003E-01	2.402E-02	0.286
		77.11		1.696E-02	6.646E-02	1.099E-01	8.462E-03	0.154
		87.30		5.904E-02	1.216E-01	2.042E-01	2.702E-02	0.289
		115.19		-2.236E-01	1.516E+00	2.414E+00	1.756E-01	-0.093
		238.63	*	-1.434E-04	2.869E-02	4.906E-02	3.574E-03	-0.003
		300.09		-1.864E-01	3.208E-01	5.028E-01	4.158E-02	-0.371
BI-214		609.31	*	-1.049E-03	3.993E-02	6.402E-02	5.068E-03	-0.016
		1120.29		-2.840E-02	1.014E-01	1.575E-01	1.459E-02	-0.180
		1764.49		-6.735E-03	1.416E-01	2.378E-01	1.426E-02	-0.028
PB-214		74.81		9.865E-02	2.058E-01	3.451E-01	3.641E-02	0.286
		77.11		2.907E-02	1.139E-01	1.884E-01	2.041E-02	0.154
		87.30		1.011E-01	2.082E-01	3.497E-01	4.058E-02	0.289
		241.98		-1.887E-01	1.568E-01	2.366E-01	1.900E-02	-0.797
		295.21		4.062E-02	5.881E-02	1.037E-01	8.868E-03	0.392
		351.92	*	-6.067E-03	3.490E-02	5.400E-02	4.431E-03	-0.112
PO-214		74.81		9.865E-02	2.058E-01	3.451E-01	3.641E-02	0.286
		77.11		2.907E-02	1.139E-01	1.884E-01	2.041E-02	0.154
		87.30		1.011E-01	2.082E-01	3.497E-01	4.058E-02	0.289
		241.98		-1.887E-01	1.568E-01	2.366E-01	1.900E-02	-0.797
		295.21		4.062E-02	5.881E-02	1.037E-01	8.868E-03	0.392
		351.92	*	-6.067E-03	3.490E-02	5.400E-02	4.431E-03	-0.112
PO-215		81.07		-5.196E-02	7.391E-02	1.133E-01	9.121E-03	-0.459
		83.78		-9.970E-03	4.653E-02	7.089E-02	5.890E-03	-0.141
		94.90		8.634E-02	9.783E-02	1.671E-01	1.367E-02	0.517
		122.32		3.856E-02	7.456E-01	1.205E+00	9.459E-02	0.032
		144.24		3.249E-01	3.138E-01	5.281E-01	3.995E-02	0.615
		154.21		-7.492E-02	1.565E-01	2.392E-01	1.683E-02	-0.313
		269.46		-1.096E-02	8.046E-02	1.327E-01	8.070E-03	-0.083
		323.87	*	9.950E-02	2.946E-01	5.043E-01	8.327E-02	0.197
		338.28		6.332E-02	4.757E-01	7.470E-01	7.845E-02	0.085
		445.03		3.449E-01	1.099E+00	1.868E+00	1.906E-01	0.185
PO-216		74.81		5.725E-02	1.195E-01	2.003E-01	2.402E-02	0.286
		77.11		1.696E-02	6.646E-02	1.099E-01	8.462E-03	0.154
		87.30		5.904E-02	1.216E-01	2.042E-01	2.702E-02	0.289
		238.63	*	-1.434E-04	2.869E-02	4.906E-02	3.574E-03	-0.003
		300.09		-1.864E-01	3.208E-01	5.028E-01	4.158E-02	-0.371
PO-218		74.81		9.865E-02	2.058E-01	3.451E-01	3.641E-02	0.286
		77.11		2.907E-02	1.139E-01	1.884E-01	2.041E-02	0.154
		87.30		1.011E-01	2.082E-01	3.497E-01	4.058E-02	0.289

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		241.98		-1.887E-01	1.568E-01	2.366E-01	1.900E-02	-0.797
		295.21		4.062E-02	5.881E-02	1.037E-01	8.868E-03	0.392
		351.92	*	-6.067E-03	3.490E-02	5.400E-02	4.431E-03	-0.112
RN-219		271.23		2.140E-02	1.022E-01	1.737E-01	1.410E-02	0.123
		401.81	*	-8.776E-02	2.025E-01	3.181E-01	4.287E-02	-0.276
RN-220		549.76	*	-2.637E+00	1.204E+01	1.903E+01	1.131E+00	-0.139
RA-223		81.07		-5.196E-02	7.391E-02	1.133E-01	9.121E-03	-0.459
		83.78		-9.970E-03	4.653E-02	7.089E-02	5.890E-03	-0.141
		94.90		8.634E-02	9.783E-02	1.671E-01	1.367E-02	0.517
		122.32		3.856E-02	7.456E-01	1.205E+00	9.459E-02	0.032
		144.24		3.249E-01	3.138E-01	5.281E-01	3.995E-02	0.615
		154.21		-7.492E-02	1.565E-01	2.392E-01	1.683E-02	-0.313
		269.46		-1.096E-02	8.046E-02	1.327E-01	8.070E-03	-0.083
		323.87	*	9.950E-02	2.946E-01	5.043E-01	8.327E-02	0.197
		338.28		6.332E-02	4.757E-01	7.470E-01	7.845E-02	0.085
		445.03		3.449E-01	1.099E+00	1.868E+00	1.906E-01	0.185
RA-224		240.98	*	-9.766E-04	2.980E-01	4.988E-01	2.867E-02	-0.002
RA-226		609.31	*	-1.049E-03	3.993E-02	6.402E-02	5.068E-03	-0.016
		1120.29		-2.840E-02	1.014E-01	1.575E-01	1.459E-02	-0.180
		1764.49		-6.735E-03	1.416E-01	2.378E-01	1.426E-02	-0.028
AC-227		79.80		-1.629E-01	5.479E-01	8.674E-01	1.842E-01	-0.188
		236.00		-1.634E-02	1.017E-01	1.684E-01	1.753E-02	-0.097
		256.20	*	6.445E-02	1.686E-01	2.905E-01	4.055E-02	0.222
		286.10		-2.134E-01	6.673E-01	1.077E+00	1.247E-01	-0.198
		299.80		-5.407E-01	6.077E-01	9.122E-01	1.487E-01	-0.593
		304.40		3.046E-01	8.303E-01	1.425E+00	2.467E-01	0.214
		334.20		-6.009E-01	9.785E-01	1.507E+00	2.761E-01	-0.399
TH-227		79.80		-1.629E-01	5.479E-01	8.674E-01	1.866E-01	-0.188
		94.00		3.009E-01	9.276E-01	1.551E+00	3.356E-01	0.194
		236.00		-1.634E-02	1.017E-01	1.684E-01	1.518E-02	-0.097
		256.20	*	6.445E-02	1.687E-01	2.905E-01	4.909E-02	0.222
		286.10		-2.134E-01	7.003E-01	1.077E+00	1.079E+00	-0.198
		299.80		-5.407E-01	6.077E-01	9.122E-01	1.487E-01	-0.593
		304.40		3.046E-01	8.303E-01	1.425E+00	2.467E-01	0.214
		334.20		-6.009E-01	9.785E-01	1.507E+00	2.761E-01	-0.399
AC-228		338.32		1.960E-02	1.137E-01	1.787E-01	7.283E-02	0.110
		911.07	*	6.041E-02	6.832E-02	1.161E-01	1.363E-02	0.520
		969.11		-2.112E-02	9.907E-02	1.588E-01	3.709E-02	-0.133
RA-228		338.32		1.960E-02	1.137E-01	1.787E-01	7.283E-02	0.110
		911.07	*	6.041E-02	6.832E-02	1.161E-01	1.363E-02	0.520
		969.11		-2.112E-02	9.907E-02	1.588E-01	3.709E-02	-0.133
TH-228		74.81		5.775E-02	1.204E-01	2.020E-01	1.535E-02	0.286
		77.11		1.710E-02	6.703E-02	1.108E-01	8.535E-03	0.154
		87.30		5.955E-02	1.225E-01	2.059E-01	1.786E-02	0.289
		238.63	*	-1.447E-04	2.894E-02	4.949E-02	3.605E-03	-0.003
		300.09		-1.880E-01	3.417E-01	5.072E-01	2.989E-01	-0.371
TH-229		85.43		1.952E-02	6.834E-02	1.080E-01	9.157E-03	0.181
		88.47		-1.124E-01	4.373E-02	5.566E-02	4.844E-03	-2.019
		100.00		-8.594E-03	7.354E-02	1.122E-01	8.837E-03	-0.077

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		193.63	*	-4.993E-02	2.159E-01	3.572E-01	1.973E-02	-0.140
		210.97		-2.740E-01	3.100E-01	4.833E-01	2.715E-02	-0.567
TH-230		609.31	*	-1.049E-03	3.993E-02	6.402E-02	5.068E-03	-0.016
		1120.29		-2.840E-02	1.014E-01	1.574E-01	1.459E-02	-0.180
		1764.49		-6.734E-03	1.416E-01	2.378E-01	1.426E-02	-0.028
PA-231		283.67	*	-4.005E-01	6.755E-01	1.059E+00	1.461E-01	-0.378
		301.29		-4.310E-02	2.391E-01	3.908E-01	4.092E-02	-0.110
TH-231		81.07		-5.196E-02	7.391E-02	1.133E-01	9.121E-03	-0.459
		83.78		-9.970E-03	4.653E-02	7.089E-02	5.890E-03	-0.141
		94.90		8.634E-02	9.783E-02	1.671E-01	1.367E-02	0.517
		122.32		3.856E-02	7.456E-01	1.205E+00	9.459E-02	0.032
		144.24		3.249E-01	3.138E-01	5.281E-01	3.995E-02	0.615
		154.21		-7.492E-02	1.565E-01	2.392E-01	1.683E-02	-0.313
		269.46		-1.096E-02	8.046E-02	1.327E-01	8.070E-03	-0.083
		323.87	*	9.950E-02	2.946E-01	5.043E-01	8.327E-02	0.197
		338.28		6.332E-02	4.757E-01	7.470E-01	7.845E-02	0.085
		445.03		3.449E-01	1.099E+00	1.868E+00	1.906E-01	0.185
U-231		84.21		-9.637E-03	6.750E-01	1.043E+00	8.710E-02	-0.009
		92.29		-5.525E-02	3.202E-01	5.221E-01	4.371E-02	-0.106
		95.87	*	-4.479E-01	1.761E-01	2.275E-01	1.847E-02	-1.969
		108.00		-9.275E-02	2.771E-01	4.345E-01	3.264E-02	-0.213
TH-232		338.32		1.960E-02	1.134E-01	1.787E-01	1.027E-02	0.110
		911.07	*	6.041E-02	6.832E-02	1.161E-01	1.363E-02	0.520
		969.11		-2.112E-02	9.907E-02	1.588E-01	3.709E-02	-0.133
PA-233		75.28		4.208E-01	1.008E+00	1.682E+00	2.485E-01	0.250
		86.59		3.706E-01	5.253E-01	8.827E-01	2.367E-01	0.420
		300.12		-9.285E-02	1.664E-01	2.610E-01	3.511E-02	-0.356
		311.98	*	-9.250E-03	2.949E-02	4.753E-02	2.935E-03	-0.195
		340.50		1.877E-01	2.654E-01	4.638E-01	1.065E-01	0.405
		398.62		1.195E+00	1.079E+00	1.897E+00	4.891E-01	0.630
		415.76		4.241E-02	7.786E-01	1.290E+00	2.647E-01	0.033
PA-234		63.00		-3.709E-01	5.399E-01	8.584E-01	1.250E-01	-0.432
		94.67		8.260E-02	7.320E-02	1.258E-01	1.524E-02	0.657
		98.44		-1.684E-02	3.849E-02	5.552E-02	3.092E-02	-0.303
		99.86		-5.965E-02	1.891E-01	2.840E-01	2.238E-02	-0.210
		111.00		2.708E-02	7.776E-02	1.287E-01	1.449E-02	0.210
		131.20		3.699E-02	4.164E-02	7.184E-02	4.825E-03	0.515
		152.70		6.293E-02	1.241E-01	2.074E-01	3.285E-02	0.303
		186.00		1.409E-01	6.147E-01	1.046E+00	3.190E-01	0.135
		226.40		-3.425E-02	1.653E-01	2.723E-01	3.133E-02	-0.126
		227.20		-9.670E-02	1.773E-01	2.833E-01	1.613E-02	-0.341
		248.90		-4.572E-03	3.443E-01	5.752E-01	1.236E-01	-0.008
		293.70		1.974E-01	2.920E-01	5.115E-01	8.233E-02	0.386
		369.80		7.584E-03	3.954E-01	6.551E-01	1.360E-01	0.012
		568.70		-3.881E-01	6.181E-01	9.079E-01	5.416E-02	-0.428
		569.50		-7.313E-02	1.650E-01	2.473E-01	1.475E-02	-0.296
		574.00		-8.210E-01	6.946E-01	9.247E-01	5.520E-02	-0.888
		699.00		2.551E-01	3.574E-01	6.279E-01	1.143E-01	0.406
		706.10		-4.576E-01	5.555E-01	7.211E-01	3.190E-01	-0.635

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		733.00		-7.076E-02	1.549E-01	2.266E-01	4.892E-02	-0.312
		742.81		4.411E-01	6.359E-01	1.031E+00	6.908E-01	0.428
		796.30		1.663E-01	4.240E-01	7.198E-01	1.929E-01	0.231
		805.60		1.696E-01	4.626E-01	7.842E-01	2.389E-01	0.216
		819.60		-3.882E-01	5.940E-01	8.629E-01	3.272E-01	-0.450
		826.30		-1.161E-01	3.908E-01	6.206E-01	2.773E-01	-0.187
		831.60		2.001E-01	3.165E-01	5.653E-01	1.682E-01	0.354
		876.40		1.071E-01	3.977E-01	6.678E-01	6.868E-01	0.160
		880.51		-1.341E-02	1.304E-01	2.146E-01	1.953E-02	-0.062
		883.24		-5.608E-02	1.449E-01	2.195E-01	1.477E-01	-0.256
		899.00		1.591E-02	4.429E-01	7.285E-01	3.196E-01	0.022
		925.00		1.143E-01	4.292E-01	7.551E-01	6.894E-02	0.151
		926.50		-3.885E-02	6.898E-02	1.007E-01	2.563E-02	-0.386
		946.00	*	-6.498E-02	1.313E-01	1.985E-01	3.751E-02	-0.327
		949.00		1.676E-02	1.957E-01	3.312E-01	2.943E-02	0.051
		980.50		1.353E-02	3.279E-01	5.502E-01	4.692E-02	0.025
		1394.10		2.151E-01	5.393E-01	9.397E-01	6.099E-01	0.229
PA-234M		766.42		-1.385E+00	5.843E+00	8.880E+00	4.488E+00	-0.156
		1001.03	*	1.180E+00	2.128E+00	3.576E+00	3.457E-01	0.330
TH-234		63.29	*	-2.860E-01	4.611E-01	7.359E-01	1.265E-01	-0.389
		92.38		-3.743E-02	2.445E-01	3.990E-01	7.167E-02	-0.094
U-234		609.31	*	-1.049E-03	3.993E-02	6.402E-02	5.068E-03	-0.016
		1120.29		-2.840E-02	1.014E-01	1.574E-01	1.459E-02	-0.180
		1764.49		-6.734E-03	1.416E-01	2.378E-01	1.426E-02	-0.028
U-235		89.95		-1.229E+00	5.675E-01	5.350E-01	1.650E-01	-2.298
		93.35		1.027E-01	2.934E-01	4.900E-01	1.368E-01	0.210
		105.00		-3.157E-01	4.017E-01	5.841E-01	1.727E-01	-0.541
		143.76	*	1.036E-01	9.761E-02	1.627E-01	2.678E-02	0.637
		163.35		-1.168E-01	2.272E-01	3.307E-01	5.911E-02	-0.353
		185.71		7.816E-03	2.262E-02	3.883E-02	2.127E-03	0.201
		205.31		-7.976E-02	2.098E-01	3.414E-01	6.116E-02	-0.234
NP-236		94.67		6.319E-02	5.528E-02	9.550E-02	7.830E-03	0.662
		98.44		-1.272E-02	2.824E-02	4.198E-02	3.342E-03	-0.303
		111.00		2.048E-02	5.879E-02	9.738E-02	7.213E-03	0.210
		160.31	*	3.026E-02	3.493E-02	5.975E-02	3.339E-03	0.506
NP-237		86.50	*	5.720E-02	7.859E-02	1.329E-01	2.970E-02	0.430
		95.87		-1.151E+00	5.248E-01	5.847E-01	1.430E-01	-1.969
U-238		63.29	*	-2.860E-01	4.611E-01	7.359E-01	1.265E-01	-0.389
		92.38		-3.743E-02	2.444E-01	3.990E-01	3.338E-02	-0.094
NP-239		99.55		-2.967E-02	6.316E-02	9.346E-02	7.381E-03	-0.318
		117.00	*	-4.908E-02	8.266E-02	1.266E-01	9.153E-03	-0.388
		209.75		-4.761E-02	2.985E-01	4.952E-01	2.778E-02	-0.096
		228.18		-5.153E-02	9.302E-02	1.485E-01	8.464E-03	-0.347
		277.60		-2.970E-02	7.903E-02	1.274E-01	7.425E-03	-0.233
		334.30		-3.580E-01	5.495E-01	8.476E-01	4.882E-02	-0.422
AM-241		59.54	*	-2.431E-02	4.675E-02	7.304E-02	5.423E-03	-0.333
AM-243		74.67	*	1.038E-02	1.947E-02	3.277E-02	2.459E-03	0.317
		86.72		1.906E+00	2.908E+00	4.946E+00	4.258E-01	0.385
		117.66		-1.253E+00	1.659E+00	2.503E+00	1.804E-01	-0.501

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		3.219E+00	7.912E+00	1.308E+01	8.226E-01	0.246
CM-243		99.55		-3.052E-02	6.497E-02	9.613E-02	7.592E-03	-0.318
		103.76	*	-5.261E-03	3.635E-02	5.796E-02	4.456E-03	-0.091
		117.00		-5.048E-02	8.501E-02	1.302E-01	9.412E-03	-0.388
		209.75		-4.692E-02	2.942E-01	4.879E-01	2.738E-02	-0.096
		228.18		-5.205E-02	9.395E-02	1.500E-01	8.548E-03	-0.347
		277.60		-2.993E-02	7.964E-02	1.284E-01	7.482E-03	-0.233
AM-246		798.80		-4.144E-02	7.176E-02	1.044E-01	8.194E-03	-0.397
		1036.00		1.861E-02	1.307E-01	2.227E-01	1.738E-02	0.084
		1062.04		6.261E-02	1.054E-01	1.918E-01	1.424E-02	0.326
		1078.86	*	-8.552E-02	6.769E-02	8.464E-02	6.064E-03	-1.010
CM-247		278.00		-6.306E-02	3.259E-01	5.342E-01	3.114E-02	-0.118
		287.40		-6.421E-02	5.412E-01	8.918E-01	5.203E-02	-0.072
		402.60	*	-7.579E-03	1.778E-02	2.796E-02	1.536E-03	-0.271
CF-249		252.85		-1.368E-01	3.638E-01	5.871E-01	3.396E-02	-0.233
		333.44		-3.442E-02	7.233E-02	1.140E-01	6.567E-03	-0.302
		387.95	*	-1.193E-02	1.645E-02	2.465E-02	1.348E-03	-0.484
CF-251		176.60	*	4.208E-03	5.597E-02	8.989E-02	4.875E-03	0.047
		227.00		-7.169E-02	1.587E-01	2.560E-01	1.458E-02	-0.280
		285.00		-7.037E-01	7.965E-01	1.216E+00	7.096E-02	-0.579
ANH-511		511.00	*	-2.431E-02	2.907E-02	5.333E-02	3.133E-03	-0.456

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041817      *
* Acquisition date : 23-FEB-2010 15:22:32 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.51     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 15-FEB-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202041817          Analyst initials: MXR1            *
* Batch Number     : 952641               Sample Quantity : 1.4553E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2009 11:43:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	4.546E-02	1.416E-01	2.533E-01	0.000E+00 NOT IDENT.
NA-22	8.900E-03	1.858E-02	3.430E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	2.928E+02	0.000E+00	0.000E+00 SHORT HLIF
AL-26	-1.186E-02	1.894E-02	2.540E-02	0.000E+00 NOT IDENT.
K-40	9.326E-02	2.356E-01	4.401E-01	0.000E+00 NOT IDENT.
TI-44	-9.153E-03	1.184E-02	1.985E-02	0.000E+00 NOT IDENT.
SC-46	-9.709E-03	1.656E-02	2.590E-02	0.000E+00 NOT IDENT.
V-48	7.021E-03	2.456E-02	4.428E-02	0.000E+00 NOT IDENT.
CR-51	-4.281E-02	1.418E-01	2.430E-01	0.000E+00 NOT IDENT.
MN-52	-1.589E-03	6.214E-02	1.038E-01	0.000E+00 NOT IDENT.
MN-54	7.603E-03	1.759E-02	3.236E-02	0.000E+00 NOT IDENT.
CO-56	2.658E-03	1.987E-02	3.520E-02	0.000E+00 NOT IDENT.
CO-57	5.665E-03	1.017E-02	1.855E-02	0.000E+00 NOT IDENT.
CO-58	-4.127E-03	1.772E-02	2.842E-02	0.000E+00 NOT IDENT.
FE-59	5.775E-03	2.868E-02	5.121E-02	0.000E+00 NOT IDENT.
CO-60	1.328E-03	1.683E-02	2.892E-02	0.000E+00 NOT IDENT.
ZN-65	-6.610E-03	3.326E-02	5.469E-02	0.000E+00 NOT IDENT.
GE-68	5.839E-02	5.573E-01	9.720E-01	0.000E+00 NOT IDENT.
AS-73	1.489E-01	2.119E-01	4.036E-01	0.000E+00 NOT IDENT.
AS-74	-2.438E-02	3.672E-02	5.720E-02	0.000E+00 NOT IDENT.
SE-75	-1.093E-03	1.799E-02	3.188E-02	0.000E+00 NOT IDENT.
BR-77	-3.223E-01	8.268E-01	1.355E+00	0.000E+00 NOT IDENT.
SR-82	2.316E-02	1.647E-01	2.812E-01	0.000E+00 NOT IDENT.
RB-83	-1.337E-02	3.430E-02	5.622E-02	0.000E+00 NOT IDENT.
RB-84	-1.030E-02	2.799E-02	4.578E-02	0.000E+00 NOT IDENT.
KR-85	-1.061E+01	5.748E+00	8.522E+00	0.000E+00 NOT IDENT.

SR-85	-5.081E-02	2.753E-02	4.082E-02	0.000E+00	NOT IDENT.
RB-86	7.419E-02	2.815E-01	5.035E-01	0.000E+00	NOT IDENT.
Y-88	2.213E-02	1.865E-02	3.997E-02	0.000E+00	NOT IDENT.
ZR-88	-2.512E-03	1.294E-02	2.210E-02	0.000E+00	NOT IDENT.
Y-91	-2.035E+00	7.194E+00	1.161E+01	0.000E+00	NOT IDENT.
NB-94	-6.093E-03	1.629E-02	2.597E-02	0.000E+00	NOT IDENT.
NB-95	-6.014E-03	2.024E-02	3.203E-02	0.000E+00	NOT IDENT.
NB-95M	-4.152E-02	5.089E-02	8.562E-02	0.000E+00	NOT IDENT.
ZR-95	-2.098E-02	2.685E-02	3.798E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.738E+01	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.375E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.532E-01	1.004E+00	1.780E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.814E+08	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.168E-02	1.547E-02	2.496E-02	0.000E+00	NOT IDENT.
RH-102	-1.231E-02	1.392E-02	2.138E-02	0.000E+00	NOT IDENT.
RU-103	1.138E-02	1.682E-02	3.121E-02	0.000E+00	NOT IDENT.
RH-106	4.628E-02	1.452E-01	2.574E-01	0.000E+00	NOT IDENT.
RU-106	4.628E-02	1.451E-01	2.574E-01	0.000E+00	NOT IDENT.
AG-108M	1.166E-03	1.303E-02	2.288E-02	0.000E+00	NOT IDENT.
CD-109	-3.533E-01	2.861E-01	4.573E-01	0.000E+00	NOT IDENT.
AG-110M	-8.735E-04	1.591E-02	2.671E-02	0.000E+00	NOT IDENT.
IN-111	6.332E-03	9.114E-02	1.639E-01	0.000E+00	NOT IDENT.
IN-113M	4.335E-03	1.867E-02	3.342E-02	0.000E+00	NOT IDENT.
SN-113	4.335E-03	1.867E-02	3.342E-02	0.000E+00	NOT IDENT.
IN-114M	-1.381E-01	7.424E-02	1.158E-01	0.000E+00	NOT IDENT.
CD-115	1.834E-01	6.342E-01	1.130E+00	0.000E+00	NOT IDENT.
SN-117M	5.556E-03	1.666E-02	2.955E-02	0.000E+00	NOT IDENT.
SB-122	5.291E-03	1.808E-01	3.102E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.750E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	7.224E-03	1.176E-02	2.129E-02	0.000E+00	NOT IDENT.
I-124	5.167E-04	1.326E-01	2.257E-01	0.000E+00	NOT IDENT.
SB-124	-4.454E-03	4.532E-02	7.336E-02	0.000E+00	NOT IDENT.
SB-125	1.925E-03	4.238E-02	7.398E-02	0.000E+00	NOT IDENT.
TE-125M	4.410E-01	3.400E+00	6.027E+00	0.000E+00	NOT IDENT.
I-126	2.232E-02	5.734E-02	1.024E-01	0.000E+00	NOT IDENT.
SB-126	1.597E-02	3.616E-02	6.585E-02	0.000E+00	NOT IDENT.
SN-126	1.012E-02	2.580E-02	4.703E-02	0.000E+00	NOT IDENT.
SB-127	-9.340E-02	2.147E-01	3.397E-01	0.000E+00	NOT IDENT.
XE-127	-1.201E-03	1.859E-02	3.188E-02	0.000E+00	NOT IDENT.
I-131	9.394E-04	3.124E-02	5.491E-02	0.000E+00	NOT IDENT.
TE-132	-3.986E-02	7.042E-02	1.201E-01	0.000E+00	NOT IDENT.
BA-133	-6.077E-03	1.830E-02	3.093E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.531E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.539E-03	2.099E-02	3.706E-02	0.000E+00	NOT IDENT.
CS-135	-6.033E-04	6.440E-02	1.146E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.737E+08	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.133E-02	3.280E-02	5.968E-02	0.000E+00	NOT IDENT.
BA-137M	4.906E-03	1.684E-02	2.963E-02	0.000E+00	NOT IDENT.
CS-137	5.186E-03	1.780E-02	3.132E-02	0.000E+00	NOT IDENT.
CE-139	-1.003E-03	1.175E-02	2.008E-02	0.000E+00	NOT IDENT.
BA-140	6.769E-02	8.676E-02	1.495E-01	0.000E+00	NOT IDENT.
LA-140	2.191E-02	2.831E-02	5.610E-02	0.000E+00	NOT IDENT.
CE-141	3.101E-02	2.301E-02	4.386E-02	0.000E+00	NOT IDENT.
CE-143	1.417E+00	2.183E+00	4.046E+00	0.000E+00	NOT IDENT.
CE-144	-5.938E-03	7.933E-02	1.371E-01	0.000E+00	NOT IDENT.
PM-144	-5.520E-03	1.721E-02	2.774E-02	0.000E+00	NOT IDENT.
PR-144	-3.728E-01	1.162E+00	1.874E+00	0.000E+00	NOT IDENT.
PM-146	6.982E-03	2.018E-02	3.629E-02	0.000E+00	NOT IDENT.
ND-147	-1.412E-01	1.718E-01	2.590E-01	0.000E+00	NOT IDENT.
PM-149	-2.068E+00	5.138E+00	8.764E+00	0.000E+00	NOT IDENT.
EU-152	-2.244E-02	4.384E-02	7.309E-02	0.000E+00	NOT IDENT.
GD-153	-4.752E-02	3.322E-02	4.960E-02	0.000E+00	NOT IDENT.
EU-154	2.591E-02	5.229E-02	9.672E-02	0.000E+00	NOT IDENT.
EU-155	-4.433E-02	3.987E-02	6.286E-02	0.000E+00	NOT IDENT.
TB-160	3.526E-02	6.037E-02	1.138E-01	0.000E+00	NOT IDENT.
HO-166M	3.707E-02	3.032E-02	5.904E-02	0.000E+00	NOT IDENT.
TM-171	-6.513E+00	9.674E+00	1.576E+01	0.000E+00	NOT IDENT.
LU-176	4.911E-03	1.121E-02	2.060E-02	0.000E+00	NOT IDENT.
LU-177	1.117E-01	2.130E-01	3.991E-01	0.000E+00	NOT IDENT.
LU-177M	-3.267E-02	7.674E-02	1.271E-01	0.000E+00	NOT IDENT.
HF-181	-9.628E-03	1.747E-02	2.800E-02	0.000E+00	NOT IDENT.
W-181	5.926E-02	1.211E-01	2.152E-01	0.000E+00	NOT IDENT.
TA-182	-9.970E-02	8.046E-02	1.040E-01	0.000E+00	NOT IDENT.
RE-183	-2.756E-02	4.933E-02	7.773E-02	0.000E+00	NOT IDENT.
RE-184	-3.550E-02	9.253E-02	1.595E-01	0.000E+00	NOT IDENT.
OS-185	-1.149E-02	1.895E-02	2.910E-02	0.000E+00	NOT IDENT.
RE-188	-7.146E-02	6.505E-02	1.010E-01	0.000E+00	NOT IDENT.
W-188	4.197E-01	3.124E+00	5.603E+00	0.000E+00	NOT IDENT.

IR-192	-9.771E-03	1.387E-02	2.270E-02	0.000E+00	NOT IDENT.
AU-195	-6.544E-02	8.840E-02	1.395E-01	0.000E+00	NOT IDENT.
TL-200	-1.260E+00	3.479E+00	5.867E+00	0.000E+00	NOT IDENT.
TL-201	-4.296E-01	6.620E-01	1.073E+00	0.000E+00	NOT IDENT.
TL-202	-6.126E-03	2.121E-02	3.548E-02	0.000E+00	NOT IDENT.
HG-203	5.991E-03	1.586E-02	2.909E-02	0.000E+00	NOT IDENT.
BI-207	1.386E-02	2.424E-02	4.530E-02	0.000E+00	NOT IDENT.
TL-207	9.950E-02	2.888E-01	5.250E-01	0.000E+00	NOT IDENT.
TL-208	1.887E-03	2.120E-02	3.369E-02	0.000E+00	NOT IDENT.
PO-209	-1.463E+00	3.629E+00	5.753E+00	0.000E+00	NOT IDENT.
BI-210	-2.857E+00	1.056E+00	1.625E+00	0.000E+00	NOT IDENT.
PB-210	-2.857E+00	1.056E+00	1.625E+00	0.000E+00	NOT IDENT.
PO-210	-2.857E+00	1.050E+00	1.625E+00	0.000E+00	NOT IDENT.
BI-211	6.008E-02	9.944E-02	1.759E-01	0.000E+00	NOT IDENT.
PB-211	-1.150E-01	4.322E-01	7.216E-01	0.000E+00	NOT IDENT.
BI-212	-2.343E-02	1.164E-01	1.888E-01	0.000E+00	NOT IDENT.
PB-212	-1.434E-04	2.812E-02	5.142E-02	0.000E+00	NOT IDENT.
PO-212	-1.434E-04	2.812E-02	5.142E-02	0.000E+00	NOT IDENT.
BI-214	-1.049E-03	3.913E-02	6.570E-02	0.000E+00	NOT IDENT.
PB-214	-6.067E-03	3.420E-02	5.610E-02	0.000E+00	NOT IDENT.
PO-214	-6.067E-03	3.420E-02	5.610E-02	0.000E+00	NOT IDENT.
PO-215	9.950E-02	2.888E-01	5.250E-01	0.000E+00	NOT IDENT.
PO-216	-1.434E-04	2.812E-02	5.142E-02	0.000E+00	NOT IDENT.
PO-218	-6.067E-03	3.420E-02	5.610E-02	0.000E+00	NOT IDENT.
RN-219	-8.776E-02	1.985E-01	3.296E-01	0.000E+00	NOT IDENT.
RN-220	-2.637E+00	1.180E+01	1.958E+01	0.000E+00	NOT IDENT.
RA-223	9.950E-02	2.888E-01	5.250E-01	0.000E+00	NOT IDENT.
RA-224	-9.766E-04	2.920E-01	5.226E-01	0.000E+00	NOT IDENT.
RA-226	-1.049E-03	3.913E-02	6.570E-02	0.000E+00	NOT IDENT.
AC-227	6.445E-02	1.652E-01	3.040E-01	0.000E+00	NOT IDENT.
TH-227	6.445E-02	1.653E-01	3.040E-01	0.000E+00	NOT IDENT.
AC-228	6.041E-02	6.695E-02	1.180E-01	0.000E+00	NOT IDENT.
RA-228	6.041E-02	6.695E-02	1.180E-01	0.000E+00	NOT IDENT.
TH-228	-1.447E-04	2.836E-02	5.186E-02	0.000E+00	NOT IDENT.
TH-229	-4.993E-02	2.116E-01	3.760E-01	0.000E+00	NOT IDENT.
TH-230	-1.049E-03	3.913E-02	6.570E-02	0.000E+00	NOT IDENT.
PA-231	-4.005E-01	6.620E-01	1.106E+00	0.000E+00	NOT IDENT.
TH-231	9.950E-02	2.888E-01	5.250E-01	0.000E+00	NOT IDENT.
U-231	-4.479E-01	1.726E-01	2.432E-01	0.000E+00	NOT IDENT.
TH-232	6.041E-02	6.695E-02	1.180E-01	0.000E+00	NOT IDENT.
PA-233	-9.250E-03	2.890E-02	4.952E-02	0.000E+00	NOT IDENT.
PA-234	-6.498E-02	1.287E-01	2.016E-01	0.000E+00	NOT IDENT.
PA-234M	1.180E+00	2.086E+00	3.628E+00	0.000E+00	NOT IDENT.
TH-234	-2.860E-01	4.519E-01	7.933E-01	0.000E+00	NOT IDENT.
U-234	-1.049E-03	3.913E-02	6.570E-02	0.000E+00	NOT IDENT.
U-235	1.036E-01	9.566E-02	1.724E-01	0.000E+00	NOT IDENT.
NP-236	3.026E-02	3.423E-02	6.316E-02	0.000E+00	NOT IDENT.
NP-237	5.720E-02	7.702E-02	1.423E-01	0.000E+00	NOT IDENT.
U-238	-2.860E-01	4.519E-01	7.933E-01	0.000E+00	NOT IDENT.
NP-239	-4.908E-02	8.101E-02	1.348E-01	0.000E+00	NOT IDENT.
AM-241	-2.431E-02	4.582E-02	7.885E-02	0.000E+00	NOT IDENT.
AM-243	1.038E-02	1.908E-02	3.521E-02	0.000E+00	NOT IDENT.
CM-243	-5.261E-03	3.562E-02	6.184E-02	0.000E+00	NOT IDENT.
AM-246	-8.552E-02	6.634E-02	8.572E-02	0.000E+00	NOT IDENT.
CM-247	-7.579E-03	1.742E-02	2.897E-02	0.000E+00	NOT IDENT.
CF-249	-1.193E-02	1.612E-02	2.555E-02	0.000E+00	NOT IDENT.
CF-251	4.208E-03	5.485E-02	9.482E-02	0.000E+00	NOT IDENT.
ANH-511	-2.431E-02	2.849E-02	5.495E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 17:23:34.65

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041817.CNF;1
Sample date       : 15-FEB-2010 00:00:00 Acquisition date : 23-FEB-2010 15:22:32
Sample ID         : G1202041817          Sample quantity  : 1.45530E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.51  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202041817 Acquisition date : 23-FEB-2010 15:22:32

Total number of lines in spectrum	1	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	0	0.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202041817 Acquisition date : 23-FEB-2010 15:22:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	1006.47	11	2	0.97	2011.59	2009	6	1.50E-03	77.7	1.68E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 17:23:38.86

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041817.CNF;1  *
* Acquisition date  : 23-FEB-2010 15:22:32  Detector SN#     :             *
* Detector ID       : GAM14                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:00.51          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 15-FEB-2010 00:00:00  Nuclide Library : SOLID        *
* Sample ID         : G1202041817           Analyst initials: MXR1         *
* Batch Number      : 952641                Sample Quantity : 1.45530E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 6-MAR-2009 11:43:06.61MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.546E-02		1.445E-01	2.454E-01	1.654E-02	0.185
NA-22	8.900E-03		1.896E-02	3.400E-02	2.221E-03	0.262
NA-24	4.234E-05		1.494E-04	Half-Life too short		
AL-26	-1.186E-02		1.932E-02	2.539E-02	1.472E-03	-0.467
K-40	9.326E-02		2.404E-01	4.377E-01	3.178E-02	0.213
TI-44	-9.153E-03		1.208E-02	1.849E-02	1.444E-03	-0.495
SC-46	-9.709E-03		1.690E-02	2.546E-02	2.353E-03	-0.381
V-48	7.021E-03		2.506E-02	4.363E-02	3.705E-03	0.161
CR-51	-4.281E-02		1.447E-01	2.334E-01	1.508E-02	-0.183
MN-52	-1.589E-03		6.341E-02	1.032E-01	7.235E-03	-0.015
MN-54	7.603E-03		1.795E-02	3.176E-02	2.664E-03	0.239
CO-56	2.658E-03		2.028E-02	3.456E-02	2.962E-03	0.077
CO-57	5.665E-03		1.038E-02	1.744E-02	1.241E-03	0.325
CO-58	-4.127E-03		1.808E-02	2.787E-02	2.243E-03	-0.148
FE-59	5.775E-03		2.927E-02	5.059E-02	3.895E-03	0.114
CO-60	1.328E-03		1.717E-02	2.870E-02	2.045E-03	0.046
ZN-65	-6.610E-03		3.394E-02	5.404E-02	3.552E-03	-0.122

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GE-68	5.839E-02		5.686E-01	9.598E-01	6.900E-02	0.061
AS-73	1.489E-01		2.162E-01	3.730E-01	2.432E-02	0.399
AS-74	-2.438E-02		3.747E-02	5.571E-02	3.332E-03	-0.438
SE-75	-1.093E-03		1.835E-02	3.049E-02	1.790E-03	-0.036
BR-77	-3.223E-01		8.436E-01	1.316E+00	7.757E-02	-0.245
SR-82	2.316E-02		1.680E-01	2.756E-01	2.072E-02	0.084
RB-83	-1.337E-02		3.500E-02	5.459E-02	3.218E-03	-0.245
RB-84	-1.030E-02		2.856E-02	4.499E-02	4.102E-03	-0.229
KR-85	-1.061E+01		5.865E+00	8.272E+00	4.865E-01	-1.282
SR-85	-5.081E-02		2.809E-02	3.962E-02	2.330E-03	-1.282
RB-86	7.419E-02		2.872E-01	4.972E-01	3.580E-02	0.149
Y-88	2.213E-02		1.903E-02	3.997E-02	2.270E-03	0.554
ZR-88	-2.512E-03		1.320E-02	2.132E-02	1.161E-03	-0.118
Y-91	-2.035E+00		7.341E+00	1.149E+01	6.687E-01	-0.177
NB-94	-6.093E-03		1.662E-02	2.539E-02	1.647E-03	-0.240
NB-95	-6.014E-03		2.066E-02	3.138E-02	2.311E-03	-0.192
NB-95M	-4.152E-02		5.193E-02	8.168E-02	6.104E-03	-0.508
ZR-95	-2.098E-02		2.740E-02	3.720E-02	3.068E-03	-0.564
NB-97	-9.525E-07		3.948E-05	Half-Life too short		
ZR-97	-5.221E-03		1.212E-03	Half-Life too short		
MO-99	3.532E-01		1.024E+00	1.743E+00	2.496E-01	0.203
TC-99M	-1.490E+02		1.436E+02	Half-Life too short		
RH-101	-1.168E-02		1.579E-02	2.372E-02	1.316E-03	-0.492
RH-102	-1.231E-02		1.420E-02	2.072E-02	1.197E-03	-0.594
RU-103	1.138E-02		1.716E-02	3.027E-02	3.833E-03	0.376
RH-106	4.628E-02		1.481E-01	2.509E-01	2.968E-02	0.184
RU-106	4.628E-02		1.480E-01	2.509E-01	1.500E-02	0.184
AG-108M	1.166E-03		1.329E-02	2.212E-02	1.359E-03	0.053
CD-109	-3.533E-01		2.920E-01	4.271E-01	3.735E-02	-0.827
AG-110M	-8.735E-04		1.623E-02	2.607E-02	1.647E-03	-0.034
IN-111	6.332E-03		9.300E-02	1.565E-01	9.021E-03	0.040
IN-113M	4.335E-03		1.905E-02	3.224E-02	1.886E-03	0.134
SN-113	4.335E-03		1.905E-02	3.224E-02	1.886E-03	0.134
IN-114M	-1.381E-01		7.575E-02	1.099E-01	6.050E-03	-1.256
CD-115	1.834E-01		6.471E-01	1.098E+00	6.487E-02	0.167
SN-117M	5.556E-03		1.700E-02	2.795E-02	1.581E-03	0.199
SB-122	5.291E-03		1.845E-01	3.018E-01	1.799E-02	0.018
I-123	4.147E-04		3.444E-04	Half-Life too short		
TE-123M	7.224E-03		1.200E-02	2.014E-02	1.152E-03	0.359
I-124	5.167E-04		1.353E-01	2.199E-01	1.316E-02	0.002
SB-124	-4.454E-03		4.625E-02	7.321E-02	4.949E-03	-0.061
SB-125	1.925E-03		4.324E-02	7.151E-02	4.191E-03	0.027
TE-125M	4.410E-01		3.469E+00	5.655E+00	5.300E-01	0.078
I-126	2.232E-02		5.851E-02	9.998E-02	6.005E-03	0.223
SB-126	1.597E-02		3.690E-02	6.442E-02	4.334E-03	0.248
SN-126	1.012E-02		2.633E-02	4.392E-02	3.822E-03	0.230
SB-127	-9.340E-02		2.190E-01	3.319E-01	2.584E-02	-0.281
XE-127	-1.201E-03		1.897E-02	3.031E-02	1.690E-03	-0.040

Sample ID : G1202041817 Acquisition date : 23-FEB-2010 15:22:32

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	9.394E-04		3.187E-02	5.289E-02	3.314E-03	0.018
TE-132	-3.986E-02		7.186E-02	1.145E-01	1.518E-02	-0.348
BA-133	-6.077E-03		1.867E-02	2.978E-02	3.423E-03	-0.204
I-133	-3.583E-06		7.809E-06	Half-Life too short		
CS-134	7.539E-03		2.142E-02	3.633E-02	2.860E-03	0.207
CS-135	-6.033E-04		6.572E-02	1.096E-01	8.410E-03	-0.006
I-135	1.438E+02		8.862E+01	Half-Life too short		
CS-136	1.133E-02		3.347E-02	5.889E-02	4.733E-03	0.192
BA-137M	4.906E-03		1.718E-02	2.893E-02	1.720E-03	0.170
CS-137	5.186E-03		1.816E-02	3.058E-02	1.826E-03	0.170
CE-139	-1.003E-03		1.199E-02	1.901E-02	1.021E-03	-0.053
BA-140	6.769E-02		8.853E-02	1.453E-01	4.729E-02	0.466
LA-140	2.191E-02		2.888E-02	5.591E-02	3.706E-03	0.392
CE-141	3.101E-02		2.348E-02	4.140E-02	2.642E-03	0.749
CE-143	1.417E+00		2.227E+00	3.878E+00	7.994E-01	0.366
CE-144	-5.938E-03		8.094E-02	1.292E-01	1.881E-02	-0.046
PM-144	-5.520E-03		1.756E-02	2.712E-02	1.737E-03	-0.204
PR-144	-3.728E-01		1.186E+00	1.831E+00	1.173E-01	-0.204
PM-146	6.982E-03		2.059E-02	3.512E-02	3.007E-03	0.199
ND-147	-1.412E-01		1.753E-01	2.516E-01	3.415E-02	-0.561
PM-149	-2.068E+00		5.243E+00	8.396E+00	1.190E+00	-0.246
EU-152	-2.244E-02		4.474E-02	7.031E-02	4.549E-03	-0.319
GD-153	-4.752E-02		3.390E-02	4.643E-02	3.723E-03	-1.023
EU-154	2.591E-02		5.336E-02	9.588E-02	9.401E-03	0.270
EU-155	-4.433E-02		4.068E-02	5.893E-02	4.561E-03	-0.752
TB-160	3.526E-02		6.160E-02	1.118E-01	1.015E-02	0.315
HO-166M	3.707E-02		3.094E-02	5.773E-02	3.815E-03	0.642
TM-171	-6.513E+00		9.872E+00	1.464E+01	1.021E+00	-0.445
LU-176	4.911E-03		1.144E-02	1.977E-02	1.151E-03	0.248
LU-177	1.117E-01		2.173E-01	3.797E-01	2.128E-02	0.294
LU-177M	-3.267E-02		7.830E-02	1.228E-01	6.806E-03	-0.266
HF-181	-9.628E-03		1.783E-02	2.714E-02	1.574E-03	-0.355
W-181	5.926E-02		1.235E-01	1.997E-01	1.376E-02	0.297
TA-182	-9.970E-02		8.210E-02	1.030E-01	6.161E-03	-0.968
RE-183	-2.756E-02		5.034E-02	7.355E-02	4.051E-03	-0.375
RE-184	-3.550E-02		9.442E-02	1.524E-01	8.814E-03	-0.233
OS-185	-1.149E-02		1.933E-02	2.839E-02	1.693E-03	-0.405
RE-188	-7.146E-02		6.638E-02	9.550E-02	5.534E-03	-0.748
W-188	4.197E-01		3.187E+00	5.369E+00	3.133E-01	0.078
IR-192	-9.771E-03		1.415E-02	2.180E-02	1.272E-03	-0.448
AU-195	-6.544E-02		9.020E-02	1.306E-01	1.036E-02	-0.501
TL-200	-1.260E+00		3.550E+00	5.653E+00	3.167E-01	-0.223
TL-201	-4.296E-01		6.756E-01	1.016E+00	5.456E-02	-0.423
TL-202	-6.126E-03		2.164E-02	3.432E-02	1.941E-03	-0.179
HG-203	5.991E-03		1.618E-02	2.785E-02	1.723E-03	0.215
BI-207	1.386E-02		2.474E-02	4.472E-02	3.310E-03	0.310
TL-207	9.950E-02		2.946E-01	5.043E-01	8.327E-02	0.197
TL-208	1.887E-03		2.164E-02	3.280E-02	2.243E-03	0.058

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-209	-1.463E+00		3.704E+00	5.656E+00	5.293E-01	-0.259
BI-210	-2.857E+00		1.078E+00	1.498E+00	1.110E-01	-1.908
PB-210	-2.857E+00		1.078E+00	1.498E+00	1.110E-01	-1.908
PO-210	-2.857E+00		1.072E+00	1.498E+00	9.397E-02	-1.908
BI-211	6.008E-02		1.015E-01	1.693E-01	1.072E-02	0.355
PB-211	-1.150E-01		4.410E-01	6.966E-01	4.341E-01	-0.165
BI-212	-2.343E-02		1.188E-01	1.848E-01	1.572E-02	-0.127
PB-212	-1.434E-04		2.869E-02	4.906E-02	3.574E-03	-0.003
PO-212	-1.434E-04		2.869E-02	4.906E-02	3.574E-03	-0.003
BI-214	-1.049E-03		3.993E-02	6.402E-02	5.068E-03	-0.016
PB-214	-6.067E-03		3.490E-02	5.400E-02	4.431E-03	-0.112
PO-214	-6.067E-03		3.490E-02	5.400E-02	4.431E-03	-0.112
PO-215	9.950E-02		2.946E-01	5.043E-01	8.327E-02	0.197
PO-216	-1.434E-04		2.869E-02	4.906E-02	3.574E-03	-0.003
PO-218	-6.067E-03		3.490E-02	5.400E-02	4.431E-03	-0.112
RN-219	-8.776E-02		2.025E-01	3.181E-01	4.287E-02	-0.276
RN-220	-2.637E+00		1.204E+01	1.903E+01	1.131E+00	-0.139
RA-223	9.950E-02		2.946E-01	5.043E-01	8.327E-02	0.197
RA-224	-9.766E-04		2.980E-01	4.988E-01	2.867E-02	-0.002
RA-226	-1.049E-03		3.993E-02	6.402E-02	5.068E-03	-0.016
AC-227	6.445E-02		1.686E-01	2.905E-01	4.055E-02	0.222
TH-227	6.445E-02		1.687E-01	2.905E-01	4.909E-02	0.222
AC-228	6.041E-02		6.832E-02	1.161E-01	1.363E-02	0.520
RA-228	6.041E-02		6.832E-02	1.161E-01	1.363E-02	0.520
TH-228	-1.447E-04		2.894E-02	4.949E-02	3.605E-03	-0.003
TH-229	-4.993E-02		2.159E-01	3.572E-01	1.973E-02	-0.140
TH-230	-1.049E-03		3.993E-02	6.402E-02	5.068E-03	-0.016
PA-231	-4.005E-01		6.755E-01	1.059E+00	1.461E-01	-0.378
TH-231	9.950E-02		2.946E-01	5.043E-01	8.327E-02	0.197
U-231	-4.479E-01		1.761E-01	2.275E-01	1.847E-02	-1.969
TH-232	6.041E-02		6.832E-02	1.161E-01	1.363E-02	0.520
PA-233	-9.250E-03		2.949E-02	4.753E-02	2.935E-03	-0.195
PA-234	-6.498E-02		1.313E-01	1.985E-01	3.751E-02	-0.327
PA-234M	1.180E+00		2.128E+00	3.576E+00	3.457E-01	0.330
TH-234	-2.860E-01		4.611E-01	7.359E-01	1.265E-01	-0.389
U-234	-1.049E-03		3.993E-02	6.402E-02	5.068E-03	-0.016
U-235	1.036E-01		9.761E-02	1.627E-01	2.678E-02	0.637
NP-236	3.026E-02		3.493E-02	5.975E-02	3.339E-03	0.506
NP-237	5.720E-02		7.859E-02	1.329E-01	2.970E-02	0.430
U-238	-2.860E-01		4.611E-01	7.359E-01	1.265E-01	-0.389
NP-239	-4.908E-02		8.266E-02	1.266E-01	9.153E-03	-0.388
AM-241	-2.431E-02		4.675E-02	7.304E-02	5.423E-03	-0.333
AM-243	1.038E-02		1.947E-02	3.277E-02	2.459E-03	0.317
CM-243	-5.261E-03		3.635E-02	5.796E-02	4.456E-03	-0.091
AM-246	-8.552E-02		6.769E-02	8.464E-02	6.064E-03	-1.010
CM-247	-7.579E-03		1.778E-02	2.796E-02	1.536E-03	-0.271
CF-249	-1.193E-02		1.645E-02	2.465E-02	1.348E-03	-0.484
CF-251	4.208E-03		5.597E-02	8.989E-02	4.875E-03	0.047

Sample ID : G1202041817 Acquisition date : 23-FEB-2010 15:22:32

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	-2.431E-02		2.907E-02	5.333E-02	3.133E-03	-0.456

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202041817           *
* Acquisition date : 23-FEB-2010 15:22:32 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.51     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 15-FEB-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202041817          Analyst initials: MXR1            *
* Batch Number     : 952641               Sample Quantity : 1.4553E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2009 11:43:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.546E-02	1.416E-01	1.267E-01	7.223E-02 NOT IDENT.
NA-22	8.900E-03	1.858E-02	1.716E-02	9.479E-03 NOT IDENT.
NA-24	4.234E+01	2.928E+02	0.000E+00	1.494E+02 SHORT HLIF
AL-26	-1.186E-02	1.894E-02	1.271E-02	9.662E-03 NOT IDENT.
K-40	9.326E-02	2.356E-01	2.202E-01	1.202E-01 NOT IDENT.
TI-44	-9.153E-03	1.184E-02	9.929E-03	6.042E-03 NOT IDENT.
SC-46	-9.709E-03	1.656E-02	1.296E-02	8.448E-03 NOT IDENT.
V-48	7.021E-03	2.456E-02	2.215E-02	1.253E-02 NOT IDENT.
CR-51	-4.281E-02	1.418E-01	1.216E-01	7.235E-02 NOT IDENT.
MN-52	-1.589E-03	6.214E-02	5.195E-02	3.171E-02 NOT IDENT.
MN-54	7.603E-03	1.759E-02	1.619E-02	8.973E-03 NOT IDENT.
CO-56	2.658E-03	1.987E-02	1.761E-02	1.014E-02 NOT IDENT.
CO-57	5.665E-03	1.017E-02	9.279E-03	5.188E-03 NOT IDENT.
CO-58	-4.127E-03	1.772E-02	1.422E-02	9.039E-03 NOT IDENT.
FE-59	5.775E-03	2.868E-02	2.562E-02	1.463E-02 NOT IDENT.
CO-60	1.328E-03	1.683E-02	1.447E-02	8.586E-03 NOT IDENT.
ZN-65	-6.610E-03	3.326E-02	2.736E-02	1.697E-02 NOT IDENT.
GE-68	5.839E-02	5.573E-01	4.863E-01	2.843E-01 NOT IDENT.
AS-73	1.489E-01	2.119E-01	2.019E-01	1.081E-01 NOT IDENT.
AS-74	-2.438E-02	3.672E-02	2.862E-02	1.874E-02 NOT IDENT.
SE-75	-1.093E-03	1.799E-02	1.595E-02	9.177E-03 NOT IDENT.
BR-77	-3.223E-01	8.268E-01	6.780E-01	4.218E-01 NOT IDENT.
SR-82	2.316E-02	1.647E-01	1.407E-01	8.401E-02 NOT IDENT.
RB-83	-1.337E-02	3.430E-02	2.813E-02	1.750E-02 NOT IDENT.
RB-84	-1.030E-02	2.799E-02	2.290E-02	1.428E-02 NOT IDENT.
KR-85	-1.061E+01	5.748E+00	4.263E+00	2.933E+00 NOT IDENT.

SR-85	-5.081E-02	2.753E-02	2.042E-02	1.405E-02	NOT IDENT.
RB-86	7.419E-02	2.815E-01	2.519E-01	1.436E-01	NOT IDENT.
Y-88	2.213E-02	1.865E-02	2.000E-02	9.517E-03	NOT IDENT.
ZR-88	-2.512E-03	1.294E-02	1.105E-02	6.601E-03	NOT IDENT.
Y-91	-2.035E+00	7.194E+00	5.808E+00	3.670E+00	NOT IDENT.
NB-94	-6.093E-03	1.629E-02	1.299E-02	8.311E-03	NOT IDENT.
NB-95	-6.014E-03	2.024E-02	1.603E-02	1.033E-02	NOT IDENT.
NB-95M	-4.152E-02	5.089E-02	4.283E-02	2.596E-02	NOT IDENT.
ZR-95	-2.098E-02	2.685E-02	1.900E-02	1.370E-02	NOT IDENT.
NB-97	-9.525E-01	7.738E+01	0.000E+00	3.948E+01	SHORT HLIF
ZR-97	-5.221E+03	2.375E+03	0.000E+00	1.212E+03	SHORT HLIF
MO-99	3.532E-01	1.004E+00	8.907E-01	5.122E-01	NOT IDENT.
TC-99M	-1.490E+08	2.814E+08	0.000E+00	1.436E+08	SHORT HLIF
RH-101	-1.168E-02	1.547E-02	1.249E-02	7.893E-03	NOT IDENT.
RH-102	-1.231E-02	1.392E-02	1.070E-02	7.100E-03	NOT IDENT.
RU-103	1.138E-02	1.682E-02	1.561E-02	8.582E-03	NOT IDENT.
RH-106	4.628E-02	1.452E-01	1.288E-01	7.406E-02	NOT IDENT.
RU-106	4.628E-02	1.451E-01	1.288E-01	7.402E-02	NOT IDENT.
AG-108M	1.166E-03	1.303E-02	1.144E-02	6.647E-03	NOT IDENT.
CD-109	-3.533E-01	2.861E-01	2.288E-01	1.460E-01	NOT IDENT.
AG-110M	-8.735E-04	1.591E-02	1.336E-02	8.116E-03	NOT IDENT.
IN-111	6.332E-03	9.114E-02	8.202E-02	4.650E-02	NOT IDENT.
IN-113M	4.335E-03	1.867E-02	1.672E-02	9.527E-03	NOT IDENT.
SN-113	4.335E-03	1.867E-02	1.672E-02	9.527E-03	NOT IDENT.
IN-114M	-1.381E-01	7.424E-02	5.792E-02	3.788E-02	NOT IDENT.
CD-115	1.834E-01	6.342E-01	5.654E-01	3.236E-01	NOT IDENT.
SN-117M	5.556E-03	1.666E-02	1.479E-02	8.501E-03	NOT IDENT.
SB-122	5.291E-03	1.808E-01	1.552E-01	9.227E-02	NOT IDENT.
I-123	4.147E+02	6.750E+02	0.000E+00	3.444E+02	SHORT HLIF
TE-123M	7.224E-03	1.176E-02	1.065E-02	5.999E-03	NOT IDENT.
I-124	5.167E-04	1.326E-01	1.129E-01	6.764E-02	NOT IDENT.
SB-124	-4.454E-03	4.532E-02	3.670E-02	2.312E-02	NOT IDENT.
SB-125	1.925E-03	4.238E-02	3.701E-02	2.162E-02	NOT IDENT.
TE-125M	4.410E-01	3.400E+00	3.015E+00	1.735E+00	NOT IDENT.
I-126	2.232E-02	5.734E-02	5.123E-02	2.925E-02	NOT IDENT.
SB-126	1.597E-02	3.616E-02	3.295E-02	1.845E-02	NOT IDENT.
SN-126	1.012E-02	2.580E-02	2.353E-02	1.316E-02	NOT IDENT.
SB-127	-9.340E-02	2.147E-01	1.700E-01	1.095E-01	NOT IDENT.
XE-127	-1.201E-03	1.859E-02	1.595E-02	9.486E-03	NOT IDENT.
I-131	9.394E-04	3.124E-02	2.747E-02	1.594E-02	NOT IDENT.
TE-132	-3.986E-02	7.042E-02	6.007E-02	3.593E-02	NOT IDENT.
BA-133	-6.077E-03	1.830E-02	1.548E-02	9.336E-03	NOT IDENT.
I-133	-3.583E+00	1.531E+01	0.000E+00	7.809E+00	SHORT HLIF
CS-134	7.539E-03	2.099E-02	1.854E-02	1.071E-02	NOT IDENT.
CS-135	-6.033E-04	6.440E-02	5.733E-02	3.286E-02	NOT IDENT.
I-135	1.438E+08	1.737E+08	0.000E+00	8.862E+07	SHORT HLIF
CS-136	1.133E-02	3.280E-02	2.986E-02	1.674E-02	NOT IDENT.
BA-137M	4.906E-03	1.684E-02	1.482E-02	8.591E-03	NOT IDENT.
CS-137	5.186E-03	1.780E-02	1.567E-02	9.082E-03	NOT IDENT.
CE-139	-1.003E-03	1.175E-02	1.005E-02	5.994E-03	NOT IDENT.
BA-140	6.769E-02	8.676E-02	7.482E-02	4.426E-02	NOT IDENT.
LA-140	2.191E-02	2.831E-02	2.806E-02	1.444E-02	NOT IDENT.
CE-141	3.101E-02	2.301E-02	2.194E-02	1.174E-02	NOT IDENT.
CE-143	1.417E+00	2.183E+00	2.024E+00	1.114E+00	NOT IDENT.
CE-144	-5.938E-03	7.933E-02	6.860E-02	4.047E-02	NOT IDENT.
PM-144	-5.520E-03	1.721E-02	1.388E-02	8.781E-03	NOT IDENT.
PR-144	-3.728E-01	1.162E+00	9.374E-01	5.930E-01	NOT IDENT.
PM-146	6.982E-03	2.018E-02	1.815E-02	1.029E-02	NOT IDENT.
ND-147	-1.412E-01	1.718E-01	1.296E-01	8.765E-02	NOT IDENT.
PM-149	-2.068E+00	5.138E+00	4.385E+00	2.622E+00	NOT IDENT.
EU-152	-2.244E-02	4.384E-02	3.657E-02	2.237E-02	NOT IDENT.
GD-153	-4.752E-02	3.322E-02	2.482E-02	1.695E-02	NOT IDENT.
EU-154	2.591E-02	5.229E-02	4.839E-02	2.668E-02	NOT IDENT.
EU-155	-4.433E-02	3.987E-02	3.145E-02	2.034E-02	NOT IDENT.
TB-160	3.526E-02	6.037E-02	5.692E-02	3.080E-02	NOT IDENT.
HO-166M	3.707E-02	3.032E-02	2.954E-02	1.547E-02	NOT IDENT.
TM-171	-6.513E+00	9.674E+00	7.886E+00	4.936E+00	NOT IDENT.
LU-176	4.911E-03	1.121E-02	1.031E-02	5.721E-03	NOT IDENT.
LU-177	1.117E-01	2.130E-01	1.997E-01	1.087E-01	NOT IDENT.
LU-177M	-3.267E-02	7.674E-02	6.358E-02	3.915E-02	NOT IDENT.
HF-181	-9.628E-03	1.747E-02	1.401E-02	8.914E-03	NOT IDENT.
W-181	5.926E-02	1.211E-01	1.076E-01	6.177E-02	NOT IDENT.
TA-182	-9.970E-02	8.046E-02	5.204E-02	4.105E-02	NOT IDENT.
RE-183	-2.756E-02	4.933E-02	3.889E-02	2.517E-02	NOT IDENT.
RE-184	-3.550E-02	9.253E-02	7.979E-02	4.721E-02	NOT IDENT.
OS-185	-1.149E-02	1.895E-02	1.456E-02	9.666E-03	NOT IDENT.
RE-188	-7.146E-02	6.505E-02	5.054E-02	3.319E-02	NOT IDENT.
W-188	4.197E-01	3.124E+00	2.803E+00	1.594E+00	NOT IDENT.

IR-192	-9.771E-03	1.387E-02	1.136E-02	7.077E-03	NOT IDENT.
AU-195	-6.544E-02	8.840E-02	6.978E-02	4.510E-02	NOT IDENT.
TL-200	-1.260E+00	3.479E+00	2.935E+00	1.775E+00	NOT IDENT.
TL-201	-4.296E-01	6.620E-01	5.367E-01	3.378E-01	NOT IDENT.
TL-202	-6.126E-03	2.121E-02	1.775E-02	1.082E-02	NOT IDENT.
HG-203	5.991E-03	1.586E-02	1.455E-02	8.090E-03	NOT IDENT.
BI-207	1.386E-02	2.424E-02	2.267E-02	1.237E-02	NOT IDENT.
TL-207	9.950E-02	2.888E-01	2.626E-01	1.473E-01	NOT IDENT.
TL-208	1.887E-03	2.120E-02	1.686E-02	1.082E-02	NOT IDENT.
PO-209	-1.463E+00	3.629E+00	2.878E+00	1.852E+00	NOT IDENT.
BI-210	-2.857E+00	1.056E+00	8.129E-01	5.388E-01	NOT IDENT.
PB-210	-2.857E+00	1.056E+00	8.129E-01	5.388E-01	NOT IDENT.
PO-210	-2.857E+00	1.050E+00	8.129E-01	5.358E-01	NOT IDENT.
BI-211	6.008E-02	9.944E-02	8.799E-02	5.074E-02	NOT IDENT.
PB-211	-1.150E-01	4.322E-01	3.610E-01	2.205E-01	NOT IDENT.
BI-212	-2.343E-02	1.164E-01	9.448E-02	5.940E-02	NOT IDENT.
PB-212	-1.434E-04	2.812E-02	2.572E-02	1.435E-02	NOT IDENT.
PO-212	-1.434E-04	2.812E-02	2.572E-02	1.435E-02	NOT IDENT.
BI-214	-1.049E-03	3.913E-02	3.287E-02	1.996E-02	NOT IDENT.
PB-214	-6.067E-03	3.420E-02	2.807E-02	1.745E-02	NOT IDENT.
PO-214	-6.067E-03	3.420E-02	2.807E-02	1.745E-02	NOT IDENT.
PO-215	9.950E-02	2.888E-01	2.626E-01	1.473E-01	NOT IDENT.
PO-216	-1.434E-04	2.812E-02	2.572E-02	1.435E-02	NOT IDENT.
PO-218	-6.067E-03	3.420E-02	2.807E-02	1.745E-02	NOT IDENT.
RN-219	-8.776E-02	1.985E-01	1.649E-01	1.013E-01	NOT IDENT.
RN-220	-2.637E+00	1.180E+01	9.795E+00	6.022E+00	NOT IDENT.
RA-223	9.950E-02	2.888E-01	2.626E-01	1.473E-01	NOT IDENT.
RA-224	-9.766E-04	2.920E-01	2.615E-01	1.490E-01	NOT IDENT.
RA-226	-1.049E-03	3.913E-02	3.287E-02	1.996E-02	NOT IDENT.
AC-227	6.445E-02	1.652E-01	1.521E-01	8.430E-02	NOT IDENT.
TH-227	6.445E-02	1.653E-01	1.521E-01	8.436E-02	NOT IDENT.
AC-228	6.041E-02	6.695E-02	5.905E-02	3.416E-02	NOT IDENT.
RA-228	6.041E-02	6.695E-02	5.905E-02	3.416E-02	NOT IDENT.
TH-228	-1.447E-04	2.836E-02	2.595E-02	1.447E-02	NOT IDENT.
TH-229	-4.993E-02	2.116E-01	1.881E-01	1.079E-01	NOT IDENT.
TH-230	-1.049E-03	3.913E-02	3.287E-02	1.996E-02	NOT IDENT.
PA-231	-4.005E-01	6.620E-01	5.531E-01	3.377E-01	NOT IDENT.
TH-231	9.950E-02	2.888E-01	2.626E-01	1.473E-01	NOT IDENT.
U-231	-4.479E-01	1.726E-01	1.217E-01	8.807E-02	NOT IDENT.
TH-232	6.041E-02	6.695E-02	5.905E-02	3.416E-02	NOT IDENT.
PA-233	-9.250E-03	2.890E-02	2.478E-02	1.475E-02	NOT IDENT.
PA-234	-6.498E-02	1.287E-01	1.009E-01	6.567E-02	NOT IDENT.
PA-234M	1.180E+00	2.086E+00	1.815E+00	1.064E+00	NOT IDENT.
TH-234	-2.860E-01	4.519E-01	3.969E-01	2.306E-01	NOT IDENT.
U-234	-1.049E-03	3.913E-02	3.287E-02	1.996E-02	NOT IDENT.
U-235	1.036E-01	9.566E-02	8.625E-02	4.881E-02	NOT IDENT.
NP-236	3.026E-02	3.423E-02	3.160E-02	1.746E-02	NOT IDENT.
NP-237	5.720E-02	7.702E-02	7.120E-02	3.929E-02	NOT IDENT.
U-238	-2.860E-01	4.519E-01	3.969E-01	2.306E-01	NOT IDENT.
NP-239	-4.908E-02	8.101E-02	6.743E-02	4.133E-02	NOT IDENT.
AM-241	-2.431E-02	4.582E-02	3.945E-02	2.338E-02	NOT IDENT.
AM-243	1.038E-02	1.908E-02	1.761E-02	9.736E-03	NOT IDENT.
CM-243	-5.261E-03	3.562E-02	3.094E-02	1.817E-02	NOT IDENT.
AM-246	-8.552E-02	6.634E-02	4.288E-02	3.384E-02	NOT IDENT.
CM-247	-7.579E-03	1.742E-02	1.449E-02	8.889E-03	NOT IDENT.
CF-249	-1.193E-02	1.612E-02	1.278E-02	8.226E-03	NOT IDENT.
CF-251	4.208E-03	5.485E-02	4.744E-02	2.798E-02	NOT IDENT.
ANH-511	-2.431E-02	2.849E-02	2.749E-02	1.453E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	85.3502
46.50	85.3502
46.50	85.3502
48.70	72.3285
49.72	91.7923
51.35	84.8103
52.39	67.5183
52.97	59.3727
53.15	62.4561
53.44	63.5003
54.07	64.5693
56.28	84.2442
56.28	84.2445
57.37	81.2569
57.53	83.3281
57.53	83.3282
57.60	83.3343
57.98	85.4263
57.98	85.4263
59.32	80.3930
59.32	80.3930
59.40	80.3997
59.54	91.7515
59.72	91.7687
60.01	90.7648
61.10	94.9971
61.14	95.0010
61.30	95.0166
63.00	93.1115
63.29	93.1387
63.29	93.1387
63.58	86.9547
64.28	89.0874
65.12	90.1984
65.20	90.2056
65.20	90.2056
66.05	96.5073
66.72	105.9159
66.83	105.9276
66.91	114.2444
67.20	109.0823
67.20	109.0823
67.75	113.2981
67.85	113.3090
68.90	106.1396
68.90	106.1396
69.30	111.3850
69.67	106.2178
70.82	97.9935
70.82	97.9935
70.83	97.9942
72.80	102.3528
72.87	102.3594
72.87	102.3594
74.67	103.5757
74.81	103.5889
74.81	103.5889
74.81	103.5889
74.81	103.5889
74.81	103.5889
74.81	103.5889
74.81	103.5889
74.97	95.2320
75.28	104.6801
75.70	97.3895
77.11	100.6593
77.11	100.6593

77.11	100.6593
77.11	100.6593
77.11	100.6593
77.11	100.6593
77.11	100.6593
78.38	115.4697
79.62	97.7319
79.80	97.7475
79.80	97.7475
80.11	99.8768
80.18	99.8829
80.30	99.8934
80.30	99.8934
80.57	104.1240
81.00	107.3198
81.07	107.3264
81.07	107.3264
81.07	107.3264
81.07	107.3264
82.60	92.7185
83.37	96.9969
83.78	94.9219
83.78	94.9219
83.78	94.9219
83.78	94.9219
84.21	88.6264
84.90	86.5673
85.43	86.6061
86.29	82.4412
86.50	76.1130
86.54	76.1158
86.59	76.1188
86.72	77.1846
86.79	77.1888
86.94	75.0838
87.30	79.3376
87.30	79.3376
87.30	79.3376
87.30	79.3376
87.30	79.3376
87.30	79.3376
87.30	79.3376
87.57	81.4718
87.88	84.6680
88.03	121.7251
88.36	124.9352
88.47	164.1246
89.95	167.5061
91.11	95.5055
92.29	81.7887
92.38	81.7949
92.38	81.7949
93.35	72.2910
94.00	69.1379
94.67	110.6793
94.67	110.6797
94.90	105.3778
94.90	105.3778
94.90	105.3778
94.90	105.3778
95.87	174.7004
95.87	174.7004
96.73	143.9066
97.43	115.1884
98.44	85.3922
98.44	85.3922
98.88	89.6925
99.55	82.2610
99.55	82.2610
99.86	80.1435
100.00	74.8089
100.10	74.8148
103.18	63.2072
103.76	75.0247
105.00	80.4588
105.31	86.9156
108.00	83.8646
109.28	81.7917

111.00	85.1273
111.00	85.1273
111.76	86.2524
112.95	79.8522
115.19	90.7887
116.30	95.1872
117.00	97.3989
117.00	97.3989
117.66	99.6097
121.11	69.4607
121.62	74.9139
121.78	68.4071
122.06	72.7645
122.32	82.5536
122.32	82.5536
122.32	82.5536
122.32	82.5536
123.07	80.4226
127.23	73.0211
129.76	76.4199
131.20	63.3800
133.02	77.6790
133.54	75.5161
135.34	96.4239
136.00	88.7915
136.25	85.5166
136.48	78.9505
140.51	100.0422
140.51	0.0000
142.18	90.2430
142.65	85.8665
143.76	66.0974
144.24	67.2190
144.24	67.2190
144.24	67.2190
144.24	67.2190
145.22	71.6705
145.44	68.3721
147.16	104.8753
152.43	59.8057
152.70	59.8156
153.22	66.4824
154.21	75.3918
154.21	75.3918
154.21	75.3918
154.21	75.3918
155.03	88.7402
156.02	81.0234
158.56	75.5874
159.00	0.0000
159.00	74.4953
160.31	71.2144
161.27	70.1415
162.32	90.2370
162.64	88.0252
163.35	85.8325
163.89	78.0536
165.85	73.6770
167.43	81.5653
171.28	75.0248
171.86	75.0494
172.10	75.0596
176.55	77.4929
176.60	77.4950
181.06	112.5870
184.41	74.8940
185.71	73.1408
186.00	75.8615
190.27	117.6721
192.34	68.8680
193.63	81.6097
197.04	76.3050
198.01	82.7051
198.60	85.4577
200.40	75.5273
201.83	74.6719
202.84	76.5326
205.31	76.6290

208.36	63.0421
208.81	63.0564
209.75	69.4859
209.75	69.4859
210.97	84.1656
215.65	60.5199
216.55	70.6375
218.09	79.8712
222.10	69.9090
223.80	63.5218
226.40	66.3662
227.00	70.0732
227.08	70.0760
227.20	70.0797
228.16	70.1117
228.18	70.1126
228.18	70.1126
231.56	67.4524
235.69	96.2825
236.00	86.1113
236.00	86.1113
238.63	68.6022
238.63	68.6022
238.63	68.6022
238.63	68.6022
239.00	68.6140
240.98	82.5977
241.98	96.5631
241.98	96.5631
241.98	96.5631
244.69	60.4265
245.39	62.3058
247.94	57.7227
248.90	56.8163
249.79	57.7708
252.40	64.3683
252.85	58.7830
252.85	58.7830
254.15	0.0000
256.20	57.0015
256.20	57.0015
260.50	62.7266
260.90	65.5472
262.80	53.4180
264.65	57.2128
268.24	56.3621
268.79	59.1948
269.46	62.0313
269.46	62.0313
269.46	62.0313
269.46	62.0313
271.23	56.4346
273.65	58.3763
276.40	63.1576
277.35	60.3531
277.60	64.1327
277.60	64.1327
278.00	61.3136
278.60	59.4416
279.20	53.7944
279.53	58.5208
280.46	50.9895
281.68	52.9054
283.67	60.5133
284.30	62.4204
285.00	67.1692
285.90	56.7839
286.10	55.8419
286.10	55.8419
287.40	54.9251
288.45	0.0000
290.67	59.7400
290.80	59.7431
291.72	58.8167
293.26	53.1583
293.70	52.2184
295.21	48.4506
295.21	48.4506

295.21	48.4506
295.96	56.0673
296.50	62.7330
297.23	58.9484
298.57	57.0784
299.80	61.8651
299.80	61.8651
300.09	57.1128
300.09	57.1128
300.09	57.1128
300.09	57.1128
300.12	57.1135
301.29	53.3312
302.84	48.5994
303.76	52.4306
303.91	53.3866
304.40	48.6299
304.40	48.6299
304.84	49.5917
306.84	49.6311
308.46	53.4830
311.98	55.4703
316.51	52.6938
318.01	42.1797
319.02	44.1138
319.41	50.8346
320.08	53.7257
323.87	46.1180
323.87	46.1180
323.87	46.1180
323.87	46.1180
325.23	56.7162
328.77	50.0544
333.44	50.1427
334.20	51.1218
334.20	51.1218
334.30	51.1238
338.28	43.4713
338.28	43.4713
338.28	43.4713
338.28	43.4713
338.32	42.5063
338.32	42.5063
338.32	42.5063
340.50	41.5738
340.57	41.5749
344.27	53.2497
345.85	58.1243
350.59	39.7873
351.07	33.0002
351.92	39.8068
351.92	39.8068
351.92	39.8068
355.39	0.0000
356.01	43.7547
364.48	46.8135
366.43	40.9905
367.43	45.8864
367.94	49.8003
369.80	42.9935
374.96	47.9658
383.85	39.2764
387.95	39.3315
388.63	36.3903
391.69	36.4282
391.69	36.4282
392.90	41.3678
398.62	35.5267
400.65	53.3263
401.10	53.3342
401.81	50.3830
402.60	48.4204
404.84	44.5007
410.95	32.6999
411.60	35.6805
413.65	42.6467
414.70	37.7008
415.30	38.7006

415.76	39.6992
417.63	0.0000
418.52	37.7481
423.70	43.7819
427.08	38.8486
427.89	37.8627
432.53	25.9445
433.93	26.9542
439.47	36.0022
439.56	36.0035
439.89	36.0070
443.98	29.0432
444.90	35.0620
445.03	35.0637
445.03	35.0637
445.03	35.0637
445.03	35.0637
453.90	33.1511
463.38	33.2477
468.07	28.2505
473.00	38.3971
475.06	43.4766
475.35	36.4021
476.78	32.3711
477.59	33.3907
477.96	30.3589
482.03	36.4746
484.57	29.4046
487.03	27.3965
490.36	25.3922
492.35	33.5374
497.08	26.4599
507.63	0.0000
510.53	0.0000
510.84	44.9569
511.00	47.0026
511.85	54.1681
511.85	54.1681
513.99	139.0821
513.99	139.0821
520.41	42.0060
520.65	42.0090
527.90	24.6410
528.96	0.0000
529.64	22.5983
529.87	0.0000
531.02	34.9380
537.32	15.4409
543.00	16.4961
546.56	0.0000
549.76	28.9222
552.65	32.0459
555.20	28.9652
563.23	32.1383
563.90	29.0329
568.70	31.1470
569.32	25.9601
569.50	26.9998
569.67	27.0010
573.80	37.4273
574.00	36.3894
574.64	39.5150
578.91	34.3551
579.30	30.1937
583.14	32.3086
585.48	25.0283
591.81	32.3820
592.07	30.2949
593.00	21.9428
595.88	39.7358
600.56	41.8779
602.52	0.0000
602.71	47.1390
602.71	47.1390
603.60	52.3889
604.41	47.1599
604.70	45.0671
609.31	36.7261

609.31	36.7261
609.31	36.7261
609.31	36.7261
610.33	40.9338
612.46	37.8053
614.37	32.5704
618.01	26.2909
621.84	23.1585
621.84	23.1585
631.29	14.7721
633.02	19.0006
633.10	19.0011
634.78	20.0650
635.90	25.3523
636.97	27.4727
645.85	30.7098
646.12	28.5939
656.30	27.6034
657.75	25.4889
657.90	0.0000
661.65	24.4504
661.65	24.4504
664.57	26.5948
666.33	21.2852
666.33	21.2852
675.00	22.3956
677.61	26.6785
685.20	31.0030
692.80	32.1292
695.00	31.0745
696.49	32.1570
696.49	32.1570
697.00	37.5208
697.49	36.4529
698.33	28.9538
698.50	28.9551
699.00	22.5232
702.63	30.0562
706.10	33.3031
706.58	0.0000
706.67	34.3820
709.31	23.6521
711.68	18.2866
713.82	19.3720
717.42	26.9275
720.50	11.8564
721.93	16.1733
722.20	16.1744
722.78	21.5684
722.78	21.5684
722.89	21.5693
722.95	21.5693
723.30	15.0999
724.18	16.1818
727.18	19.4313
733.00	19.4568
735.90	20.5512
739.58	17.3207
742.81	11.9166
744.21	19.5060
747.13	20.6031
751.79	9.7695
752.31	10.8562
753.82	16.2898
755.35	21.7271
756.15	20.6444
756.87	20.6477
763.93	22.8570
765.79	21.7773
766.42	20.6913
766.84	21.7822
776.49	25.1023
778.00	22.9272
778.57	24.0217
778.89	25.1158
783.80	29.5148
785.46	26.2447
792.07	32.8528

795.84	18.6315
796.30	18.6336
798.80	28.5137
801.93	21.9482
805.60	16.4740
810.29	21.9873
810.76	21.9893
815.85	16.5095
817.79	20.1868
818.51	23.8608
819.60	23.8661
826.30	22.0610
828.27	29.4271
831.60	19.3248
831.96	22.0874
834.83	21.1793
836.80	0.0000
846.75	25.8472
848.13	23.0845
856.28	0.0000
856.80	15.7251
860.37	17.5879
867.32	14.8317
867.82	14.8333
871.10	10.2046
873.19	17.6335
874.81	17.6393
875.33	0.0000
876.40	15.7877
879.36	14.8678
880.27	18.5881
880.51	18.5889
881.50	20.4518
883.24	22.3188
884.67	14.8835
889.25	20.4836
896.60	15.8514
898.02	17.7209
899.00	15.8586
903.28	22.4077
911.07	5.6105
911.07	5.6105
911.07	5.6105
919.63	10.3031
920.93	9.3687
925.00	9.3762
925.24	10.3143
926.50	15.0062
935.52	19.7298
937.48	16.9178
944.10	19.7623
946.00	17.8867
949.00	15.0710
962.29	14.1647
964.01	13.2247
966.15	17.0098
968.20	17.9617
969.11	17.0193
969.11	17.0193
969.11	17.0193
977.42	18.9396
980.50	15.1605
983.50	15.1689
989.30	16.1343
996.32	19.9567
1001.03	11.4136
1001.68	14.6763
1004.76	12.3732
1021.30	0.0000
1024.50	0.0000
1034.80	11.4834
1036.00	13.4001
1037.82	19.1496
1038.57	16.2792
1038.76	0.0000
1045.16	18.2161
1046.59	20.1387
1048.07	12.4700

1050.47	10.5560
1050.47	10.5560
1062.04	12.5007
1063.62	13.4662
1076.63	14.4611
1077.35	15.4271
1078.86	24.1109
1085.78	18.3467
1099.22	8.7107
1112.02	8.7297
1112.84	8.7308
1115.52	13.5876
1120.29	11.6558
1120.29	11.6558
1120.29	11.6558
1120.29	11.6558
1120.51	9.7135
1121.28	13.6007
1124.00	0.0000
1129.67	14.5929
1131.51	0.0000
1147.95	0.0000
1167.94	6.8536
1173.22	15.6790
1175.09	9.8027
1177.93	8.8264
1189.05	12.7725
1204.90	16.7454
1205.75	12.8069
1213.00	19.7257
1221.42	23.7031
1230.97	17.8044
1235.34	13.8576
1236.41	0.0000
1238.25	14.8541
1246.25	15.8646
1260.41	0.0000
1271.85	12.9418
1274.45	9.9593
1274.54	9.9593
1291.56	13.9795
1298.22	0.0000
1312.09	13.0217
1325.50	7.0259
1325.50	7.0259
1332.49	9.0428
1333.61	10.0496
1360.21	8.0716
1362.66	0.0000
1365.15	12.1162
1368.21	12.1216
1368.53	0.0000
1376.25	15.1703
1384.27	13.1629
1394.10	6.0840
1395.20	4.0566
1407.95	10.1603
1434.06	13.2581
1436.60	11.2225
1457.56	0.0000
1460.81	7.1661
1489.15	3.0834
1509.49	8.2454
1596.49	4.1714
1620.62	8.3695
1678.03	0.0000
1691.02	9.5013
1691.02	9.5013
1706.46	0.0000
1750.46	0.0000
1764.49	6.3928
1764.49	6.3928
1764.49	6.3928
1764.49	6.3928
1770.23	8.5296
1771.40	7.4646
1791.20	0.0000
1808.65	9.6412

1836.01	2.1495

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202041817

Total Uranium Activity	-8.0281E-01	ug/g
Total Uranium Counting Unc.	1.3451E+00	ug/g
Total Uranium Tpu	6.8626E-07	ug/g
Total Uranium Mda	1.1815E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 952641                    SAMPLE ID  : G1202041817      *
*   ANALYST       : MXR1                      DETECTOR   : GAM14            *
*   SAMPLE DATE   : 15-FEB-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 15:22:32.76    SAMPLE ALQT:  145.530 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.652E-02
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 6.417E-03
        GROSS GAMMA MDA    (pCi/GRAM  )   : 7.006E-02
        GROSS GAMMA DLC    (pCi/GRAM  )   : 3.297E-02
```

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 18:55:14.87

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041818.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 16:54:43
Sample ID         : G1202041818          Sample quantity  : 1.09860E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.15  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.94*	219	338	1.38	148.81	145	13	3.05E-02	16.7	8.87E-01
2	3	77.29*	331	324	1.34	153.50	145	13	4.59E-02	11.9	
3	0	87.31	107	348	1.21	173.53	171	7	1.48E-02	30.5	
4	0	186.03*	101	309	1.25	370.97	364	12	1.40E-02	38.0	
5	0	209.47	84	255	1.93	417.85	412	10	1.16E-02	37.4	
6	5	238.74*	866	189	1.32	476.39	471	19	1.20E-01	4.6	1.39E+00
7	5	241.67	225	278	2.47	482.25	471	19	3.13E-02	22.9	
8	0	295.20*	232	191	1.13	589.29	584	12	3.23E-02	13.9	
9	0	338.67	160	246	1.39	676.24	669	13	2.22E-02	21.7	
10	0	352.02*	408	150	1.26	702.95	696	14	5.66E-02	8.3	
11	0	511.22*	110	126	1.88	1021.35	1013	18	1.53E-02	29.3	
12	0	583.17*	280	70	1.65	1165.25	1158	14	3.88E-02	9.1	
13	0	609.48*	315	71	1.54	1217.87	1211	16	4.38E-02	8.8	
14	0	728.02*	63	75	2.20	1454.97	1446	15	8.75E-03	33.0	
15	0	860.94	60	54	0.86	1720.85	1714	18	8.33E-03	31.5	
16	0	911.04*	167	51	1.60	1821.06	1815	12	2.32E-02	11.9	
17	0	969.19*	59	67	1.36	1937.38	1935	10	8.19E-03	32.9	
18	0	1120.03*	70	63	1.67	2239.13	2231	16	9.74E-03	28.7	
19	0	1460.39*	1132	36	1.94	2920.03	2911	19	1.57E-01	3.3	
20	0	1763.89*	38	9	1.93	3527.27	3521	12	5.22E-03	25.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 18:55:17

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041818.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 8-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 16:54:43
Sample ID : G1202041818 Sample quantity : 109.86 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.15 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.751E+01	4.427E+00	7.511E-01	7.381E-02	49.939
CD-109	+	88.03	*	2.256E+00	1.403E+00	2.034E+00	2.525E-01	1.109
SN-126		64.28		1.369E+00	9.757E-01	1.611E+00	2.728E-01	0.850
	+	86.94		9.216E-01	6.839E-01	8.562E-01	3.620E-01	1.076
	+	87.57	*	2.217E-01	1.379E-01	2.040E-01	2.524E-02	1.087
TL-208		277.35		-2.074E-01	5.368E-01	8.634E-01	1.206E-01	-0.240
	+	510.84		7.219E-01	4.311E-01	2.783E-01	3.341E-02	2.594
	+	583.14	*	5.181E-01	1.057E-01	8.377E-02	7.672E-03	6.184
	+	860.37		1.045E+00	6.658E-01	5.922E-01	5.791E-02	1.764
BI-211		72.87		1.112E+01	5.755E+00	8.894E+00	1.019E+00	1.250
	+	351.07	*	3.429E+00	6.608E-01	4.613E-01	4.593E-02	7.435
PB-212	+	74.81		2.161E+00	7.881E-01	8.662E-01	1.284E-01	2.495
	+	77.11		1.791E+00	4.742E-01	4.776E-01	5.536E-02	3.751
	+	87.30		1.025E+00	6.461E-01	9.240E-01	1.468E-01	1.110
	+	238.63	*	1.612E+00	2.420E-01	1.257E-01	1.497E-02	12.819
		300.09		5.708E-01	1.237E+00	1.825E+00	2.205E-01	0.313
PO-212	+	74.81		2.161E+00	7.881E-01	8.662E-01	1.284E-01	2.495
	+	77.11		1.791E+00	4.742E-01	4.776E-01	5.536E-02	3.751
	+	87.30		1.025E+00	6.461E-01	9.240E-01	1.468E-01	1.110
		115.19		-2.754E+00	4.989E+00	7.916E+00	8.012E-01	-0.348
	+	238.63	*	1.612E+00	2.420E-01	1.257E-01	1.497E-02	12.819
		300.09		5.708E-01	1.237E+00	1.825E+00	2.205E-01	0.313
BI-214	+	609.31	*	1.099E+00	2.224E-01	1.462E-01	1.449E-02	7.517
	+	1120.29		1.294E+00	7.553E-01	6.988E-01	7.533E-02	1.851
	+	1764.49		9.494E-01	4.884E-01	3.897E-01	3.417E-02	2.436
PB-214	+	74.81		3.724E+00	1.341E+00	1.492E+00	2.042E-01	2.495
	+	77.11		3.071E+00	8.460E-01	8.187E-01	1.136E-01	3.751
	+	87.30		1.756E+00	1.101E+00	1.583E+00	2.304E-01	1.110
	+	241.98		2.519E+00	1.196E+00	7.568E-01	9.363E-02	3.329
	+	295.21		1.166E+00	3.534E-01	3.189E-01	3.932E-02	3.655
	+	351.92	*	1.193E+00	2.382E-01	1.608E-01	1.804E-02	7.421
PO-214	+	74.81		3.724E+00	1.341E+00	1.492E+00	2.042E-01	2.495
	+	77.11		3.071E+00	8.460E-01	8.187E-01	1.136E-01	3.751
	+	87.30		1.756E+00	1.101E+00	1.583E+00	2.304E-01	1.110

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.519E+00	1.196E+00	7.568E-01	9.363E-02	3.329
	+	295.21		1.166E+00	3.534E-01	3.189E-01	3.932E-02	3.655
	+	351.92	*	1.193E+00	2.382E-01	1.608E-01	1.804E-02	7.421
PO-216	+	74.81		2.161E+00	7.881E-01	8.662E-01	1.284E-01	2.495
	+	77.11		1.791E+00	4.742E-01	4.776E-01	5.536E-02	3.751
	+	87.30		1.025E+00	6.461E-01	9.240E-01	1.468E-01	1.110
	+	238.63	*	1.612E+00	2.420E-01	1.257E-01	1.497E-02	12.819
		300.09		5.708E-01	1.237E+00	1.825E+00	2.205E-01	0.313
PO-218	+	74.81		3.724E+00	1.341E+00	1.492E+00	2.042E-01	2.495
	+	77.11		3.071E+00	8.460E-01	8.187E-01	1.136E-01	3.751
	+	87.30		1.756E+00	1.101E+00	1.583E+00	2.304E-01	1.110
	+	241.98		2.519E+00	1.196E+00	7.568E-01	9.363E-02	3.329
	+	295.21		1.166E+00	3.534E-01	3.189E-01	3.932E-02	3.655
	+	351.92	*	1.193E+00	2.382E-01	1.608E-01	1.804E-02	7.421
RA-224	+	240.98	*	4.776E+00	2.252E+00	1.430E+00	1.578E-01	3.339
RA-226	+	609.31	*	1.099E+00	2.224E-01	1.462E-01	1.449E-02	7.517
	+	1120.29		1.294E+00	7.553E-01	6.988E-01	7.533E-02	1.851
	+	1764.49		9.494E-01	4.884E-01	3.897E-01	3.417E-02	2.436
AC-228	+	338.32		1.488E+00	8.941E-01	5.531E-01	2.297E-01	2.690
	+	911.07	*	1.376E+00	3.667E-01	2.978E-01	3.508E-02	4.622
	+	969.11		8.614E-01	6.014E-01	6.891E-01	1.623E-01	1.250
RA-228	+	338.32		1.488E+00	8.941E-01	5.531E-01	2.297E-01	2.690
	+	911.07	*	1.376E+00	3.667E-01	2.978E-01	3.508E-02	4.622
	+	969.11		8.614E-01	6.014E-01	6.891E-01	1.623E-01	1.250
TH-228	+	74.81		2.194E+00	7.738E-01	8.794E-01	1.016E-01	2.495
	+	77.11		1.819E+00	4.815E-01	4.848E-01	5.620E-02	3.751
	+	87.30		1.041E+00	6.476E-01	9.381E-01	1.158E-01	1.110
	+	238.63	*	1.636E+00	2.457E-01	1.276E-01	1.520E-02	12.819
		300.09		5.795E-01	1.300E+00	1.853E+00	1.104E+00	0.313
TH-230	+	609.31	*	1.099E+00	2.224E-01	1.462E-01	1.449E-02	7.517
	+	1120.29		1.294E+00	7.553E-01	6.988E-01	7.533E-02	1.851
	+	1764.49		9.493E-01	4.884E-01	3.897E-01	3.417E-02	2.436
TH-232	+	338.32		1.488E+00	6.626E-01	5.531E-01	5.453E-02	2.690
	+	911.07	*	1.376E+00	3.667E-01	2.978E-01	3.508E-02	4.622
	+	969.11		8.614E-01	6.014E-01	6.891E-01	1.623E-01	1.250
U-234	+	609.31	*	1.099E+00	2.224E-01	1.462E-01	1.449E-02	7.517
	+	1120.29		1.294E+00	7.553E-01	6.988E-01	7.533E-02	1.851
	+	1764.49		9.493E-01	4.884E-01	3.897E-01	3.417E-02	2.436
NP-237	+	86.50	*	6.510E-01	4.267E-01	5.494E-01	1.319E-01	1.185
		95.87		-4.811E+00	1.964E+00	2.209E+00	5.666E-01	-2.178
AM-243	+	74.67	*	3.504E-01	1.235E-01	1.439E-01	1.655E-02	2.435
	+	86.72		2.441E+01	1.519E+01	2.052E+01	2.522E+00	1.190
		117.66		4.464E+00	5.359E+00	8.993E+00	9.073E-01	0.496
		142.18		-1.483E+00	2.483E+01	4.006E+01	4.065E+00	-0.037
ANH-511	+	511.00	*	1.559E-01	9.221E-02	6.012E-02	5.195E-03	2.593

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.493E-01	4.390E-01	7.333E-01	6.817E-02	0.204

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	-4.046E-02	6.348E-02	9.519E-02	8.647E-03	-0.425
NA-24		1368.53	*	2.271E-01	6.348E-02	Half-Life too short		
AL-26		1129.67		2.674E+00	2.350E+00	4.161E+00	3.515E-01	0.643
		1808.65	*	7.910E-03	3.443E-02	5.951E-02	5.091E-03	0.133
TI-44		67.85		-1.002E-01	8.073E-02	1.254E-01	1.431E-02	-0.799
	+	78.38	*	3.306E-01	8.751E-02	1.155E-01	1.346E-02	2.863
SC-46		889.25	*	-1.106E-02	5.040E-02	8.141E-02	7.565E-03	-0.136
	+	1120.51		2.216E-01	1.286E-01	1.644E-01	1.398E-02	1.348
V-48		944.10		-1.282E+00	1.241E+00	1.821E+00	1.684E-01	-0.704
		983.50	*	-5.385E-02	9.126E-02	1.400E-01	1.280E-02	-0.385
		1312.09		-2.214E-02	1.144E-01	1.802E-01	1.698E-02	-0.123
CR-51		320.08	*	2.802E-01	5.441E-01	9.265E-01	9.838E-02	0.302
MN-52		744.21		1.596E-01	3.356E-01	5.799E-01	5.019E-02	0.275
		848.13		-7.096E+00	9.189E+00	1.408E+01	1.285E+00	-0.504
		935.52		3.201E-01	3.733E-01	6.574E-01	6.090E-02	0.487
		1246.25		5.284E+00	1.094E+01	1.848E+01	1.629E+00	0.286
		1333.61		-2.060E+00	6.661E+00	1.025E+01	9.859E-01	-0.201
		1434.06	*	2.290E-01	2.969E-01	5.470E-01	5.265E-02	0.419
MN-54		834.83	*	3.742E-02	4.940E-02	8.684E-02	7.881E-03	0.431
CO-56		846.75	*	-2.424E-02	5.362E-02	8.511E-02	7.766E-03	-0.285
		977.42		2.276E+00	3.986E+00	6.495E+00	5.949E-01	0.350
		1037.82		-3.749E-01	3.904E-01	5.646E-01	5.299E-02	-0.664
		1175.09		1.711E+00	3.108E+00	5.311E+00	4.332E-01	0.322
		1238.25		2.849E-02	1.407E-01	2.322E-01	2.086E-02	0.123
		1360.21		5.362E-01	1.129E+00	2.014E+00	1.939E-01	0.266
		1771.40		-9.147E-01	4.038E-01	3.630E-01	3.171E-02	-2.520
CO-57		122.06	*	-2.482E-02	3.519E-02	5.523E-02	5.564E-03	-0.449
		136.48		5.138E-02	2.972E-01	4.847E-01	5.154E-02	0.106
CO-58		810.76	*	-2.562E-02	4.631E-02	7.244E-02	6.512E-03	-0.354
FE-59		142.65		-5.315E-01	3.974E+00	6.286E+00	6.385E-01	-0.085
		192.34		-4.839E-01	1.397E+00	2.114E+00	3.164E-01	-0.229
		1099.22	*	6.931E-02	1.348E-01	2.299E-01	2.145E-02	0.301
		1291.56		1.198E-01	1.950E-01	3.335E-01	3.445E-02	0.359
CO-60		1173.22		8.730E-02	6.161E-02	1.128E-01	9.178E-03	0.774
		1332.49	*	-2.517E-02	5.291E-02	7.951E-02	7.644E-03	-0.317
ZN-65		1115.52	*	9.214E-02	1.507E-01	2.267E-01	1.937E-02	0.406
GE-68		1077.35	*	-3.403E-01	1.675E+00	2.677E+00	2.343E-01	-0.127
AS-73		53.44	*	1.437E-01	2.277E+00	3.790E+00	4.920E-01	0.038
AS-74		595.88	*	-9.929E-02	1.319E-01	1.992E-01	1.693E-02	-0.498
		634.78		-1.466E-01	4.274E-01	6.623E-01	5.531E-02	-0.221
SE-75		66.05		-3.476E-01	8.636E+00	1.424E+01	1.829E+00	-0.024
		96.73		-5.245E+00	1.479E+00	1.699E+00	2.604E-01	-3.087
		121.11		-9.480E-02	1.904E-01	3.021E-01	3.736E-02	-0.314
		136.00		3.159E-02	5.581E-02	9.241E-02	9.354E-03	0.342
		198.60		-3.453E-01	2.619E+00	4.075E+00	4.757E-01	-0.085
		264.65	*	-4.652E-02	5.991E-02	9.580E-02	1.050E-02	-0.486
		279.53		3.986E-02	1.515E-01	2.560E-01	2.833E-02	0.156
		303.91		-2.376E+00	2.955E+00	4.676E+00	6.055E-01	-0.508
		400.65		-5.944E-02	3.372E-01	5.477E-01	6.016E-02	-0.109

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	87.88		4.999E+02	3.110E+02	4.941E+02	6.130E+01	1.012
		200.40		2.493E+00	2.363E+02	3.778E+02	4.128E+01	0.007
	+	239.00		2.655E+02	3.805E+01	4.991E+01	5.506E+00	5.320
		249.79		-1.135E+02	9.573E+01	1.448E+02	1.594E+01	-0.784
		281.68		-3.752E+01	1.326E+02	2.180E+02	2.352E+01	-0.172
		297.23		2.930E+02	1.062E+02	1.712E+02	1.814E+01	1.712
		303.76		-1.863E+02	2.586E+02	4.124E+02	4.332E+01	-0.452
		439.47		6.092E+01	1.951E+02	3.265E+02	2.798E+01	0.187
		484.57		-1.359E+02	3.006E+02	4.714E+02	4.071E+01	-0.288
		520.65	*	-3.340E+00	1.489E+01	2.306E+01	1.991E+00	-0.145
		574.64		-1.273E+02	3.043E+02	4.430E+02	3.789E+01	-0.287
		578.91		1.226E+02	1.227E+02	1.913E+02	1.634E+01	0.641
		585.48		1.629E+03	3.873E+02	6.672E+02	5.689E+01	2.441
		755.35		3.388E+01	2.236E+02	3.772E+02	3.286E+01	0.090
		817.79		4.753E+01	1.617E+02	2.762E+02	2.486E+01	0.172
SR-82		698.33		3.125E+01	4.761E+01	8.322E+01	7.007E+00	0.376
		776.49	*	-4.393E-01	4.826E-01	7.331E-01	6.460E-02	-0.599
		1395.20		8.915E+00	1.227E+01	2.264E+01	2.182E+00	0.394
RB-83		520.41	*	-3.145E-02	1.005E-01	1.491E-01	1.287E-02	-0.211
		529.64		3.612E-02	1.452E-01	2.401E-01	2.072E-02	0.150
		552.65		1.540E-01	2.683E-01	4.536E-01	3.901E-02	0.340
RB-84		881.50	*	8.596E-03	9.493E-02	1.582E-01	1.465E-02	0.054
KR-85		513.99	*	2.845E+01	1.122E+01	1.908E+01	1.648E+00	1.491
SR-85		513.99	*	1.460E-01	5.757E-02	9.791E-02	8.459E-03	1.491
RB-86		1076.63	*	-3.487E-01	1.108E+00	1.751E+00	1.533E-01	-0.199
Y-88		898.02		-1.906E-02	5.838E-02	9.346E-02	8.752E-03	-0.204
		1836.01	*	5.058E-02	4.384E-02	8.717E-02	7.342E-03	0.580
ZR-88		392.90	*	6.148E-03	4.270E-02	7.090E-02	5.968E-03	0.087
Y-91		1204.90	*	8.432E+00	2.838E+01	4.720E+01	3.980E+00	0.179
NB-94		702.63	*	-3.506E-02	4.365E-02	6.816E-02	5.755E-03	-0.514
		871.10		7.336E-03	4.987E-02	7.769E-02	7.165E-03	0.094
NB-95		765.79	*	2.680E-02	5.933E-02	1.020E-01	8.934E-03	0.263
NB-95M		235.69	*	3.233E-01	2.080E-01	3.252E-01	3.913E-02	0.994
ZR-95		724.18		-6.020E-02	1.527E-01	2.103E-01	1.957E-02	-0.286
		756.15	*	4.943E-02	9.263E-02	1.610E-01	1.542E-02	0.307
NB-97		657.90	*	2.729E-04	9.263E-02	Half-Life too short		
		1024.50		-1.996E+00	9.263E-02	Half-Life too short		
ZR-97		254.15		2.481E-01	9.263E-02	Half-Life too short		
		355.39		3.252E+00	9.263E-02	Half-Life too short		
		507.63	*	5.113E+00	9.263E-02	Half-Life too short		
		602.52		-1.089E+01	9.263E-02	Half-Life too short		
		1021.30		2.819E+00	9.263E-02	Half-Life too short		
		1147.95		8.460E-01	9.263E-02	Half-Life too short		
		1362.66		1.637E+00	9.263E-02	Half-Life too short		
		1750.46		5.756E+00	9.263E-02	Half-Life too short		
MO-99		140.51		-2.995E+01	3.859E+01	5.882E+01	1.658E+01	-0.509
		181.06		-8.631E+00	2.708E+01	3.698E+01	7.176E+00	-0.233
		366.43		-1.546E+00	1.099E+02	1.812E+02	1.661E+01	-0.009
		739.58	*	8.505E+00	1.574E+01	2.732E+01	4.150E+00	0.311

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-1.942E+01	4.330E+01	6.902E+01	6.088E+00	-0.281
TC-99M		140.51	*	-5.425E+10	4.330E+01	Half-Life too short		
RH-101		127.23		-3.569E-02	4.274E-02	6.650E-02	6.673E-03	-0.537
		198.01	*	5.082E-03	4.771E-02	7.512E-02	8.196E-03	0.068
		325.23		-1.248E-01	3.268E-01	5.309E-01	5.379E-02	-0.235
RH-102		418.52		-4.976E-01	3.925E-01	5.820E-01	4.955E-02	-0.855
		475.06	*	2.587E-02	3.959E-02	6.752E-02	5.826E-03	0.383
		631.29		-3.982E-02	6.611E-02	9.958E-02	8.330E-03	-0.400
		697.49		1.176E-01	1.066E-01	1.914E-01	1.611E-02	0.614
		766.84		8.807E-02	1.494E-01	2.590E-01	2.271E-02	0.340
		1046.59		4.067E-02	1.598E-01	2.679E-01	2.385E-02	0.152
		1112.84		8.407E-02	3.703E-01	5.332E-01	4.560E-02	0.158
RU-103		497.08	*	1.306E-02	5.178E-02	8.592E-02	1.218E-02	0.152
	+	610.33		1.189E+01	2.879E+00	3.492E+00	5.795E-01	3.404
RH-106	+	511.85		7.790E-01	4.606E-01	5.822E-01	5.030E-02	1.338
		621.84	*	1.607E-01	4.448E-01	7.361E-01	9.731E-02	0.218
		1050.47		1.956E-01	3.276E+00	5.390E+00	4.789E-01	0.036
RU-106	+	511.85		7.790E-01	4.606E-01	5.822E-01	5.030E-02	1.338
		621.84	*	1.607E-01	4.445E-01	7.361E-01	6.186E-02	0.218
		1050.47		1.956E-01	3.276E+00	5.390E+00	4.789E-01	0.036
AG-108M		433.93	*	-6.742E-03	4.251E-02	6.881E-02	6.125E-03	-0.098
		614.37		1.240E-02	5.696E-02	8.163E-02	7.166E-03	0.152
		722.95		-8.141E-03	5.868E-02	8.303E-02	7.380E-03	-0.098
AG-110M		657.75	*	2.365E-03	4.263E-02	7.188E-02	6.116E-03	0.033
		677.61		-8.336E-02	4.001E-01	6.594E-01	5.644E-02	-0.126
		706.67		1.669E-03	2.685E-01	4.493E-01	3.911E-02	0.004
		763.93		-1.726E-01	2.261E-01	3.530E-01	3.174E-02	-0.489
		884.67		6.174E-03	6.423E-02	1.071E-01	1.021E-02	0.058
		937.48		-1.055E-01	1.624E-01	2.511E-01	2.398E-02	-0.420
		1384.27		-6.004E-02	1.910E-01	3.043E-01	2.998E-02	-0.197
IN-111		171.28		1.684E-01	1.441E+00	2.329E+00	2.495E-01	0.072
		245.39	*	2.106E+00	1.648E+00	2.592E+00	2.856E-01	0.813
IN-113M		391.69	*	3.093E-02	6.010E-02	1.021E-01	8.867E-03	0.303
SN-113		391.69	*	3.093E-02	6.010E-02	1.021E-01	8.867E-03	0.303
IN-114M		190.27	*	1.012E-01	2.905E-01	4.147E-01	4.503E-02	0.244
CD-115		260.90		-1.010E+01	1.815E+02	3.029E+02	3.319E+01	-0.033
		492.35		-2.428E+01	4.626E+01	7.185E+01	6.208E+00	-0.338
		527.90	*	1.804E+00	1.527E+01	2.500E+01	2.158E+00	0.072
SN-117M		156.02		1.652E-01	3.274E+00	5.290E+00	5.514E-01	0.031
		158.56	*	9.325E-03	7.896E-02	1.279E-01	1.341E-02	0.073
SB-122		563.90	*	2.815E-02	3.123E+00	4.929E+00	4.228E-01	0.006
		692.80		-1.127E+01	6.308E+01	1.042E+02	8.746E+00	-0.108
I-123		159.00	*	4.437E+00	6.308E+01	Half-Life too short		
		528.96		-2.890E+01	6.308E+01	Half-Life too short		
TE-123M		159.00	*	1.962E-02	4.029E-02	6.624E-02	6.980E-03	0.296
I-124		602.71	*	-6.153E-01	1.139E+00	1.485E+00	1.258E-01	-0.414
		722.78		-7.811E-01	6.225E+00	8.824E+00	7.542E-01	-0.089
		1325.50		3.312E+01	5.188E+01	8.973E+01	8.568E+00	0.369
		1376.25		4.547E+01	4.148E+01	7.739E+01	7.457E+00	0.588

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1509.49		1.126E+01	2.048E+01	3.662E+01	3.497E+00	0.308
		1691.02		-1.450E+00	5.683E+00	8.958E+00	8.128E-01	-0.162
SB-124		602.71		-3.528E-02	6.532E-02	8.516E-02	7.217E-03	-0.414
		645.85		1.300E-01	6.795E-01	1.109E+00	9.800E-02	0.117
		709.31		-1.171E+00	3.634E+00	5.919E+00	5.018E-01	-0.198
		713.82		8.497E-01	2.189E+00	3.765E+00	4.500E-01	0.226
		722.78		-6.492E-02	5.174E-01	7.335E-01	6.407E-02	-0.089
	+	968.20		8.877E+00	5.890E+00	8.742E+00	8.031E-01	1.015
		1045.16		6.380E-01	3.316E+00	5.530E+00	4.927E-01	0.115
		1325.50		2.940E+00	4.606E+00	7.966E+00	7.606E-01	0.369
		1368.21		3.138E-01	2.142E+00	3.653E+00	5.167E-01	0.086
		1436.60		2.793E+00	4.341E+00	7.929E+00	7.631E-01	0.352
		1691.02	*	-2.843E-02	1.114E-01	1.756E-01	1.651E-02	-0.162
SB-125		427.89	*	-6.139E-02	1.238E-01	1.955E-01	1.702E-02	-0.314
		463.38		8.413E-01	4.147E-01	7.488E-01	6.957E-02	1.123
		600.56		3.571E-01	2.476E-01	4.390E-01	4.007E-02	0.813
		635.90		2.617E-02	3.215E-01	5.208E-01	4.720E-02	0.050
TE-125M		109.28	*	-1.268E+01	1.351E+01	2.058E+01	2.417E+00	-0.616
I-126		388.63		-6.601E-02	2.766E-01	4.482E-01	3.814E-02	-0.147
		666.33	*	8.590E-02	2.112E-01	3.661E-01	3.019E-02	0.235
		753.82		-2.860E-01	1.929E+00	3.175E+00	2.763E-01	-0.090
SB-126		223.80		6.706E-01	5.882E+00	9.946E+00	1.096E+00	0.067
		278.60		8.974E-01	3.532E+00	5.869E+00	6.349E-01	0.153
	+	296.50		1.166E+01	3.460E+00	4.615E+00	4.895E-01	2.527
		414.70		-1.316E-02	1.018E-01	1.656E-01	1.408E-02	-0.079
		415.30		-9.731E-01	8.500E+00	1.384E+01	1.177E+00	-0.070
		555.20		-2.333E+00	5.528E+00	8.631E+00	7.418E-01	-0.270
		573.80		-1.510E+00	1.419E+00	2.074E+00	1.774E-01	-0.728
		593.00		-2.999E-01	1.301E+00	2.057E+00	1.750E-01	-0.146
		656.30		4.552E+00	4.150E+00	7.535E+00	6.215E-01	0.604
		666.33		3.590E-02	8.826E-02	1.530E-01	1.262E-02	0.235
		675.00		-3.448E-01	2.552E+00	4.230E+00	3.509E-01	-0.081
		695.00		7.912E-02	1.125E-01	1.971E-01	1.656E-02	0.401
		697.00		6.071E-01	3.740E-01	6.903E-01	5.807E-02	0.879
		720.50	*	9.916E-02	2.214E-01	3.350E-01	2.860E-02	0.296
		856.80		4.466E-01	7.142E-01	1.097E+00	1.006E-01	0.407
		989.30		1.161E+00	1.796E+00	3.120E+00	2.846E-01	0.372
		1034.80		2.318E+00	1.109E+01	1.856E+01	1.662E+00	0.125
		1213.00		3.399E+00	6.868E+00	1.161E+01	9.877E-01	0.293
SB-127		61.10		-6.981E+01	1.140E+02	1.832E+02	2.456E+01	-0.381
		252.40		8.774E-01	5.905E+00	9.949E+00	4.238E+00	0.088
		290.80		1.374E+01	3.294E+01	4.917E+01	6.315E+00	0.279
		411.60		-5.108E+00	1.764E+01	2.840E+01	4.452E+00	-0.180
		444.90		8.815E+00	1.307E+01	2.235E+01	2.801E+00	0.394
		473.00		-5.913E-01	2.368E+00	3.791E+00	4.887E-01	-0.156
		543.00		-1.071E+00	2.190E+01	3.534E+01	5.093E+00	-0.030
		603.60		-2.362E+01	2.066E+01	2.477E+01	3.078E+00	-0.954
		685.20	*	-9.228E-01	1.844E+00	2.961E+00	3.318E-01	-0.312
		698.50		1.394E+01	2.178E+01	3.789E+01	5.959E+00	0.368

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.20		4.934E+00	4.255E+01	6.215E+01	6.916E+00	0.079
		783.80		5.057E-01	4.582E+00	7.694E+00	9.694E-01	0.066
XE-127		57.60		2.537E+00	1.357E+01	2.266E+01	2.664E+00	0.112
		145.22		5.417E-01	1.023E+00	1.661E+00	1.694E-01	0.326
		172.10		6.361E-02	1.681E-01	2.747E-01	2.944E-02	0.232
		202.84	*	-3.197E-02	7.306E-02	1.046E-01	1.145E-02	-0.306
		374.96		1.413E-01	2.596E-01	4.428E-01	3.951E-02	0.319
I-131		80.18		-4.095E+00	7.628E+00	1.066E+01	1.257E+00	-0.384
		284.30		1.032E+00	2.144E+00	3.658E+00	4.069E-01	0.282
		364.48	*	-2.244E-02	1.502E-01	2.454E-01	2.370E-02	-0.091
		636.97		-5.327E-01	1.913E+00	2.988E+00	2.641E-01	-0.178
		722.89		-1.335E+00	9.961E+00	1.410E+01	1.213E+00	-0.095
TE-132		49.72		-4.534E+01	6.755E+01	1.085E+02	1.641E+01	-0.418
		111.76		-9.019E+00	4.126E+01	6.657E+01	8.099E+00	-0.135
		116.30		-3.833E+00	4.007E+01	6.495E+01	7.851E+00	-0.059
		228.16	*	-1.803E-01	1.016E+00	1.695E+00	2.910E-01	-0.106
BA-133		53.15		-1.175E+00	1.003E+01	1.656E+01	2.164E+00	-0.071
		79.62		3.139E+00	2.247E+00	3.376E+00	5.797E-01	0.930
		81.00		-2.576E-01	1.715E-01	2.181E-01	3.885E-02	-1.181
		276.40		-3.352E-02	5.283E-01	8.650E-01	1.373E-01	-0.039
		302.84		1.108E-01	2.064E-01	3.435E-01	5.012E-02	0.323
		356.01	*	1.411E-02	6.873E-02	1.002E-01	1.378E-02	0.141
		383.85		7.190E-02	4.165E-01	6.934E-01	8.757E-02	0.104
I-133	+	510.53		1.702E+00	4.165E-01	Half-Life too short		
		529.87	*	1.575E-03	4.165E-01	Half-Life too short		
		706.58		-4.167E-02	4.165E-01	Half-Life too short		
		856.28		5.298E-01	4.165E-01	Half-Life too short		
		875.33		1.011E-01	4.165E-01	Half-Life too short		
		1236.41		5.676E-01	4.165E-01	Half-Life too short		
		1298.22		-2.083E-01	4.165E-01	Half-Life too short		
CS-134		475.35		1.364E+00	2.577E+00	4.361E+00	3.763E-01	0.313
		563.23		1.619E-01	5.290E-01	8.535E-01	7.393E-02	0.190
		569.32		2.667E-01	2.722E-01	4.712E-01	4.092E-02	0.566
		604.70		-6.862E-02	5.687E-02	6.765E-02	5.743E-03	-1.014
		795.84	*	6.341E-02	6.246E-02	1.117E-01	1.001E-02	0.568
		801.93		-1.771E-02	5.284E-01	8.752E-01	7.857E-02	-0.020
		1038.57		-1.723E+00	4.753E+00	7.452E+00	6.661E-01	-0.231
		1167.94		-3.382E+00	3.504E+00	5.110E+00	4.179E-01	-0.662
		1365.15		-1.324E+00	1.487E+00	2.143E+00	2.139E-01	-0.618
CS-135		268.24	*	1.951E-01	2.253E-01	3.896E-01	4.675E-02	0.501
I-135		288.45		-5.003E+10	2.253E-01	Half-Life too short		
		417.63		-3.186E+10	2.253E-01	Half-Life too short		
		546.56		-1.502E+10	2.253E-01	Half-Life too short		
		836.80		-1.271E+10	2.253E-01	Half-Life too short		
		1038.76		-5.296E+09	2.253E-01	Half-Life too short		
		1124.00		1.004E+10	2.253E-01	Half-Life too short		
		1131.51		4.036E+09	2.253E-01	Half-Life too short		
		1260.41	*	3.729E+09	2.253E-01	Half-Life too short		
		1457.56		1.567E+12	2.253E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1678.03		1.341E+10	2.253E-01	Half-Life too short		
		1706.46		-3.880E+10	2.253E-01	Half-Life too short		
		1791.20		4.834E+09	2.253E-01	Half-Life too short		
CS-136		66.91		-7.767E-01	1.388E+00	2.233E+00	3.830E-01	-0.348
	+	86.29		2.906E+00	1.829E+00	2.931E+00	4.549E-01	0.991
		153.22		5.783E-01	9.445E-01	1.560E+00	1.750E-01	0.371
		163.89		-5.113E-01	1.527E+00	2.380E+00	2.732E-01	-0.215
		176.55		1.593E-01	5.116E-01	8.330E-01	9.293E-02	0.191
		273.65		-1.118E+00	6.672E-01	1.005E+00	1.137E-01	-1.113
		340.57		8.272E-01	2.279E-01	3.836E-01	3.847E-02	2.156
		818.51		4.718E-02	8.881E-02	1.549E-01	1.396E-02	0.305
		1048.07	*	8.387E-02	1.542E-01	2.649E-01	2.450E-02	0.317
		1235.34		9.354E-01	8.905E-01	1.552E+00	1.849E-01	0.603
BA-137M		661.65	*	-2.485E-02	4.228E-02	6.729E-02	5.533E-03	-0.369
CS-137		661.65	*	-2.627E-02	4.469E-02	7.114E-02	5.861E-03	-0.369
CE-139		165.85	*	1.559E-02	4.043E-02	6.618E-02	7.064E-03	0.236
BA-140		162.64		-2.641E-01	1.082E+00	1.696E+00	1.866E-01	-0.156
		304.84		-5.762E-01	1.776E+00	2.890E+00	8.281E-01	-0.199
		423.70		3.545E+00	2.876E+00	4.701E+00	1.523E+00	0.754
		537.32	*	2.441E-01	3.635E-01	6.052E-01	2.006E-01	0.403
LA-140		328.77		1.515E-01	4.315E-01	7.279E-01	7.627E-02	0.208
		432.53		2.178E-02	2.646E+00	4.337E+00	3.893E-01	0.005
		487.03		2.163E-02	1.719E-01	2.830E-01	2.595E-02	0.076
		751.79		-1.145E+00	2.325E+00	3.714E+00	3.568E-01	-0.308
		815.85		-1.825E-02	3.724E-01	6.148E-01	6.117E-02	-0.030
		867.82		-1.102E+00	2.132E+00	2.801E+00	2.700E-01	-0.393
		919.63		2.361E-01	3.741E+00	6.072E+00	6.801E-01	0.039
		925.24		-2.072E-01	1.433E+00	2.326E+00	2.277E-01	-0.089
		1596.49	*	-1.202E-01	1.126E-01	1.511E-01	1.417E-02	-0.795
CE-141		145.44	*	4.351E-02	9.102E-02	1.498E-01	1.549E-02	0.290
CE-143		57.37		3.150E-04	9.102E-02	Half-Life too short		
		231.56		-1.012E-03	9.102E-02	Half-Life too short		
		293.26	*	8.708E-04	9.102E-02	Half-Life too short		
	+	350.59		2.842E-02	9.102E-02	Half-Life too short		
		490.36		7.705E-04	9.102E-02	Half-Life too short		
		664.57		1.213E-03	9.102E-02	Half-Life too short		
		721.93		7.395E-04	9.102E-02	Half-Life too short		
CE-144		80.11		-1.376E+00	3.502E+00	4.938E+00	5.804E-01	-0.279
		133.54	*	-2.076E-01	3.023E-01	4.726E-01	7.753E-02	-0.439
PM-144		476.78		2.676E-02	9.105E-02	1.516E-01	1.431E-02	0.176
		618.01		-3.624E-02	5.075E-02	6.795E-02	5.886E-03	-0.533
		696.49	*	6.386E-02	4.969E-02	8.986E-02	7.560E-03	0.711
		778.57		-7.610E-01	2.805E+00	4.548E+00	4.014E-01	-0.167
PR-144		696.49	*	4.328E+00	3.367E+00	6.090E+00	5.121E-01	0.711
		1489.15		6.001E-01	1.368E+01	2.293E+01	2.196E+00	0.026
PM-146		453.90	*	4.765E-02	5.922E-02	1.019E-01	1.091E-02	0.468
		633.02		-1.469E-01	1.613E+00	2.567E+00	9.577E-01	-0.057
		735.90		-1.513E-01	2.040E-01	2.932E-01	8.385E-02	-0.516
		747.13		6.215E-03	1.253E-01	2.098E-01	2.952E-02	0.030

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147		91.11		1.807E-01	5.005E-01	7.295E-01	9.030E-02	0.248
		319.41		3.870E+00	4.812E+00	8.304E+00	8.506E-01	0.466
		439.89		-5.314E-01	7.899E+00	1.287E+01	1.103E+00	-0.041
		531.02	*	1.869E-01	7.701E-01	1.272E+00	1.902E-01	0.147
PM-149		285.90	*	-1.285E+01	1.324E+02	2.197E+02	3.694E+01	-0.058
EU-152		121.78		-7.784E-02	1.024E-01	1.601E-01	1.794E-02	-0.486
		244.69		8.578E-01	5.123E-01	8.170E-01	9.006E-02	1.050
		344.27	*	-1.683E-01	1.808E-01	2.014E-01	2.050E-02	-0.835
		443.98		-1.917E-01	1.294E+00	2.095E+00	1.797E-01	-0.092
		778.89		-7.819E-02	3.190E-01	5.185E-01	4.575E-02	-0.151
		867.32		-1.696E-01	1.183E+00	1.646E+00	1.516E-01	-0.103
		964.01		4.692E-01	4.544E-01	7.176E-01	6.600E-02	0.654
		1085.78		-4.247E-02	5.324E-01	8.617E-01	7.504E-02	-0.049
		1112.02		9.007E-02	5.303E-01	7.575E-01	6.482E-02	0.119
		1407.95		4.003E-02	2.593E-01	4.406E-01	4.245E-02	0.091
GD-153		69.67		-1.636E+00	2.995E+00	4.450E+00	5.080E-01	-0.368
		83.37		1.145E+01	2.360E+01	3.481E+01	4.172E+00	0.329
		97.43	*	-2.937E-01	1.227E-01	1.740E-01	1.921E-02	-1.688
		103.18		-1.234E-01	1.507E-01	2.367E-01	2.503E-02	-0.521
EU-154		123.07		-1.711E-02	6.983E-02	1.121E-01	1.400E-02	-0.153
		247.94		2.845E-01	5.424E-01	8.197E-01	1.096E-01	0.347
		591.81		-1.331E-01	8.620E-01	1.372E+00	1.590E-01	-0.097
		723.30		-4.382E-02	2.507E-01	3.532E-01	3.343E-02	-0.124
		756.87		8.269E-02	1.017E+00	1.706E+00	2.055E-01	0.048
		873.19		-1.174E-01	4.057E-01	6.521E-01	8.270E-02	-0.180
		996.32		-4.101E-01	5.679E-01	8.636E-01	1.555E-01	-0.475
		1004.76		-1.440E-01	2.976E-01	4.641E-01	5.559E-02	-0.310
		1274.45	*	-8.255E-02	1.744E-01	2.666E-01	3.108E-02	-0.310
EU-155		48.70		-6.693E+00	8.798E+00	1.407E+01	1.888E+00	-0.476
		60.01		-1.010E+01	1.036E+01	1.634E+01	1.845E+00	-0.618
	+	86.54		2.670E-01	1.662E-01	2.683E-01	3.309E-02	0.995
		105.31	*	1.286E-03	1.520E-01	2.482E-01	2.615E-02	0.005
TB-160	+	86.79		7.138E-01	4.441E-01	7.147E-01	8.787E-02	0.999
		197.04		5.585E-01	8.088E-01	1.306E+00	1.424E-01	0.428
		215.65		1.533E-01	1.077E+00	1.781E+00	1.959E-01	0.086
		298.57		1.423E-01	1.817E-01	2.736E-01	2.895E-02	0.520
		879.36	*	1.194E-01	1.905E-01	3.321E-01	3.074E-02	0.360
		962.29		-1.706E-02	7.581E-01	1.186E+00	1.091E-01	-0.014
		966.15		9.909E-01	3.856E-01	6.603E-01	6.070E-02	1.501
		1177.93		-8.641E-01	5.466E-01	7.417E-01	6.069E-02	-1.165
		1271.85		-3.538E-02	9.731E-01	1.566E+00	1.417E-01	-0.023
HO-166M		80.57		-4.508E-01	4.486E-01	6.066E-01	7.148E-02	-0.743
		184.41		5.184E-02	5.711E-02	8.666E-02	9.371E-03	0.598
		280.46		-4.270E-02	1.204E-01	1.971E-01	2.129E-02	-0.217
		410.95		7.323E-02	3.436E-01	5.717E-01	4.852E-02	0.128
		711.68	*	5.330E-02	7.986E-02	1.402E-01	1.190E-02	0.380
		752.31		-1.165E-01	3.682E-01	5.975E-01	5.196E-02	-0.195
		810.29		-3.735E-02	7.046E-02	1.106E-01	9.917E-03	-0.338
TM-171		51.35		-1.071E+01	9.368E+01	1.548E+02	2.087E+01	-0.069

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		52.39		1.895E+00	4.537E+01	7.547E+01	1.001E+01	0.025
		59.40		-6.795E+01	5.672E+01	8.827E+01	9.951E+00	-0.770
		66.72	*	-2.390E+01	5.033E+01	8.149E+01	9.301E+00	-0.293
LU-176	+	88.36		5.258E-01	3.271E-01	5.288E-01	6.529E-02	0.994
		201.83		-4.501E-02	4.134E-02	6.198E-02	6.776E-03	-0.726
		306.84	*	-8.290E-03	3.329E-02	5.455E-02	5.704E-03	-0.152
		401.10		-2.917E+00	8.838E+00	1.420E+01	1.200E+00	-0.205
LU-177		112.95		1.929E-01	2.234E+00	3.652E+00	3.713E-01	0.053
	+	208.36	*	2.792E+00	2.113E+00	2.750E+00	3.017E-01	1.015
LU-177M		52.97		-3.907E-01	4.589E+00	7.589E+00	9.952E-01	-0.051
		54.07		1.106E+00	2.237E+00	3.785E+00	4.845E-01	0.292
		61.30		-1.585E+00	2.884E+00	4.653E+00	5.289E-01	-0.341
		121.62		-4.013E-01	5.267E-01	8.245E-01	8.298E-02	-0.487
		147.16		-3.702E-01	9.473E-01	1.504E+00	1.539E-01	-0.246
		171.86		3.356E-01	6.688E-01	1.099E+00	1.177E-01	0.305
		218.09		7.163E-01	1.234E+00	2.123E+00	2.338E-01	0.337
		268.79		1.984E+00	1.150E+00	2.038E+00	2.222E-01	0.973
		319.02		2.226E-01	3.694E-01	6.321E-01	6.478E-02	0.352
		367.43		4.450E-01	1.137E+00	1.925E+00	1.759E-01	0.231
		413.65	*	-1.684E-01	2.433E-01	3.801E-01	3.230E-02	-0.443
HF-181		56.28		-1.517E+00	2.281E+00	3.660E+00	4.443E-01	-0.414
		57.53		1.933E-01	1.144E+00	1.909E+00	2.247E-01	0.101
		65.20		2.333E+00	1.699E+00	2.921E+00	3.335E-01	0.799
		133.02		-3.688E-02	9.587E-02	1.528E-01	1.535E-02	-0.241
		136.25		1.601E-01	6.574E-01	1.075E+00	1.083E-01	0.149
		345.85		-1.707E-01	3.134E-01	4.001E-01	3.875E-02	-0.427
		482.03	*	1.906E-02	5.360E-02	8.980E-02	7.754E-03	0.212
W-181		56.28		-5.953E-01	8.918E-01	1.431E+00	1.737E-01	-0.416
		57.53		7.541E-02	4.476E-01	7.470E-01	8.796E-02	0.101
		65.20	*	9.058E-01	6.596E-01	1.134E+00	1.295E-01	0.799
TA-182		67.75		-1.953E-01	1.906E-01	2.998E-01	3.421E-02	-0.652
		100.10		1.674E-01	2.452E-01	4.112E-01	4.438E-02	0.407
		152.43		3.939E-01	4.834E-01	8.042E-01	8.317E-02	0.490
		222.10		-2.736E-01	5.082E-01	8.351E-01	9.203E-02	-0.328
		1001.68		-2.383E-01	3.015E+00	4.974E+00	4.517E-01	-0.048
	+	1121.28		6.119E-01	3.550E-01	4.479E-01	3.807E-02	1.366
		1189.05		1.064E-02	4.561E-01	7.419E-01	6.146E-02	0.014
		1221.42	*	-1.506E-02	3.032E-01	4.892E-01	4.199E-02	-0.031
		1230.97		-2.274E-01	7.210E-01	1.135E+00	9.845E-02	-0.200
RE-183		57.98		1.866E-01	4.310E-01	7.266E-01	8.465E-02	0.257
		59.32		-1.609E-01	2.272E-01	3.636E-01	4.106E-02	-0.443
		67.20		-2.048E-01	3.507E-01	5.647E-01	6.445E-02	-0.363
		162.32	*	-6.115E-02	1.588E-01	2.472E-01	2.616E-02	-0.247
	+	208.81		2.490E+00	1.884E+00	2.438E+00	2.674E-01	1.021
		291.72		6.630E-01	1.413E+00	2.117E+00	2.260E-01	0.313
RE-184		57.98		6.871E-01	1.587E+00	2.676E+00	3.117E-01	0.257
		59.32		-5.921E-01	8.362E-01	1.338E+00	1.511E-01	-0.443
		67.20		-7.539E-01	1.291E+00	2.079E+00	2.373E-01	-0.363
		161.27		-5.293E-02	5.012E-01	8.033E-01	8.476E-02	-0.066

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		216.55		4.394E-01	3.816E-01	6.676E-01	7.346E-02	0.658
		252.85	*	-3.355E-02	3.130E-01	5.215E-01	5.735E-02	-0.064
		318.01		3.247E-01	6.370E-01	1.086E+00	1.115E-01	0.299
		792.07		7.201E-01	1.299E+00	2.255E+00	2.003E-01	0.319
		903.28		-2.670E-01	1.488E+00	2.229E+00	2.077E-01	-0.120
		920.93		-1.139E-01	5.882E-01	9.505E-01	8.831E-02	-0.120
OS-185		59.72		-6.653E-01	6.200E-01	9.724E-01	1.096E-01	-0.684
		61.14		-1.931E-01	3.187E-01	5.128E-01	5.825E-02	-0.377
		69.30		-3.986E-01	5.196E-01	7.984E-01	9.112E-02	-0.499
		592.07		-2.721E-01	3.496E+00	5.601E+00	4.765E-01	-0.049
		646.12	*	5.974E-03	5.826E-02	9.437E-02	7.831E-03	0.063
		717.42		-9.504E-01	1.211E+00	1.890E+00	1.610E-01	-0.503
		874.81		4.668E-01	8.090E-01	1.404E+00	1.297E-01	0.332
		880.27		2.485E-01	1.040E+00	1.756E+00	1.626E-01	0.142
RE-188		155.03	*	7.836E-02	2.467E-01	4.031E-01	4.192E-02	0.194
		477.96		8.731E-01	4.210E+00	6.967E+00	6.014E-01	0.125
		633.10		-1.160E-01	3.245E+00	5.196E+00	4.343E-01	-0.022
W-188		63.58		1.016E+02	1.004E+02	1.670E+02	1.907E+01	0.608
		227.08		3.942E+00	1.879E+01	3.187E+01	3.515E+00	0.124
		290.67	*	4.395E+00	1.122E+01	1.672E+01	1.787E+00	0.263
IR-192	+	295.96		8.895E-01	2.641E-01	3.531E-01	3.766E-02	2.519
		308.46		-2.006E-02	1.298E-01	2.138E-01	2.238E-02	-0.094
		316.51	*	-3.052E-02	4.946E-02	7.916E-02	8.162E-03	-0.386
		468.07		-1.192E-01	9.621E-02	1.420E-01	1.312E-02	-0.839
		604.41		-9.854E-01	7.924E-01	9.326E-01	1.205E-01	-1.057
		612.46		2.476E+00	1.141E+00	1.897E+00	1.849E-01	1.305
AU-195		65.12		4.390E-01	3.072E-01	5.287E-01	6.037E-02	0.830
		66.83		-9.207E-02	1.660E-01	2.678E-01	3.057E-02	-0.344
	+	75.70		1.134E+00	3.998E-01	6.767E-01	7.806E-02	1.676
		98.88	*	1.331E-01	3.144E-01	5.225E-01	5.695E-02	0.255
		129.76		4.626E+00	3.883E+00	6.571E+00	6.594E-01	0.704
TL-200		367.94	*	2.431E-04	3.883E+00	Half-Life too short		
		579.30		6.098E-03	3.883E+00	Half-Life too short		
		828.27		-1.086E-03	3.883E+00	Half-Life too short		
		1205.75		-1.534E-03	3.883E+00	Half-Life too short		
TL-201		68.90		-1.090E+01	8.695E+00	1.298E+01	1.481E+00	-0.840
		70.82		5.349E+00	4.957E+00	7.536E+00	8.609E-01	0.710
		80.30		-8.380E+00	8.490E+00	1.150E+01	1.353E+00	-0.729
		135.34		-1.011E+01	3.742E+01	5.989E+01	6.028E+00	-0.169
		167.43	*	-8.839E+00	9.989E+00	1.532E+01	1.636E+00	-0.577
TL-202		68.90		-9.659E-01	7.703E-01	1.150E+00	1.312E-01	-0.840
		70.82		4.726E-01	4.380E-01	6.659E-01	7.606E-02	0.710
		80.30		-7.406E-01	7.504E-01	1.016E+00	1.196E-01	-0.729
		439.56	*	2.652E-02	9.236E-02	1.543E-01	1.322E-02	0.172
HG-203		70.83		2.043E+00	1.903E+00	2.875E+00	4.466E-01	0.711
		72.87		2.215E+00	1.167E+00	1.771E+00	2.693E-01	1.250
		82.60		-1.755E+00	2.000E+00	2.510E+00	4.022E-01	-0.699
		279.20	*	1.095E-02	5.702E-02	9.605E-02	1.057E-02	0.114
BI-207		72.80		5.846E-01	3.328E-01	5.128E-01	5.873E-02	1.140

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	74.97		6.290E-01	2.217E-01	3.455E-01	3.976E-02	1.821
		84.90		5.193E-01	3.034E-01	4.656E-01	5.642E-02	1.115
		569.67		4.226E-02	4.274E-02	7.401E-02	6.339E-03	0.571
		1063.62	*	3.575E-02	7.134E-02	1.223E-01	1.079E-02	0.292
		1770.23		-2.367E+00	8.967E-01	7.479E-01	6.538E-02	-3.165
TL-207		81.07		-5.671E-01	3.704E-01	4.811E-01	5.684E-02	-1.179
		83.78		1.436E-01	2.014E-01	2.999E-01	3.604E-02	0.479
		94.90		3.766E-01	3.586E-01	6.041E-01	6.837E-02	0.623
		122.32		-1.183E+00	2.419E+00	3.840E+00	4.074E-01	-0.308
		144.24		6.979E-01	1.013E+00	1.653E+00	1.829E-01	0.422
		154.21		8.975E-02	5.682E-01	9.226E-01	1.025E-01	0.097
		269.46		4.862E-01	2.719E-01	4.820E-01	5.321E-02	1.009
		323.87	*	-1.037E+00	1.023E+00	1.577E+00	2.918E-01	-0.657
	+	338.28		6.213E+00	2.820E+00	3.369E+00	4.450E-01	1.844
		445.03		1.936E+00	2.990E+00	5.106E+00	6.158E-01	0.379
PO-209		260.50		3.298E-01	1.296E+01	2.171E+01	2.379E+00	0.015
		262.80		-3.623E+01	3.599E+01	5.664E+01	6.200E+00	-0.640
		896.60	*	2.453E+00	1.008E+01	1.701E+01	1.585E+00	0.144
BI-210		46.50	*	5.969E+00	1.494E+01	2.481E+01	3.055E+00	0.241
PB-210		46.50	*	5.969E+00	1.494E+01	2.481E+01	3.055E+00	0.241
PO-210		46.50	*	5.969E+00	1.494E+01	2.481E+01	2.894E+00	0.241
PB-211		404.84	*	-1.414E+00	1.576E+00	1.988E+00	1.245E+00	-0.712
		427.08		-1.143E+00	2.874E+00	4.434E+00	2.755E+00	-0.258
		831.96		3.755E-01	1.613E+00	2.700E+00	1.693E+00	0.139
BI-212	+	727.18	*	9.972E-01	6.665E-01	8.206E-01	8.177E-02	1.215
		785.46		8.620E-01	2.173E+00	3.737E+00	3.309E-01	0.231
		1620.62		1.772E+00	1.956E+00	3.608E+00	3.358E-01	0.491
PO-215		81.07		-5.671E-01	3.704E-01	4.811E-01	5.684E-02	-1.179
		83.78		1.436E-01	2.014E-01	2.999E-01	3.604E-02	0.479
		94.90		3.766E-01	3.586E-01	6.041E-01	6.837E-02	0.623
		122.32		-1.183E+00	2.419E+00	3.840E+00	4.074E-01	-0.308
		144.24		6.979E-01	1.013E+00	1.653E+00	1.829E-01	0.422
		154.21		8.975E-02	5.682E-01	9.226E-01	1.025E-01	0.097
		269.46		4.862E-01	2.719E-01	4.820E-01	5.321E-02	1.009
		323.87	*	-1.037E+00	1.023E+00	1.577E+00	2.918E-01	-0.657
	+	338.28		6.213E+00	2.820E+00	3.369E+00	4.450E-01	1.844
		445.03		1.936E+00	2.990E+00	5.106E+00	6.158E-01	0.379
RN-219		271.23		5.417E-01	3.536E-01	6.207E-01	7.615E-02	0.873
		401.81	*	1.825E-02	5.479E-01	9.027E-01	1.348E-01	0.020
RN-220		549.76	*	1.507E+01	3.526E+01	5.900E+01	5.076E+00	0.255
RA-223		81.07		-5.671E-01	3.704E-01	4.811E-01	5.684E-02	-1.179
		83.78		1.436E-01	2.014E-01	2.999E-01	3.604E-02	0.479
		94.90		3.766E-01	3.586E-01	6.041E-01	6.837E-02	0.623
		122.32		-1.183E+00	2.419E+00	3.840E+00	4.074E-01	-0.308
		144.24		6.979E-01	1.013E+00	1.653E+00	1.829E-01	0.422
		154.21		8.975E-02	5.682E-01	9.226E-01	1.025E-01	0.097
		269.46		4.862E-01	2.719E-01	4.820E-01	5.321E-02	1.009
		323.87	*	-1.037E+00	1.023E+00	1.577E+00	2.918E-01	-0.657
	+	338.28		6.213E+00	2.820E+00	3.369E+00	4.450E-01	1.844

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		1.936E+00	2.990E+00	5.106E+00	6.158E-01	0.379
AC-227		79.80		6.421E-01	2.778E+00	4.050E+00	9.286E-01	0.159
		236.00		1.317E+00	4.439E-01	6.867E-01	9.648E-02	1.918
		256.20	*	-1.262E-01	5.292E-01	8.751E-01	1.469E-01	-0.144
		286.10		-5.229E-02	2.150E+00	3.580E+00	5.254E-01	-0.015
		299.80		5.330E-01	2.334E+00	3.391E+00	6.281E-01	0.157
		304.40		-2.463E+00	2.681E+00	4.167E+00	8.078E-01	-0.591
		334.20		1.238E+00	3.781E+00	5.563E+00	1.115E+00	0.223
TH-227		79.80		6.421E-01	2.779E+00	4.050E+00	9.391E-01	0.159
		94.00		3.669E+00	3.259E+00	5.382E+00	1.240E+00	0.682
		236.00		1.317E+00	4.385E-01	6.867E-01	8.958E-02	1.918
		256.20	*	-1.262E-01	5.293E-01	8.751E-01	1.689E-01	-0.144
		286.10		-5.229E-02	2.150E+00	3.580E+00	3.601E+00	-0.015
		299.80		5.330E-01	2.334E+00	3.391E+00	6.281E-01	0.157
		304.40		-2.463E+00	2.681E+00	4.167E+00	8.078E-01	-0.591
		334.20		1.238E+00	3.781E+00	5.563E+00	1.115E+00	0.223
TH-229		85.43		7.292E-01	3.134E-01	4.838E-01	5.886E-02	1.507
	+	88.47		3.027E-01	1.883E-01	3.050E-01	3.759E-02	0.992
		100.00		1.848E-01	2.550E-01	4.282E-01	4.626E-02	0.431
		193.63	*	-1.078E-01	7.146E-01	1.135E+00	1.235E-01	-0.095
		210.97		7.368E-01	1.196E+00	1.816E+00	1.995E-01	0.406
PA-231		283.67	*	1.789E+00	2.174E+00	3.742E+00	6.173E-01	0.478
		301.29		6.186E-01	9.070E-01	1.356E+00	1.853E-01	0.456
TH-231		81.07		-5.671E-01	3.704E-01	4.811E-01	5.684E-02	-1.179
		83.78		1.436E-01	2.014E-01	2.999E-01	3.604E-02	0.479
		94.90		3.766E-01	3.586E-01	6.041E-01	6.837E-02	0.623
		122.32		-1.183E+00	2.419E+00	3.840E+00	4.074E-01	-0.308
		144.24		6.979E-01	1.013E+00	1.653E+00	1.829E-01	0.422
		154.21		8.975E-02	5.682E-01	9.226E-01	1.025E-01	0.097
		269.46		4.862E-01	2.719E-01	4.820E-01	5.321E-02	1.009
		323.87	*	-1.037E+00	1.023E+00	1.577E+00	2.918E-01	-0.657
	+	338.28		6.213E+00	2.820E+00	3.369E+00	4.450E-01	1.844
		445.03		1.936E+00	2.990E+00	5.106E+00	6.158E-01	0.379
U-231		84.21		9.439E+00	8.692E+00	1.312E+01	1.582E+00	0.720
		92.29		8.228E+00	3.639E+00	5.710E+00	6.663E-01	1.441
		95.87	*	-5.531E+00	1.863E+00	2.539E+00	2.845E-01	-2.178
		108.00		-2.151E-01	2.952E+00	4.700E+00	4.852E-01	-0.046
PA-233	+	75.28		1.835E+01	6.876E+00	1.049E+01	1.798E+00	1.750
	+	86.59		4.340E+00	2.916E+00	4.359E+00	1.230E+00	0.996
		300.12		2.976E-01	6.400E-01	9.436E-01	1.517E-01	0.315
		311.98	*	-1.976E-02	8.840E-02	1.450E-01	1.534E-02	-0.136
		340.50		4.205E+00	1.454E+00	1.881E+00	4.568E-01	2.236
		398.62		5.210E-01	2.830E+00	4.705E+00	1.250E+00	0.111
		415.76		2.477E-01	2.149E+00	3.555E+00	7.645E-01	0.070
PA-234		63.00		-6.043E-01	3.028E+00	4.833E+00	8.317E-01	-0.125
		94.67		4.941E-01	2.659E-01	4.467E-01	6.446E-02	1.106
		98.44		-4.135E-02	1.318E-01	2.093E-01	1.176E-01	-0.198
		99.86		5.057E-01	6.479E-01	1.090E+00	1.179E-01	0.464
		111.00		9.101E-02	2.501E-01	4.134E-01	5.488E-02	0.220

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		131.20		1.851E-01	1.493E-01	2.527E-01	2.536E-02	0.732
		152.70		4.049E-01	4.661E-01	7.708E-01	1.386E-01	0.525
	+	186.00		3.554E+00	2.929E+00	3.267E+00	1.042E+00	1.088
		226.40		3.004E-01	5.851E-01	1.002E+00	1.492E-01	0.300
		227.20		6.879E-02	6.312E-01	1.066E+00	1.176E-01	0.065
		248.90		-3.803E-01	1.218E+00	1.817E+00	4.259E-01	-0.209
	+	293.70		5.595E+00	1.860E+00	2.160E+00	3.973E-01	2.590
		369.80		-3.223E-01	1.071E+00	1.726E+00	3.791E-01	-0.187
		568.70		9.914E-01	1.424E+00	2.418E+00	2.071E-01	0.410
		569.50		3.798E-01	3.774E-01	6.544E-01	5.606E-02	0.580
		574.00		-2.137E+00	2.029E+00	2.969E+00	2.540E-01	-0.720
		699.00		5.335E-01	9.908E-01	1.713E+00	3.253E-01	0.311
		706.10		2.146E-02	1.297E+00	2.173E+00	9.683E-01	0.010
		733.00		1.229E-02	5.193E-01	7.494E-01	1.663E-01	0.016
		742.81		1.470E+00	2.137E+00	3.348E+00	2.251E+00	0.439
		796.30		1.323E+00	1.261E+00	2.182E+00	5.923E-01	0.607
		805.60		6.471E-01	1.320E+00	2.260E+00	6.947E-01	0.286
		819.60		1.535E+00	1.598E+00	2.710E+00	1.033E+00	0.567
		826.30		3.069E-03	1.051E+00	1.743E+00	7.812E-01	0.002
		831.60		1.116E-01	8.321E-01	1.394E+00	4.180E-01	0.080
		876.40		5.970E-01	1.309E+00	2.000E+00	2.057E+00	0.299
		880.51		-7.481E-03	3.830E-01	6.318E-01	5.850E-02	-0.012
		883.24		-1.073E-01	3.753E-01	5.908E-01	3.977E-01	-0.182
		899.00		-8.495E-01	1.221E+00	1.787E+00	7.839E-01	-0.475
		925.00		-1.443E-01	1.489E+00	2.430E+00	2.256E-01	-0.059
		926.50		-9.392E-02	2.316E-01	3.640E-01	9.285E-02	-0.258
		946.00	*	-1.778E-01	4.196E-01	6.603E-01	1.258E-01	-0.269
		949.00		5.823E-01	6.282E-01	1.115E+00	1.030E-01	0.522
		980.50		2.987E-01	9.337E-01	1.584E+00	1.449E-01	0.189
		1394.10		2.912E-01	1.353E+00	2.311E+00	1.507E+00	0.126
PA-234M		766.42		4.823E+00	1.597E+01	2.686E+01	1.363E+01	0.180
		1001.03	*	7.808E-01	6.795E+00	1.140E+01	1.182E+00	0.069
TH-234		63.29	*	9.430E-01	2.535E+00	4.129E+00	8.044E-01	0.228
		92.38		1.472E+00	9.399E-01	1.468E+00	2.893E-01	1.003
U-235		89.95		-5.422E+00	2.761E+00	2.748E+00	8.788E-01	-1.973
		93.35		1.042E+00	1.046E+00	1.705E+00	4.952E-01	0.611
		105.00		5.925E-01	1.480E+00	2.438E+00	7.419E-01	0.243
		143.76	*	2.876E-01	3.111E-01	5.067E-01	9.285E-02	0.567
		163.35		-1.929E-01	6.754E-01	1.055E+00	2.116E-01	-0.183
	+	185.71		1.316E-01	1.010E-01	1.221E-01	1.321E-02	1.078
		205.31		1.852E-01	8.251E-01	1.164E+00	2.357E-01	0.159
NP-236		94.67		3.772E-01	1.990E-01	3.391E-01	3.847E-02	1.112
		98.44		-3.132E-02	9.812E-02	1.582E-01	1.731E-02	-0.198
		111.00		6.884E-02	1.891E-01	3.127E-01	3.195E-02	0.220
		160.31	*	2.321E-02	1.128E-01	1.833E-01	1.930E-02	0.127
U-238		63.29	*	9.430E-01	2.535E+00	4.129E+00	8.044E-01	0.228
		92.38		1.472E+00	9.103E-01	1.468E+00	1.711E-01	1.003
NP-239		99.55		1.434E-01	2.163E-01	3.626E-01	3.930E-02	0.396
		117.00	*	8.244E-02	2.687E-01	4.427E-01	4.469E-02	0.186

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	209.75		1.962E+00	1.485E+00	1.919E+00	2.106E-01	1.023
		228.18		-5.697E-02	3.260E-01	5.442E-01	6.003E-02	-0.105
		277.60		-6.918E-02	2.579E-01	4.178E-01	4.524E-02	-0.166
		334.30		5.421E-01	2.142E+00	3.139E+00	3.122E-01	0.173
AM-241		59.54	*	-3.751E-01	3.284E-01	5.125E-01	6.015E-02	-0.732
CM-243		99.55		1.476E-01	2.226E-01	3.731E-01	4.045E-02	0.396
		103.76	*	3.890E-02	1.350E-01	2.230E-01	2.350E-02	0.174
		117.00		8.482E-02	2.764E-01	4.554E-01	4.598E-02	0.186
	+	209.75		1.934E+00	1.464E+00	1.891E+00	2.076E-01	1.023
		228.18		-5.756E-02	3.295E-01	5.499E-01	6.066E-02	-0.105
		277.60		-6.975E-02	2.600E-01	4.212E-01	4.560E-02	-0.166
AM-246		798.80		-9.041E-02	1.928E-01	3.077E-01	2.743E-02	-0.294
		1036.00		-2.174E-01	3.774E-01	5.766E-01	5.160E-02	-0.377
		1062.04		9.853E-02	3.057E-01	5.160E-01	4.556E-02	0.191
		1078.86	*	-9.170E-02	1.923E-01	2.979E-01	2.605E-02	-0.308
CM-247		278.00		-6.203E-03	1.062E+00	1.743E+00	1.887E-01	-0.004
		287.40		-1.702E-01	1.714E+00	2.844E+00	3.049E-01	-0.060
		402.60	*	-2.927E-02	4.999E-02	7.883E-02	6.667E-03	-0.371
CF-249		252.85		-1.258E-01	1.174E+00	1.956E+00	2.151E-01	-0.064
		333.44		-2.815E-03	2.899E-01	4.166E-01	4.151E-02	-0.007
		387.95	*	4.808E-03	5.310E-02	8.794E-02	7.502E-03	0.055
CF-251		176.60	*	6.468E-02	1.749E-01	2.856E-01	3.071E-02	0.226
		227.00		3.235E-01	5.566E-01	9.567E-01	1.055E-01	0.338
		285.00		-1.026E-01	2.507E+00	4.172E+00	4.486E-01	-0.025

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041818    *
* Acquisition date : 23-FEB-2010 16:54:43 Detector SN#    :                *
* Detector ID        : GAM15                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:01.15       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  8-FEB-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G1202041818          Analyst initials: MXR1          *
* Batch Number       : 952641               Sample Quantity : 1.0986E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.751E+01	4.338E+00	7.469E-01	0.000E+00
CD-109	2.256E+00	1.375E+00	2.064E+00	0.000E+00
SN-126	2.217E-01	1.352E-01	2.070E-01	0.000E+00
TL-208	5.181E-01	1.036E-01	8.386E-02	0.000E+00
BI-211	3.429E+00	6.476E-01	4.634E-01	0.000E+00
PB-212	1.612E+00	2.372E-01	1.267E-01	0.000E+00
PO-212	1.612E+00	2.372E-01	1.267E-01	0.000E+00
BI-214	1.099E+00	2.180E-01	1.463E-01	0.000E+00
PB-214	1.193E+00	2.334E-01	1.615E-01	0.000E+00
PO-214	1.193E+00	2.334E-01	1.615E-01	0.000E+00
PO-216	1.612E+00	2.372E-01	1.267E-01	0.000E+00
PO-218	1.193E+00	2.334E-01	1.615E-01	0.000E+00
RA-224	4.776E+00	2.207E+00	1.441E+00	0.000E+00
RA-226	1.099E+00	2.180E-01	1.463E-01	0.000E+00
AC-228	1.376E+00	3.593E-01	2.972E-01	0.000E+00
RA-228	1.376E+00	3.593E-01	2.972E-01	0.000E+00
TH-228	1.636E+00	2.408E-01	1.286E-01	0.000E+00
TH-230	1.099E+00	2.180E-01	1.463E-01	0.000E+00
TH-232	1.376E+00	3.593E-01	2.972E-01	0.000E+00
U-234	1.099E+00	2.180E-01	1.463E-01	0.000E+00
NP-237	6.510E-01	4.182E-01	5.575E-01	0.000E+00
AM-243	3.504E-01	1.210E-01	1.462E-01	0.000E+00
ANH-511	1.559E-01	9.036E-02	6.024E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.493E-01	4.302E-01	7.351E-01	0.000E+00	NOT IDENT.
NA-22	-4.046E-02	6.221E-02	9.475E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.673E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	7.910E-03	3.374E-02	5.908E-02	0.000E+00	NOT IDENT.

TI-44	0.000E+00	8.576E-02	1.173E-01	0.000E+00	FAIL ABUN
SC-46	-1.106E-02	4.939E-02	8.124E-02	0.000E+00	FAIL ABUN
V-48	-5.385E-02	8.943E-02	1.397E-01	0.000E+00	NOT IDENT.
CR-51	2.802E-01	5.332E-01	9.315E-01	0.000E+00	NOT IDENT.
MN-52	2.290E-01	2.910E-01	5.440E-01	0.000E+00	NOT IDENT.
MN-54	3.742E-02	4.841E-02	8.671E-02	0.000E+00	NOT IDENT.
CO-56	-2.424E-02	5.255E-02	8.497E-02	0.000E+00	NOT IDENT.
CO-57	-2.482E-02	3.448E-02	5.591E-02	0.000E+00	NOT IDENT.
CO-58	-2.562E-02	4.539E-02	7.234E-02	0.000E+00	NOT IDENT.
FE-59	6.931E-02	1.321E-01	2.291E-01	0.000E+00	NOT IDENT.
CO-60	-2.517E-02	5.185E-02	7.912E-02	0.000E+00	NOT IDENT.
ZN-65	9.214E-02	1.477E-01	2.259E-01	0.000E+00	NOT IDENT.
GE-68	-3.403E-01	1.642E+00	2.668E+00	0.000E+00	NOT IDENT.
AS-73	1.437E-01	2.232E+00	3.859E+00	0.000E+00	NOT IDENT.
AS-74	-9.929E-02	1.293E-01	1.994E-01	0.000E+00	NOT IDENT.
SE-75	-4.652E-02	5.871E-02	9.645E-02	0.000E+00	NOT IDENT.
BR-77	-3.340E+00	1.460E+01	2.310E+01	0.000E+00	FAIL ABUN
SR-82	-4.393E-01	4.730E-01	7.324E-01	0.000E+00	NOT IDENT.
RB-83	-3.145E-02	9.848E-02	1.493E-01	0.000E+00	NOT IDENT.
RB-84	8.596E-03	9.303E-02	1.579E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	1.099E+01	1.912E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.642E-02	9.810E-02	0.000E+00	NOT IDENT.
RB-86	-3.487E-01	1.086E+00	1.745E+00	0.000E+00	NOT IDENT.
Y-88	5.058E-02	4.296E-02	8.654E-02	0.000E+00	NOT IDENT.
ZR-88	6.148E-03	4.185E-02	7.118E-02	0.000E+00	NOT IDENT.
Y-91	8.432E+00	2.781E+01	4.700E+01	0.000E+00	NOT IDENT.
NB-94	-3.506E-02	4.278E-02	6.814E-02	0.000E+00	NOT IDENT.
NB-95	2.680E-02	5.814E-02	1.019E-01	0.000E+00	NOT IDENT.
NB-95M	3.233E-01	2.039E-01	3.277E-01	0.000E+00	NOT IDENT.
ZR-95	4.943E-02	9.078E-02	1.608E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.263E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.055E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	8.505E+00	1.542E+01	2.730E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.871E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	5.082E-03	4.675E-02	7.579E-02	0.000E+00	NOT IDENT.
RH-102	2.587E-02	3.879E-02	6.770E-02	0.000E+00	NOT IDENT.
RU-103	1.306E-02	5.074E-02	8.611E-02	0.000E+00	FAIL ABUN
RH-106	1.607E-01	4.359E-01	7.365E-01	0.000E+00	FAIL ABUN
RU-106	1.607E-01	4.356E-01	7.365E-01	0.000E+00	FAIL ABUN
AG-108M	-6.742E-03	4.166E-02	6.903E-02	0.000E+00	NOT IDENT.
AG-110M	2.365E-03	4.177E-02	7.189E-02	0.000E+00	NOT IDENT.
IN-111	2.106E+00	1.615E+00	2.611E+00	0.000E+00	NOT IDENT.
IN-113M	3.093E-02	5.890E-02	1.025E-01	0.000E+00	NOT IDENT.
SN-113	3.093E-02	5.890E-02	1.025E-01	0.000E+00	NOT IDENT.
IN-114M	1.012E-01	2.847E-01	4.185E-01	0.000E+00	NOT IDENT.
CD-115	1.804E+00	1.496E+01	2.504E+01	0.000E+00	NOT IDENT.
SN-117M	9.325E-03	7.738E-02	1.292E-01	0.000E+00	NOT IDENT.
SB-122	2.815E-02	3.060E+00	4.935E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.928E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.962E-02	3.948E-02	6.693E-02	0.000E+00	NOT IDENT.
I-124	-6.153E-01	1.116E+00	1.486E+00	0.000E+00	NOT IDENT.
SB-124	-2.843E-02	1.092E-01	1.744E-01	0.000E+00	FAIL ABUN
SB-125	-6.139E-02	1.213E-01	1.961E-01	0.000E+00	NOT IDENT.
TE-125M	-1.268E+01	1.324E+01	2.085E+01	0.000E+00	NOT IDENT.
I-126	8.590E-02	2.069E-01	3.662E-01	0.000E+00	NOT IDENT.
SB-126	9.916E-02	2.170E-01	3.349E-01	0.000E+00	FAIL ABUN
SB-127	-9.228E-01	1.807E+00	2.961E+00	0.000E+00	NOT IDENT.
XE-127	-3.197E-02	7.160E-02	1.055E-01	0.000E+00	NOT IDENT.
I-131	-2.244E-02	1.472E-01	2.465E-01	0.000E+00	NOT IDENT.
TE-132	-1.803E-01	9.954E-01	1.708E+00	0.000E+00	NOT IDENT.
BA-133	1.411E-02	6.736E-02	1.007E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.741E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.341E-02	6.121E-02	1.115E-01	0.000E+00	NOT IDENT.
CS-135	1.951E-01	2.208E-01	3.922E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.849E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.387E-02	1.511E-01	2.640E-01	0.000E+00	FAIL ABUN
BA-137M	-2.485E-02	4.143E-02	6.730E-02	0.000E+00	NOT IDENT.
CS-137	-2.627E-02	4.380E-02	7.115E-02	0.000E+00	NOT IDENT.
CE-139	1.559E-02	3.962E-02	6.685E-02	0.000E+00	NOT IDENT.
BA-140	2.441E-01	3.562E-01	6.062E-01	0.000E+00	NOT IDENT.
LA-140	-1.202E-01	1.104E-01	1.502E-01	0.000E+00	NOT IDENT.
CE-141	4.351E-02	8.920E-02	1.515E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.115E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.076E-01	2.962E-01	4.782E-01	0.000E+00	NOT IDENT.
PM-144	6.386E-02	4.870E-02	8.984E-02	0.000E+00	NOT IDENT.
PR-144	4.328E+00	3.300E+00	6.088E+00	0.000E+00	NOT IDENT.
PM-146	4.765E-02	5.803E-02	1.022E-01	0.000E+00	NOT IDENT.
ND-147	1.869E-01	7.547E-01	1.274E+00	0.000E+00	NOT IDENT.

PM-149	-1.285E+01	1.298E+02	2.211E+02	0.000E+00	NOT IDENT.
EU-152	-1.683E-01	1.772E-01	2.024E-01	0.000E+00	NOT IDENT.
GD-153	-2.937E-01	1.203E-01	1.764E-01	0.000E+00	NOT IDENT.
EU-154	-8.255E-02	1.709E-01	2.653E-01	0.000E+00	NOT IDENT.
EU-155	1.286E-03	1.490E-01	2.515E-01	0.000E+00	FAIL ABUN
TB-160	1.194E-01	1.867E-01	3.315E-01	0.000E+00	FAIL ABUN
HO-166M	5.330E-02	7.826E-02	1.401E-01	0.000E+00	NOT IDENT.
TM-171	-2.390E+01	4.933E+01	8.284E+01	0.000E+00	NOT IDENT.
LU-176	-8.290E-03	3.262E-02	5.486E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.071E+00	2.774E+00	0.000E+00	FAIL ABUN
LU-177M	-1.684E-01	2.384E-01	3.815E-01	0.000E+00	NOT IDENT.
HF-181	1.906E-02	5.253E-02	9.002E-02	0.000E+00	NOT IDENT.
W-181	9.058E-01	6.464E-01	1.153E+00	0.000E+00	NOT IDENT.
TA-182	-1.506E-02	2.972E-01	4.871E-01	0.000E+00	FAIL ABUN
RE-183	-6.115E-02	1.556E-01	2.498E-01	0.000E+00	FAIL ABUN
RE-184	-3.355E-02	3.067E-01	5.252E-01	0.000E+00	NOT IDENT.
OS-185	5.974E-03	5.710E-02	9.440E-02	0.000E+00	NOT IDENT.
RE-188	7.836E-02	2.418E-01	4.074E-01	0.000E+00	NOT IDENT.
W-188	4.395E+00	1.099E+01	1.682E+01	0.000E+00	NOT IDENT.
IR-192	-3.052E-02	4.847E-02	7.959E-02	0.000E+00	FAIL ABUN
AU-195	1.331E-01	3.081E-01	5.297E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.991E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-8.839E+00	9.789E+00	1.547E+01	0.000E+00	NOT IDENT.
TL-202	2.652E-02	9.051E-02	1.547E-01	0.000E+00	NOT IDENT.
HG-203	1.095E-02	5.588E-02	9.666E-02	0.000E+00	NOT IDENT.
BI-207	3.575E-02	6.992E-02	1.219E-01	0.000E+00	FAIL ABUN
TL-207	-1.037E+00	1.002E+00	1.585E+00	0.000E+00	FAIL ABUN
PO-209	2.453E+00	9.876E+00	1.697E+01	0.000E+00	NOT IDENT.
BI-210	5.969E+00	1.465E+01	2.529E+01	0.000E+00	NOT IDENT.
PB-210	5.969E+00	1.465E+01	2.529E+01	0.000E+00	NOT IDENT.
PO-210	5.969E+00	1.464E+01	2.529E+01	0.000E+00	NOT IDENT.
PB-211	-1.414E+00	1.544E+00	1.995E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.532E-01	8.201E-01	0.000E+00	FAIL ABUN
PO-215	-1.037E+00	1.002E+00	1.585E+00	0.000E+00	FAIL ABUN
RN-219	1.825E-02	5.370E-01	9.061E-01	0.000E+00	NOT IDENT.
RN-220	1.507E+01	3.455E+01	5.909E+01	0.000E+00	NOT IDENT.
RA-223	-1.037E+00	1.002E+00	1.585E+00	0.000E+00	FAIL ABUN
AC-227	-1.262E-01	5.186E-01	8.813E-01	0.000E+00	NOT IDENT.
TH-227	-1.262E-01	5.187E-01	8.813E-01	0.000E+00	NOT IDENT.
TH-229	-1.078E-01	7.003E-01	1.145E+00	0.000E+00	FAIL ABUN
PA-231	1.789E+00	2.130E+00	3.765E+00	0.000E+00	NOT IDENT.
TH-231	-1.037E+00	1.002E+00	1.585E+00	0.000E+00	FAIL ABUN
U-231	-5.531E+00	1.826E+00	2.575E+00	0.000E+00	NOT IDENT.
PA-233	-1.976E-02	8.663E-02	1.458E-01	0.000E+00	FAIL ABUN
PA-234	-1.778E-01	4.112E-01	6.587E-01	0.000E+00	FAIL ABUN
PA-234M	7.808E-01	6.659E+00	1.137E+01	0.000E+00	NOT IDENT.
TH-234	9.430E-01	2.484E+00	4.199E+00	0.000E+00	NOT IDENT.
U-235	2.876E-01	3.049E-01	5.124E-01	0.000E+00	FAIL ABUN
NP-236	2.321E-02	1.105E-01	1.852E-01	0.000E+00	NOT IDENT.
U-238	9.430E-01	2.484E+00	4.199E+00	0.000E+00	NOT IDENT.
NP-239	8.244E-02	2.633E-01	4.482E-01	0.000E+00	FAIL ABUN
AM-241	-3.751E-01	3.218E-01	5.214E-01	0.000E+00	NOT IDENT.
CM-243	3.890E-02	1.323E-01	2.260E-01	0.000E+00	FAIL ABUN
AM-246	-9.170E-02	1.885E-01	2.969E-01	0.000E+00	NOT IDENT.
CM-247	-2.927E-02	4.899E-02	7.912E-02	0.000E+00	NOT IDENT.
CF-249	4.808E-03	5.204E-02	8.829E-02	0.000E+00	NOT IDENT.
CF-251	6.468E-02	1.714E-01	2.883E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 18:55:15.80

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041818.CNF;1
Sample date       : 8-FEB-2010 12:00:00. Acquisition date : 23-FEB-2010 16:54:43
Sample ID         : G1202041818          Sample quantity  : 1.09860E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.15  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1132	10.67*	9.663E-01	3.751E+01	3.751E+01	11.80
CD-109	88.03	107	3.72*	4.445E+00	2.205E+00	2.256E+00	62.22
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	107	8.90	4.445E+00	9.216E-01	9.216E-01	74.21
	87.57	107	37.00*	4.445E+00	2.217E-01	2.217E-01	62.22
TL-208	277.35	------	6.80	3.705E+00	------ Line Not Found		------
	510.84	110	21.60	2.418E+00	7.219E-01	7.219E-01	59.72
	583.14	280	84.20*	2.191E+00	5.181E-01	5.181E-01	20.40
	860.37	60	12.46	1.575E+00	1.045E+00	1.045E+00	63.74
BI-211	72.87	------	1.27	3.001E+00	------ Line Not Found		------
	351.07	408	12.94*	3.140E+00	3.429E+00	3.429E+00	19.27
PB-212	74.81	219	10.70	3.243E+00	2.161E+00	2.161E+00	36.46
	77.11	331	18.00	3.504E+00	1.791E+00	1.791E+00	26.47
	87.30	107	8.00	4.445E+00	1.025E+00	1.025E+00	63.01
	238.63	866	44.60*	4.114E+00	1.612E+00	1.612E+00	15.02
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
PO-212	74.81	219	10.70	3.243E+00	2.161E+00	2.161E+00	36.46
	77.11	331	18.00	3.504E+00	1.791E+00	1.791E+00	26.47
	87.30	107	8.00	4.445E+00	1.025E+00	1.025E+00	63.01
	115.19	------	0.60	5.586E+00	------ Line Not Found		------
	238.63	866	44.60*	4.114E+00	1.612E+00	1.612E+00	15.02
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
BI-214	609.31	315	46.30*	2.117E+00	1.099E+00	1.099E+00	20.24
	1120.29	70	15.10	1.227E+00	1.294E+00	1.294E+00	58.39
	1764.49	38	15.80	8.555E-01	9.493E-01	9.494E-01	51.45
PB-214	74.81	219	6.21	3.243E+00	3.724E+00	3.724E+00	36.01
	77.11	331	10.50	3.504E+00	3.071E+00	3.071E+00	27.55
	87.30	107	4.67	4.445E+00	1.756E+00	1.756E+00	62.69
	241.98	225	7.49	4.080E+00	2.519E+00	2.519E+00	47.48
	295.21	232	19.20	3.547E+00	1.166E+00	1.166E+00	30.32
	351.92	408	37.20*	3.140E+00	1.193E+00	1.193E+00	19.96
PO-214	74.81	219	6.21	3.243E+00	3.724E+00	3.724E+00	36.01

Sample ID : G1202041818 Acquisition date : 23-FEB-2010 16:54:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	331	10.50	3.504E+00	3.071E+00	3.071E+00	27.55
	87.30	107	4.67	4.445E+00	1.756E+00	1.756E+00	62.69
	241.98	225	7.49	4.080E+00	2.519E+00	2.519E+00	47.48
	295.21	232	19.20	3.547E+00	1.166E+00	1.166E+00	30.32
	351.92	408	37.20*	3.140E+00	1.193E+00	1.193E+00	19.96
PO-216	74.81	219	10.70	3.243E+00	2.161E+00	2.161E+00	36.46
	77.11	331	18.00	3.504E+00	1.791E+00	1.791E+00	26.47
	87.30	107	8.00	4.445E+00	1.025E+00	1.025E+00	63.01
	238.63	866	44.60*	4.114E+00	1.612E+00	1.612E+00	15.02
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
PO-218	74.81	219	6.21	3.243E+00	3.724E+00	3.724E+00	36.01
	77.11	331	10.50	3.504E+00	3.071E+00	3.071E+00	27.55
	87.30	107	4.67	4.445E+00	1.756E+00	1.756E+00	62.69
	241.98	225	7.49	4.080E+00	2.519E+00	2.519E+00	47.48
	295.21	232	19.20	3.547E+00	1.166E+00	1.166E+00	30.32
	351.92	408	37.20*	3.140E+00	1.193E+00	1.193E+00	19.96
RA-224	240.98	225	3.95*	4.080E+00	4.776E+00	4.776E+00	47.15
RA-226	609.31	315	46.30*	2.117E+00	1.099E+00	1.099E+00	20.24
	1120.29	70	15.10	1.227E+00	1.294E+00	1.294E+00	58.39
	1764.49	38	15.80	8.555E-01	9.493E-01	9.494E-01	51.45
AC-228	338.32	160	11.40	3.225E+00	1.488E+00	1.488E+00	60.10
	911.07	167	27.70*	1.494E+00	1.376E+00	1.376E+00	26.64
	969.11	59	16.60	1.409E+00	8.614E-01	8.614E-01	69.81
RA-228	338.32	160	11.40	3.225E+00	1.488E+00	1.488E+00	60.10
	911.07	167	27.70*	1.494E+00	1.376E+00	1.376E+00	26.64
	969.11	59	16.60	1.409E+00	8.614E-01	8.614E-01	69.81
TH-228	74.81	219	10.70	3.243E+00	2.161E+00	2.194E+00	35.26
	77.11	331	18.00	3.504E+00	1.791E+00	1.819E+00	26.47
	87.30	107	8.00	4.445E+00	1.025E+00	1.041E+00	62.22
	238.63	866	44.60*	4.114E+00	1.612E+00	1.636E+00	15.02
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
TH-230	609.31	315	46.30*	2.117E+00	1.099E+00	1.099E+00	20.24
	1120.29	70	15.10	1.227E+00	1.294E+00	1.294E+00	58.39
	1764.49	38	15.80	8.555E-01	9.493E-01	9.493E-01	51.45
TH-232	338.32	160	11.40	3.225E+00	1.488E+00	1.488E+00	44.54
	911.07	167	27.70*	1.494E+00	1.376E+00	1.376E+00	26.64
	969.11	59	16.60	1.409E+00	8.614E-01	8.614E-01	69.81
U-234	609.31	315	46.30*	2.117E+00	1.099E+00	1.099E+00	20.24
	1120.29	70	15.10	1.227E+00	1.294E+00	1.294E+00	58.39
	1764.49	38	15.80	8.555E-01	9.493E-01	9.493E-01	51.45
NP-237	86.50	107	12.60*	4.445E+00	6.510E-01	6.510E-01	65.55
	95.87	------	2.60	5.004E+00	------ Line Not Found		------
AM-243	74.67	219	66.00*	3.243E+00	3.504E-01	3.504E-01	35.24
	86.72	107	0.34	4.445E+00	2.441E+01	2.441E+01	62.22
	117.66	------	0.55	5.611E+00	------ Line Not Found		------
	142.18	------	0.13	5.525E+00	------ Line Not Found		------
ANH-511	511.00	110	100.00*	2.418E+00	1.559E-01	1.559E-01	59.13

Flag: "*" = Keyline

Sample ID : G1202041818 Acquisition date : 23-FEB-2010 16:54:43

Total number of lines in spectrum 20
Number of unidentified lines 0
Number of lines tentatively identified by NID 20 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.751E+01	3.751E+01	0.443E+01	11.80	
CD-109	464.00D	1.02	2.205E+00	2.256E+00	1.403E+00	62.22	
SN-126	1.00E+05Y	1.00	2.217E-01	2.217E-01	1.379E-01	62.22	
TL-208	1.41E+10Y	1.00	5.181E-01	5.181E-01	1.057E-01	20.40	
BI-211	7.04E+08Y	1.00	3.429E+00	3.429E+00	0.661E+00	19.27	
PB-212	1.41E+10Y	1.00	1.612E+00	1.612E+00	0.242E+00	15.02	
PO-212	1.41E+10Y	1.00	1.612E+00	1.612E+00	0.242E+00	15.02	
BI-214	1600.00Y	1.00	1.099E+00	1.099E+00	0.222E+00	20.24	
PB-214	1600.00Y	1.00	1.193E+00	1.193E+00	0.238E+00	19.96	
PO-214	1600.00Y	1.00	1.193E+00	1.193E+00	0.238E+00	19.96	
PO-216	1.41E+10Y	1.00	1.612E+00	1.612E+00	0.242E+00	15.02	
PO-218	1600.00Y	1.00	1.193E+00	1.193E+00	0.238E+00	19.96	
RA-224	1.41E+10Y	1.00	4.776E+00	4.776E+00	2.252E+00	47.15	
RA-226	1600.00Y	1.00	1.099E+00	1.099E+00	0.222E+00	20.24	
AC-228	1.41E+10Y	1.00	1.376E+00	1.376E+00	0.367E+00	26.64	
RA-228	1.41E+10Y	1.00	1.376E+00	1.376E+00	0.367E+00	26.64	
TH-228	1.91Y	1.02	1.612E+00	1.636E+00	0.246E+00	15.02	
TH-230	4.47E+09Y	1.00	1.099E+00	1.099E+00	0.222E+00	20.24	
TH-232	1.41E+10Y	1.00	1.376E+00	1.376E+00	0.367E+00	26.64	
U-234	4.47E+09Y	1.00	1.099E+00	1.099E+00	0.222E+00	20.24	
NP-237	2.14E+06Y	1.00	6.510E-01	6.510E-01	4.267E-01	65.55	
AM-243	7380.00Y	1.00	3.504E-01	3.504E-01	1.235E-01	35.24	
ANH-511	1.00E+09Y	1.00	1.559E-01	1.559E-01	0.922E-01	59.13	
	Total Activity :		6.837E+01	6.844E+01			

Grand Total Activity : 6.837E+01 6.844E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202041818 Acquisition date : 23-FEB-2010 16:54:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	186.03	101	309	1.25	370.97	364	12	1.40E-02	76.0	4.86E+00	T
0	209.47	84	255	1.93	417.85	412	10	1.16E-02	74.9	4.50E+00	T
0	728.02	63	75	2.20	1454.97	1446	15	8.75E-03	66.1	1.83E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 18:55:20.18

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041818.CNF;1  *
* Acquisition date  : 23-FEB-2010 16:54:43  Detector SN#     :             *
* Detector ID       : GAM15                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.15          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 8-FEB-2010 12:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G1202041818           Analyst initials: MXR1         *
* Batch Number      : 952641                Sample Quantity : 1.09860E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.751E+01	4.427E+00	7.511E-01	7.381E-02	49.939
CD-109	2.256E+00	1.403E+00	2.034E+00	2.525E-01	1.109
SN-126	2.217E-01	1.379E-01	2.040E-01	2.524E-02	1.087
TL-208	5.181E-01	1.057E-01	8.377E-02	7.672E-03	6.184
BI-211	3.429E+00	6.608E-01	4.613E-01	4.593E-02	7.435
PB-212	1.612E+00	2.420E-01	1.257E-01	1.497E-02	12.819
PO-212	1.612E+00	2.420E-01	1.257E-01	1.497E-02	12.819
BI-214	1.099E+00	2.224E-01	1.462E-01	1.449E-02	7.517
PB-214	1.193E+00	2.382E-01	1.608E-01	1.804E-02	7.421
PO-214	1.193E+00	2.382E-01	1.608E-01	1.804E-02	7.421
PO-216	1.612E+00	2.420E-01	1.257E-01	1.497E-02	12.819
PO-218	1.193E+00	2.382E-01	1.608E-01	1.804E-02	7.421
RA-224	4.776E+00	2.252E+00	1.430E+00	1.578E-01	3.339
RA-226	1.099E+00	2.224E-01	1.462E-01	1.449E-02	7.517
AC-228	1.376E+00	3.667E-01	2.978E-01	3.508E-02	4.622
RA-228	1.376E+00	3.667E-01	2.978E-01	3.508E-02	4.622
TH-228	1.636E+00	2.457E-01	1.276E-01	1.520E-02	12.819
TH-230	1.099E+00	2.224E-01	1.462E-01	1.449E-02	7.517

Sample ID : G1202041818 Acquisition date : 23-FEB-2010 16:54:43

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.376E+00	3.667E-01	2.978E-01	3.508E-02	4.622
U-234	1.099E+00	2.224E-01	1.462E-01	1.449E-02	7.517
NP-237	6.510E-01	4.267E-01	5.494E-01	1.319E-01	1.185
AM-243	3.504E-01	1.235E-01	1.439E-01	1.655E-02	2.435
ANH-511	1.559E-01	9.221E-02	6.012E-02	5.195E-03	2.593

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.493E-01		4.390E-01	7.333E-01	6.817E-02	0.204
NA-22	-4.046E-02		6.348E-02	9.519E-02	8.647E-03	-0.425
NA-24	2.271E-01		4.935E-01	Half-Life too short		
AL-26	7.910E-03		3.443E-02	5.951E-02	5.091E-03	0.133
TI-44	3.306E-01	+	8.751E-02	1.155E-01	1.346E-02	2.863
SC-46	-1.106E-02		5.040E-02	8.141E-02	7.565E-03	-0.136
V-48	-5.385E-02		9.126E-02	1.400E-01	1.280E-02	-0.385
CR-51	2.802E-01		5.441E-01	9.265E-01	9.838E-02	0.302
MN-52	2.290E-01		2.969E-01	5.470E-01	5.265E-02	0.419
MN-54	3.742E-02		4.940E-02	8.684E-02	7.881E-03	0.431
CO-56	-2.424E-02		5.362E-02	8.511E-02	7.766E-03	-0.285
CO-57	-2.482E-02		3.519E-02	5.523E-02	5.564E-03	-0.449
CO-58	-2.562E-02		4.631E-02	7.244E-02	6.512E-03	-0.354
FE-59	6.931E-02		1.348E-01	2.299E-01	2.145E-02	0.301
CO-60	-2.517E-02		5.291E-02	7.951E-02	7.644E-03	-0.317
ZN-65	9.214E-02		1.507E-01	2.267E-01	1.937E-02	0.406
GE-68	-3.403E-01		1.675E+00	2.677E+00	2.343E-01	-0.127
AS-73	1.437E-01		2.277E+00	3.790E+00	4.920E-01	0.038
AS-74	-9.929E-02		1.319E-01	1.992E-01	1.693E-02	-0.498
SE-75	-4.652E-02		5.991E-02	9.580E-02	1.050E-02	-0.486
BR-77	-3.340E+00		1.489E+01	2.306E+01	1.991E+00	-0.145
SR-82	-4.393E-01		4.826E-01	7.331E-01	6.460E-02	-0.599
RB-83	-3.145E-02		1.005E-01	1.491E-01	1.287E-02	-0.211
RB-84	8.596E-03		9.493E-02	1.582E-01	1.465E-02	0.054
KR-85	2.845E+01		1.122E+01	1.908E+01	1.648E+00	1.491
SR-85	1.460E-01		5.757E-02	9.791E-02	8.459E-03	1.491
RB-86	-3.487E-01		1.108E+00	1.751E+00	1.533E-01	-0.199
Y-88	5.058E-02		4.384E-02	8.717E-02	7.342E-03	0.580
ZR-88	6.148E-03		4.270E-02	7.090E-02	5.968E-03	0.087
Y-91	8.432E+00		2.838E+01	4.720E+01	3.980E+00	0.179
NB-94	-3.506E-02		4.365E-02	6.816E-02	5.755E-03	-0.514
NB-95	2.680E-02		5.933E-02	1.020E-01	8.934E-03	0.263
NB-95M	3.233E-01		2.080E-01	3.252E-01	3.913E-02	0.994
ZR-95	4.943E-02		9.263E-02	1.610E-01	1.542E-02	0.307
NB-97	2.729E-04		6.446E-02	Half-Life too short		
ZR-97	5.113E+00		1.559E+00	Half-Life too short		
MO-99	8.505E+00		1.574E+01	2.732E+01	4.150E+00	0.311
TC-99M	-5.425E+10		3.505E+10	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-101	5.082E-03		4.771E-02	7.512E-02	8.196E-03	0.068
RH-102	2.587E-02		3.959E-02	6.752E-02	5.826E-03	0.383
RU-103	1.306E-02		5.178E-02	8.592E-02	1.218E-02	0.152
RH-106	1.607E-01		4.448E-01	7.361E-01	9.731E-02	0.218
RU-106	1.607E-01		4.445E-01	7.361E-01	6.186E-02	0.218
AG-108M	-6.742E-03		4.251E-02	6.881E-02	6.125E-03	-0.098
AG-110M	2.365E-03		4.263E-02	7.188E-02	6.116E-03	0.033
IN-111	2.106E+00		1.648E+00	2.592E+00	2.856E-01	0.813
IN-113M	3.093E-02		6.010E-02	1.021E-01	8.867E-03	0.303
SN-113	3.093E-02		6.010E-02	1.021E-01	8.867E-03	0.303
IN-114M	1.012E-01		2.905E-01	4.147E-01	4.503E-02	0.244
CD-115	1.804E+00		1.527E+01	2.500E+01	2.158E+00	0.072
SN-117M	9.325E-03		7.896E-02	1.279E-01	1.341E-02	0.073
SB-122	2.815E-02		3.123E+00	4.929E+00	4.228E-01	0.006
I-123	4.437E+00		4.555E+00	Half-Life too short		
TE-123M	1.962E-02		4.029E-02	6.624E-02	6.980E-03	0.296
I-124	-6.153E-01		1.139E+00	1.485E+00	1.258E-01	-0.414
SB-124	-2.843E-02		1.114E-01	1.756E-01	1.651E-02	-0.162
SB-125	-6.139E-02		1.238E-01	1.955E-01	1.702E-02	-0.314
TE-125M	-1.268E+01		1.351E+01	2.058E+01	2.417E+00	-0.616
I-126	8.590E-02		2.112E-01	3.661E-01	3.019E-02	0.235
SB-126	9.916E-02		2.214E-01	3.350E-01	2.860E-02	0.296
SB-127	-9.228E-01		1.844E+00	2.961E+00	3.318E-01	-0.312
XE-127	-3.197E-02		7.306E-02	1.046E-01	1.145E-02	-0.306
I-131	-2.244E-02		1.502E-01	2.454E-01	2.370E-02	-0.091
TE-132	-1.803E-01		1.016E+00	1.695E+00	2.910E-01	-0.106
BA-133	1.411E-02		6.873E-02	1.002E-01	1.378E-02	0.141
I-133	1.575E-03		4.460E-03	Half-Life too short		
CS-134	6.341E-02		6.246E-02	1.117E-01	1.001E-02	0.568
CS-135	1.951E-01		2.253E-01	3.896E-01	4.675E-02	0.501
I-135	3.729E+09		5.025E+09	Half-Life too short		
CS-136	8.387E-02		1.542E-01	2.649E-01	2.450E-02	0.317
BA-137M	-2.485E-02		4.228E-02	6.729E-02	5.533E-03	-0.369
CS-137	-2.627E-02		4.469E-02	7.114E-02	5.861E-03	-0.369
CE-139	1.559E-02		4.043E-02	6.618E-02	7.064E-03	0.236
BA-140	2.441E-01		3.635E-01	6.052E-01	2.006E-01	0.403
LA-140	-1.202E-01		1.126E-01	1.511E-01	1.417E-02	-0.795
CE-141	4.351E-02		9.102E-02	1.498E-01	1.549E-02	0.290
CE-143	8.708E-04		1.590E-04	Half-Life too short		
CE-144	-2.076E-01		3.023E-01	4.726E-01	7.753E-02	-0.439
PM-144	6.386E-02		4.969E-02	8.986E-02	7.560E-03	0.711
PR-144	4.328E+00		3.367E+00	6.090E+00	5.121E-01	0.711
PM-146	4.765E-02		5.922E-02	1.019E-01	1.091E-02	0.468
ND-147	1.869E-01		7.701E-01	1.272E+00	1.902E-01	0.147
PM-149	-1.285E+01		1.324E+02	2.197E+02	3.694E+01	-0.058
EU-152	-1.683E-01		1.808E-01	2.014E-01	2.050E-02	-0.835
GD-153	-2.937E-01		1.227E-01	1.740E-01	1.921E-02	-1.688
EU-154	-8.255E-02		1.744E-01	2.666E-01	3.108E-02	-0.310

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	1.286E-03		1.520E-01	2.482E-01	2.615E-02	0.005
TB-160	1.194E-01		1.905E-01	3.321E-01	3.074E-02	0.360
HO-166M	5.330E-02		7.986E-02	1.402E-01	1.190E-02	0.380
TM-171	-2.390E+01		5.033E+01	8.149E+01	9.301E+00	-0.293
LU-176	-8.290E-03		3.329E-02	5.455E-02	5.704E-03	-0.152
LU-177	2.792E+00	+	2.113E+00	2.750E+00	3.017E-01	1.015
LU-177M	-1.684E-01		2.433E-01	3.801E-01	3.230E-02	-0.443
HF-181	1.906E-02		5.360E-02	8.980E-02	7.754E-03	0.212
W-181	9.058E-01		6.596E-01	1.134E+00	1.295E-01	0.799
TA-182	-1.506E-02		3.032E-01	4.892E-01	4.199E-02	-0.031
RE-183	-6.115E-02		1.588E-01	2.472E-01	2.616E-02	-0.247
RE-184	-3.355E-02		3.130E-01	5.215E-01	5.735E-02	-0.064
OS-185	5.974E-03		5.826E-02	9.437E-02	7.831E-03	0.063
RE-188	7.836E-02		2.467E-01	4.031E-01	4.192E-02	0.194
W-188	4.395E+00		1.122E+01	1.672E+01	1.787E+00	0.263
IR-192	-3.052E-02		4.946E-02	7.916E-02	8.162E-03	-0.386
AU-195	1.331E-01		3.144E-01	5.225E-01	5.695E-02	0.255
TL-200	2.431E-04		3.057E-04	Half-Life too short		
TL-201	-8.839E+00		9.989E+00	1.532E+01	1.636E+00	-0.577
TL-202	2.652E-02		9.236E-02	1.543E-01	1.322E-02	0.172
HG-203	1.095E-02		5.702E-02	9.605E-02	1.057E-02	0.114
BI-207	3.575E-02		7.134E-02	1.223E-01	1.079E-02	0.292
TL-207	-1.037E+00		1.023E+00	1.577E+00	2.918E-01	-0.657
PO-209	2.453E+00		1.008E+01	1.701E+01	1.585E+00	0.144
BI-210	5.969E+00		1.494E+01	2.481E+01	3.055E+00	0.241
PB-210	5.969E+00		1.494E+01	2.481E+01	3.055E+00	0.241
PO-210	5.969E+00		1.494E+01	2.481E+01	2.894E+00	0.241
PB-211	-1.414E+00		1.576E+00	1.988E+00	1.245E+00	-0.712
BI-212	9.972E-01	+	6.665E-01	8.206E-01	8.177E-02	1.215
PO-215	-1.037E+00		1.023E+00	1.577E+00	2.918E-01	-0.657
RN-219	1.825E-02		5.479E-01	9.027E-01	1.348E-01	0.020
RN-220	1.507E+01		3.526E+01	5.900E+01	5.076E+00	0.255
RA-223	-1.037E+00		1.023E+00	1.577E+00	2.918E-01	-0.657
AC-227	-1.262E-01		5.292E-01	8.751E-01	1.469E-01	-0.144
TH-227	-1.262E-01		5.293E-01	8.751E-01	1.689E-01	-0.144
TH-229	-1.078E-01		7.146E-01	1.135E+00	1.235E-01	-0.095
PA-231	1.789E+00		2.174E+00	3.742E+00	6.173E-01	0.478
TH-231	-1.037E+00		1.023E+00	1.577E+00	2.918E-01	-0.657
U-231	-5.531E+00		1.863E+00	2.539E+00	2.845E-01	-2.178
PA-233	-1.976E-02		8.840E-02	1.450E-01	1.534E-02	-0.136
PA-234	-1.778E-01		4.196E-01	6.603E-01	1.258E-01	-0.269
PA-234M	7.808E-01		6.795E+00	1.140E+01	1.182E+00	0.069
TH-234	9.430E-01		2.535E+00	4.129E+00	8.044E-01	0.228
U-235	2.876E-01		3.111E-01	5.067E-01	9.285E-02	0.567
NP-236	2.321E-02		1.128E-01	1.833E-01	1.930E-02	0.127
U-238	9.430E-01		2.535E+00	4.129E+00	8.044E-01	0.228
NP-239	8.244E-02		2.687E-01	4.427E-01	4.469E-02	0.186
AM-241	-3.751E-01		3.284E-01	5.125E-01	6.015E-02	-0.732

Sample ID : G1202041818 Acquisition date : 23-FEB-2010 16:54:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	3.890E-02		1.350E-01	2.230E-01	2.350E-02	0.174
AM-246	-9.170E-02		1.923E-01	2.979E-01	2.605E-02	-0.308
CM-247	-2.927E-02		4.999E-02	7.883E-02	6.667E-03	-0.371
CF-249	4.808E-03		5.310E-02	8.794E-02	7.502E-03	0.055
CF-251	6.468E-02		1.749E-01	2.856E-01	3.071E-02	0.226

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202041818           *
* Acquisition date : 23-FEB-2010 16:54:43 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.15     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  8-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202041818          Analyst initials: MXR1            *
* Batch Number     : 952641               Sample Quantity : 1.0986E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.751E+01	4.338E+00	3.737E-01	2.213E+00
CD-109	2.256E+00	1.375E+00	1.033E+00	7.017E-01
SN-126	2.217E-01	1.352E-01	1.035E-01	6.896E-02
TL-208	5.181E-01	1.036E-01	4.196E-02	5.285E-02
BI-211	3.429E+00	6.476E-01	2.319E-01	3.304E-01
PB-212	1.612E+00	2.372E-01	6.337E-02	1.210E-01
PO-212	1.612E+00	2.372E-01	6.337E-02	1.210E-01
BI-214	1.099E+00	2.180E-01	7.319E-02	1.112E-01
PB-214	1.193E+00	2.334E-01	8.080E-02	1.191E-01
PO-214	1.193E+00	2.334E-01	8.080E-02	1.191E-01
PO-216	1.612E+00	2.372E-01	6.337E-02	1.210E-01
PO-218	1.193E+00	2.334E-01	8.080E-02	1.191E-01
RA-224	4.776E+00	2.207E+00	7.209E-01	1.126E+00
RA-226	1.099E+00	2.180E-01	7.319E-02	1.112E-01
AC-228	1.376E+00	3.593E-01	1.487E-01	1.833E-01
RA-228	1.376E+00	3.593E-01	1.487E-01	1.833E-01
TH-228	1.636E+00	2.408E-01	6.434E-02	1.229E-01
TH-230	1.099E+00	2.180E-01	7.319E-02	1.112E-01
TH-232	1.376E+00	3.593E-01	1.487E-01	1.833E-01
U-234	1.099E+00	2.180E-01	7.319E-02	1.112E-01
NP-237	6.510E-01	4.182E-01	2.789E-01	2.134E-01
AM-243	3.504E-01	1.210E-01	7.313E-02	6.175E-02
ANH-511	1.559E-01	9.036E-02	3.014E-02	4.610E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.493E-01	4.302E-01	3.678E-01	2.195E-01	NOT IDENT.
NA-22	-4.046E-02	6.221E-02	4.740E-02	3.174E-02	NOT IDENT.
NA-24	2.271E+05	9.673E+05	0.000E+00	4.935E+05	SHORT HLIF
AL-26	7.910E-03	3.374E-02	2.956E-02	1.722E-02	NOT IDENT.

TI-44	3.306E-01	8.576E-02	5.867E-02	4.376E-02	FAIL ABUN
SC-46	-1.106E-02	4.939E-02	4.065E-02	2.520E-02	FAIL ABUN
V-48	-5.385E-02	8.943E-02	6.987E-02	4.563E-02	NOT IDENT.
CR-51	2.802E-01	5.332E-01	4.660E-01	2.720E-01	NOT IDENT.
MN-52	2.290E-01	2.910E-01	2.722E-01	1.485E-01	NOT IDENT.
MN-54	3.742E-02	4.841E-02	4.338E-02	2.470E-02	NOT IDENT.
CO-56	-2.424E-02	5.255E-02	4.251E-02	2.681E-02	NOT IDENT.
CO-57	-2.482E-02	3.448E-02	2.797E-02	1.759E-02	NOT IDENT.
CO-58	-2.562E-02	4.539E-02	3.619E-02	2.316E-02	NOT IDENT.
FE-59	6.931E-02	1.321E-01	1.146E-01	6.738E-02	NOT IDENT.
CO-60	-2.517E-02	5.185E-02	3.958E-02	2.646E-02	NOT IDENT.
ZN-65	9.214E-02	1.477E-01	1.130E-01	7.536E-02	NOT IDENT.
GE-68	-3.403E-01	1.642E+00	1.335E+00	8.375E-01	NOT IDENT.
AS-73	1.437E-01	2.232E+00	1.930E+00	1.139E+00	NOT IDENT.
AS-74	-9.929E-02	1.293E-01	9.977E-02	6.596E-02	NOT IDENT.
SE-75	-4.652E-02	5.871E-02	4.825E-02	2.995E-02	NOT IDENT.
BR-77	-3.340E+00	1.460E+01	1.156E+01	7.447E+00	FAIL ABUN
SR-82	-4.393E-01	4.730E-01	3.664E-01	2.413E-01	NOT IDENT.
RB-83	-3.145E-02	9.848E-02	7.471E-02	5.024E-02	NOT IDENT.
RB-84	8.596E-03	9.303E-02	7.898E-02	4.746E-02	NOT IDENT.
KR-85	2.845E+01	1.099E+01	9.564E+00	5.609E+00	NOT IDENT.
SR-85	1.460E-01	5.642E-02	4.908E-02	2.878E-02	NOT IDENT.
RB-86	-3.487E-01	1.086E+00	8.730E-01	5.539E-01	NOT IDENT.
Y-88	5.058E-02	4.296E-02	4.330E-02	2.192E-02	NOT IDENT.
ZR-88	6.148E-03	4.185E-02	3.561E-02	2.135E-02	NOT IDENT.
Y-91	8.432E+00	2.781E+01	2.352E+01	1.419E+01	NOT IDENT.
NB-94	-3.506E-02	4.278E-02	3.409E-02	2.183E-02	NOT IDENT.
NB-95	2.680E-02	5.814E-02	5.097E-02	2.966E-02	NOT IDENT.
NB-95M	3.233E-01	2.039E-01	1.639E-01	1.040E-01	NOT IDENT.
ZR-95	4.943E-02	9.078E-02	8.046E-02	4.631E-02	NOT IDENT.
NB-97	2.729E+02	1.263E+05	0.000E+00	6.446E+04	SHORT HLIF
ZR-97	5.113E+06	3.055E+06	0.000E+00	1.559E+06	SHORT HLIF
MO-99	8.505E+00	1.542E+01	1.366E+01	7.868E+00	NOT IDENT.
TC-99M	-5.425E+16	6.871E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	5.082E-03	4.675E-02	3.792E-02	2.385E-02	NOT IDENT.
RH-102	2.587E-02	3.879E-02	3.387E-02	1.979E-02	NOT IDENT.
RU-103	1.306E-02	5.074E-02	4.308E-02	2.589E-02	FAIL ABUN
RH-106	1.607E-01	4.359E-01	3.685E-01	2.224E-01	FAIL ABUN
RU-106	1.607E-01	4.356E-01	3.685E-01	2.222E-01	FAIL ABUN
AG-108M	-6.742E-03	4.166E-02	3.453E-02	2.126E-02	NOT IDENT.
AG-110M	2.365E-03	4.177E-02	3.597E-02	2.131E-02	NOT IDENT.
IN-111	2.106E+00	1.615E+00	1.306E+00	8.241E-01	NOT IDENT.
IN-113M	3.093E-02	5.890E-02	5.128E-02	3.005E-02	NOT IDENT.
SN-113	3.093E-02	5.890E-02	5.128E-02	3.005E-02	NOT IDENT.
IN-114M	1.012E-01	2.847E-01	2.094E-01	1.453E-01	NOT IDENT.
CD-115	1.804E+00	1.496E+01	1.253E+01	7.634E+00	NOT IDENT.
SN-117M	9.325E-03	7.738E-02	6.465E-02	3.948E-02	NOT IDENT.
SB-122	2.815E-02	3.060E+00	2.469E+00	1.561E+00	NOT IDENT.
I-123	4.437E+06	8.928E+06	0.000E+00	4.555E+06	SHORT HLIF
TE-123M	1.962E-02	3.948E-02	3.349E-02	2.015E-02	NOT IDENT.
I-124	-6.153E-01	1.116E+00	7.436E-01	5.696E-01	NOT IDENT.
SB-124	-2.843E-02	1.092E-01	8.728E-02	5.571E-02	FAIL ABUN
SB-125	-6.139E-02	1.213E-01	9.812E-02	6.188E-02	NOT IDENT.
TE-125M	-1.268E+01	1.324E+01	1.043E+01	6.753E+00	NOT IDENT.
I-126	8.590E-02	2.069E-01	1.832E-01	1.056E-01	NOT IDENT.
SB-126	9.916E-02	2.170E-01	1.675E-01	1.107E-01	FAIL ABUN
SB-127	-9.228E-01	1.807E+00	1.481E+00	9.219E-01	NOT IDENT.
XE-127	-3.197E-02	7.160E-02	5.280E-02	3.653E-02	NOT IDENT.
I-131	-2.244E-02	1.472E-01	1.233E-01	7.509E-02	NOT IDENT.
TE-132	-1.803E-01	9.954E-01	8.545E-01	5.079E-01	NOT IDENT.
BA-133	1.411E-02	6.736E-02	5.036E-02	3.437E-02	NOT IDENT.
I-133	1.575E+03	8.741E+03	0.000E+00	4.460E+03	SHORT HLIF
CS-134	6.341E-02	6.121E-02	5.580E-02	3.123E-02	NOT IDENT.
CS-135	1.951E-01	2.208E-01	1.962E-01	1.127E-01	NOT IDENT.
I-135	3.729E+15	9.849E+15	0.000E+00	5.025E+15	SHORT HLIF
CS-136	8.387E-02	1.511E-01	1.321E-01	7.708E-02	FAIL ABUN
BA-137M	-2.485E-02	4.143E-02	3.367E-02	2.114E-02	NOT IDENT.
CS-137	-2.627E-02	4.380E-02	3.559E-02	2.235E-02	NOT IDENT.
CE-139	1.559E-02	3.962E-02	3.344E-02	2.022E-02	NOT IDENT.
BA-140	2.441E-01	3.562E-01	3.033E-01	1.817E-01	NOT IDENT.
LA-140	-1.202E-01	1.104E-01	7.513E-02	5.630E-02	NOT IDENT.
CE-141	4.351E-02	8.920E-02	7.579E-02	4.551E-02	NOT IDENT.
CE-143	8.708E+02	3.115E+02	0.000E+00	1.590E+02	SHORT HLIF
CE-144	-2.076E-01	2.962E-01	2.392E-01	1.511E-01	NOT IDENT.
PM-144	6.386E-02	4.870E-02	4.495E-02	2.485E-02	NOT IDENT.
PR-144	4.328E+00	3.300E+00	3.046E+00	1.684E+00	NOT IDENT.
PM-146	4.765E-02	5.803E-02	5.112E-02	2.961E-02	NOT IDENT.
ND-147	1.869E-01	7.547E-01	6.375E-01	3.851E-01	NOT IDENT.

PM-149	-1.285E+01	1.298E+02	1.106E+02	6.621E+01	NOT IDENT.
EU-152	-1.683E-01	1.772E-01	1.012E-01	9.041E-02	NOT IDENT.
GD-153	-2.937E-01	1.203E-01	8.827E-02	6.136E-02	NOT IDENT.
EU-154	-8.255E-02	1.709E-01	1.327E-01	8.718E-02	NOT IDENT.
EU-155	1.286E-03	1.490E-01	1.258E-01	7.600E-02	FAIL ABUN
TB-160	1.194E-01	1.867E-01	1.659E-01	9.527E-02	FAIL ABUN
HO-166M	5.330E-02	7.826E-02	7.011E-02	3.993E-02	NOT IDENT.
TM-171	-2.390E+01	4.933E+01	4.144E+01	2.517E+01	NOT IDENT.
LU-176	-8.290E-03	3.262E-02	2.745E-02	1.664E-02	FAIL ABUN
LU-177	2.792E+00	2.071E+00	1.388E+00	1.057E+00	FAIL ABUN
LU-177M	-1.684E-01	2.384E-01	1.909E-01	1.217E-01	NOT IDENT.
HF-181	1.906E-02	5.253E-02	4.503E-02	2.680E-02	NOT IDENT.
W-181	9.058E-01	6.464E-01	5.769E-01	3.298E-01	NOT IDENT.
TA-182	-1.506E-02	2.972E-01	2.437E-01	1.516E-01	FAIL ABUN
RE-183	-6.115E-02	1.556E-01	1.250E-01	7.940E-02	FAIL ABUN
RE-184	-3.355E-02	3.067E-01	2.628E-01	1.565E-01	NOT IDENT.
OS-185	5.974E-03	5.710E-02	4.723E-02	2.913E-02	NOT IDENT.
RE-188	7.836E-02	2.418E-01	2.038E-01	1.234E-01	NOT IDENT.
W-188	4.395E+00	1.099E+01	8.417E+00	5.608E+00	NOT IDENT.
IR-192	-3.052E-02	4.847E-02	3.982E-02	2.473E-02	FAIL ABUN
AU-195	1.331E-01	3.081E-01	2.650E-01	1.572E-01	FAIL ABUN
TL-200	2.431E+02	5.991E+02	0.000E+00	3.057E+02	SHORT HLIF
TL-201	-8.839E+00	9.789E+00	7.739E+00	4.995E+00	NOT IDENT.
TL-202	2.652E-02	9.051E-02	7.741E-02	4.618E-02	NOT IDENT.
HG-203	1.095E-02	5.588E-02	4.836E-02	2.851E-02	NOT IDENT.
BI-207	3.575E-02	6.992E-02	6.098E-02	3.567E-02	FAIL ABUN
TL-207	-1.037E+00	1.002E+00	7.932E-01	5.114E-01	FAIL ABUN
PO-209	2.453E+00	9.876E+00	8.492E+00	5.039E+00	NOT IDENT.
BI-210	5.969E+00	1.465E+01	1.265E+01	7.472E+00	NOT IDENT.
PB-210	5.969E+00	1.465E+01	1.265E+01	7.472E+00	NOT IDENT.
PO-210	5.969E+00	1.464E+01	1.265E+01	7.471E+00	NOT IDENT.
PB-211	-1.414E+00	1.544E+00	9.981E-01	7.878E-01	NOT IDENT.
BI-212	9.972E-01	6.532E-01	4.103E-01	3.333E-01	FAIL ABUN
PO-215	-1.037E+00	1.002E+00	7.932E-01	5.114E-01	FAIL ABUN
RN-219	1.825E-02	5.370E-01	4.533E-01	2.740E-01	NOT IDENT.
RN-220	1.507E+01	3.455E+01	2.956E+01	1.763E+01	NOT IDENT.
RA-223	-1.037E+00	1.002E+00	7.932E-01	5.114E-01	FAIL ABUN
AC-227	-1.262E-01	5.186E-01	4.409E-01	2.646E-01	NOT IDENT.
TH-227	-1.262E-01	5.187E-01	4.409E-01	2.646E-01	NOT IDENT.
TH-229	-1.078E-01	7.003E-01	5.728E-01	3.573E-01	FAIL ABUN
PA-231	1.789E+00	2.130E+00	1.884E+00	1.087E+00	NOT IDENT.
TH-231	-1.037E+00	1.002E+00	7.932E-01	5.114E-01	FAIL ABUN
U-231	-5.531E+00	1.826E+00	1.288E+00	9.316E-01	NOT IDENT.
PA-233	-1.976E-02	8.663E-02	7.295E-02	4.420E-02	FAIL ABUN
PA-234	-1.778E-01	4.112E-01	3.295E-01	2.098E-01	FAIL ABUN
PA-234M	7.808E-01	6.659E+00	5.686E+00	3.397E+00	NOT IDENT.
TH-234	9.430E-01	2.484E+00	2.101E+00	1.267E+00	NOT IDENT.
U-235	2.876E-01	3.049E-01	2.563E-01	1.556E-01	FAIL ABUN
NP-236	2.321E-02	1.105E-01	9.267E-02	5.640E-02	NOT IDENT.
U-238	9.430E-01	2.484E+00	2.101E+00	1.267E+00	NOT IDENT.
NP-239	8.244E-02	2.633E-01	2.243E-01	1.343E-01	FAIL ABUN
AM-241	-3.751E-01	3.218E-01	2.608E-01	1.642E-01	NOT IDENT.
CM-243	3.890E-02	1.323E-01	1.131E-01	6.750E-02	FAIL ABUN
AM-246	-9.170E-02	1.885E-01	1.485E-01	9.615E-02	NOT IDENT.
CM-247	-2.927E-02	4.899E-02	3.958E-02	2.499E-02	NOT IDENT.
CF-249	4.808E-03	5.204E-02	4.417E-02	2.655E-02	NOT IDENT.
CF-251	6.468E-02	1.714E-01	1.442E-01	8.746E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	240.6465
46.50	240.6465
46.50	240.6465
48.70	274.0231
49.72	275.4520
51.35	254.1420
52.39	248.8117
52.97	258.6615
53.15	258.7369
53.44	252.1219
54.07	235.0379
56.28	275.4909
56.28	275.4925
57.37	0.0000
57.53	251.8143
57.53	251.8150
57.60	251.8413
57.98	239.3891
57.98	239.3891
59.32	280.6677
59.32	280.6677
59.40	305.9553
59.54	306.0196
59.72	306.1031
60.01	308.1809
61.10	296.0250
61.14	296.0424
61.30	296.1131
63.00	308.5735
63.29	289.1655
63.29	289.1655
63.58	272.6733
64.28	268.0581
65.12	275.2386
65.20	275.2705
65.20	275.2705
66.05	329.5481
66.72	345.5681
66.83	347.5863
66.91	347.6261
67.20	347.7679
67.20	347.7679
67.75	350.9847
67.85	363.8179
68.90	374.7600
68.90	374.7600
69.30	360.3279
69.67	354.8804
70.82	293.8287
70.82	293.8287
70.83	293.8332
72.80	331.0476
72.87	331.0789
72.87	331.0789
74.67	368.3949
74.81	354.3676
74.81	354.3676
74.81	354.3676
74.81	354.3676
74.81	354.3676
74.81	354.3676
74.81	354.3676
74.97	354.4424
75.28	354.5868
75.70	354.7816
77.11	355.4339
77.11	355.4339

77.11	355.4339
77.11	355.4339
77.11	355.4339
77.11	355.4339
77.11	355.4339
78.38	296.7804
79.62	322.8203
79.80	354.8640
79.80	354.8640
80.11	355.0035
80.18	355.0347
80.30	369.4844
80.30	369.4844
80.57	369.6099
81.00	405.0301
81.07	405.0656
81.07	405.0656
81.07	405.0656
81.07	405.0656
82.60	384.9873
83.37	330.7618
83.78	330.9303
83.78	330.9303
83.78	330.9303
83.78	330.9303
84.21	316.6405
84.90	305.6473
85.43	313.8936
86.29	331.9474
86.50	364.2678
86.54	364.2843
86.59	364.3064
86.72	364.3643
86.79	439.3680
86.94	448.5207
87.30	427.5389
87.30	427.5389
87.30	427.5389
87.30	427.5389
87.30	427.5389
87.30	427.5389
87.30	427.5389
87.57	449.8689
87.88	438.9361
88.03	439.0157
88.36	476.5446
88.47	476.6076
89.95	668.4227
91.11	510.5099
92.29	321.3343
92.38	366.5436
92.38	366.5436
93.35	386.9270
94.00	368.9239
94.67	363.1024
94.67	363.1052
94.90	383.5479
94.90	383.5479
94.90	383.5479
94.90	383.5479
95.87	510.2653
95.87	510.2653
96.73	526.0565
97.43	409.1364
98.44	310.5185
98.44	310.5197
98.88	283.0790
99.55	269.9951
99.55	269.9951
99.86	267.0186
100.00	267.0604
100.10	267.0903
103.18	324.4659
103.76	282.5457
105.00	280.8658
105.31	299.4843
108.00	288.9893
109.28	322.4510

111.00	270.2266
111.00	270.2266
111.76	291.1630
112.95	282.1830
115.19	307.7849
116.30	305.0075
117.00	285.4296
117.00	285.4296
117.66	268.9403
121.11	291.8291
121.62	297.2074
121.78	295.1607
122.06	293.1485
122.32	285.8916
122.32	285.8916
122.32	285.8916
122.32	285.8916
123.07	269.3332
127.23	292.5122
129.76	258.4083
131.20	270.3770
133.02	326.9074
133.54	336.5916
135.34	314.8850
136.00	282.1887
136.25	296.0480
136.48	292.9257
140.51	319.5602
140.51	0.0000
142.18	306.1703
142.65	302.0283
143.76	271.3459
144.24	287.4913
144.24	287.4913
144.24	287.4913
144.24	287.4913
145.22	283.4610
145.44	302.7732
147.16	323.5892
152.43	277.7016
152.70	272.3815
153.22	281.1198
154.21	294.2906
154.21	294.2906
154.21	294.2906
154.21	294.2906
155.03	290.1798
156.02	294.7405
158.56	281.3023
159.00	0.0000
159.00	265.1687
160.31	271.9575
161.27	276.5114
162.32	281.0898
162.64	273.5640
163.35	272.6373
163.89	269.4979
165.85	240.5385
167.43	280.0781
171.28	253.6102
171.86	237.3222
172.10	246.1178
176.55	240.3901
176.60	237.1069
181.06	250.2594
184.41	240.2960
185.71	250.9224
186.00	250.9760
190.27	239.5756
192.34	257.7148
193.63	247.9521
197.04	222.9309
198.01	239.8197
198.60	247.7328
200.40	243.5835
201.83	275.1509
202.84	259.6778
205.31	235.0164

208.36	264.2860
208.81	234.9193
209.75	199.7553
209.75	199.7553
210.97	247.6544
215.65	244.9399
216.55	226.9096
218.09	244.3414
222.10	272.2247
223.80	249.8230
226.40	238.4242
227.00	235.7874
227.08	251.2789
227.20	251.2975
228.16	249.6353
228.18	249.6387
228.18	249.6387
231.56	0.0000
235.69	241.0969
236.00	241.1451
236.00	241.1451
238.63	210.9756
238.63	210.9756
238.63	210.9756
238.63	210.9756
239.00	211.0247
240.98	211.2914
241.98	211.4262
241.98	211.4262
241.98	211.4262
244.69	165.7474
245.39	162.7492
247.94	163.0091
248.90	188.6052
249.79	207.3316
252.40	173.0218
252.85	180.4738
252.85	180.4738
254.15	0.0000
256.20	193.8276
256.20	193.8276
260.50	173.8790
260.90	176.7102
262.80	189.0165
264.65	188.2950
268.24	186.8286
268.79	169.1351
269.46	170.1362
269.46	170.1362
269.46	170.1362
269.46	170.1362
271.23	179.6719
273.65	249.2743
276.40	181.1542
277.35	187.8271
277.60	184.0993
277.60	184.0993
278.00	175.6846
278.60	170.1073
279.20	181.4487
279.53	177.7204
280.46	192.8707
281.68	193.0058
283.67	158.3490
284.30	167.8354
285.00	180.1653
285.90	174.5960
286.10	171.7825
286.10	171.7825
287.40	170.9646
288.45	0.0000
290.67	151.4082
290.80	151.4199
291.72	149.9199
293.26	0.0000
293.70	156.4056
295.21	186.8951
295.21	186.8951

295.21	186.8951
295.96	202.4740
296.50	216.7773
297.23	196.2854
298.57	159.9968
299.80	172.7851
299.80	172.7851
300.09	161.7158
300.09	161.7158
300.09	161.7158
300.09	161.7158
300.12	161.7179
301.29	152.3027
302.84	158.7830
303.76	182.0585
303.91	182.0725
304.40	184.9820
304.40	184.9820
304.84	165.9521
306.84	148.9446
308.46	147.1647
311.98	152.2301
316.51	167.9547
318.01	145.0352
319.02	145.1126
319.41	144.1827
320.08	153.8477
323.87	203.2910
323.87	203.2910
323.87	203.2910
323.87	203.2910
325.23	182.2240
328.77	170.0037
333.44	175.8987
334.20	158.2092
334.20	158.2092
334.30	159.8317
338.28	164.0385
338.28	164.0385
338.28	164.0385
338.28	164.0385
338.32	164.0426
338.32	164.0426
338.32	164.0426
340.50	114.9879
340.57	114.9922
344.27	155.7734
345.85	136.4094
350.59	0.0000
351.07	139.6938
351.92	139.7532
351.92	139.7532
351.92	139.7532
355.39	0.0000
356.01	130.5680
364.48	111.1144
366.43	105.3124
367.43	96.5011
367.94	0.0000
369.80	106.4694
374.96	102.7774
383.85	120.0783
387.95	112.3531
388.63	120.3442
391.69	107.5663
391.69	107.5663
392.90	119.5854
398.62	111.9043
400.65	112.0068
401.10	115.0309
401.81	111.0650
402.60	124.1181
404.84	141.2771
410.95	122.5734
411.60	132.6590
413.65	127.7503
414.70	111.7073
415.30	111.7371

415.76	99.6780
417.63	0.0000
418.52	128.0247
423.70	90.9316
427.08	111.3025
427.89	110.3292
432.53	91.2799
433.93	96.4090
439.47	93.5857
439.56	93.5891
439.89	101.7407
443.98	101.9177
444.90	84.6241
445.03	84.6292
445.03	84.6292
445.03	84.6292
445.03	84.6292
453.90	88.0135
463.38	91.4412
468.07	129.7037
473.00	103.1458
475.06	85.6819
475.35	86.7245
476.78	89.8738
477.59	90.9358
477.96	93.0168
482.03	75.5700
484.57	88.0806
487.03	75.7197
490.36	0.0000
492.35	82.1158
497.08	76.0191
507.63	0.0000
510.53	0.0000
510.84	83.7534
511.00	83.7583
511.85	83.7852
511.85	83.7852
513.99	69.8783
513.99	69.8783
520.41	91.9391
520.65	88.7368
527.90	85.3486
528.96	0.0000
529.64	84.3516
529.87	0.0000
531.02	82.2847
537.32	76.1326
543.00	77.3522
546.56	0.0000
549.76	76.4807
552.65	74.4348
555.20	90.4681
563.23	88.5948
563.90	93.9533
568.70	84.4891
569.32	74.8809
569.50	74.8860
569.67	75.9593
573.80	96.4270
574.00	96.4336
574.64	85.7383
578.91	57.2448
579.30	0.0000
583.14	94.5936
585.48	93.2365
591.81	85.1757
592.07	83.0269
593.00	86.2891
595.88	100.4109
600.56	69.2109
602.52	0.0000
602.71	106.4189
602.71	106.4189
603.60	122.6883
604.41	122.7215
604.70	117.3206
609.31	81.3483

609.31	81.3483
609.31	81.3483
609.31	81.3483
610.33	81.3776
612.46	65.1489
614.37	67.0008
618.01	94.7976
621.84	75.1571
621.84	75.1571
631.29	64.4664
633.02	54.6631
633.10	53.5710
634.78	60.1643
635.90	54.7156
636.97	62.3966
645.85	69.1662
646.12	71.3667
656.30	53.2434
657.75	65.2076
657.90	0.0000
661.65	69.8862
661.65	69.8862
664.57	0.0000
666.33	56.1760
666.33	56.1760
675.00	70.1816
677.61	73.0130
685.20	79.6714
692.80	90.0731
695.00	81.7713
696.49	73.4421
696.49	73.4421
697.00	62.2959
697.49	70.6748
698.33	78.1348
698.50	79.9986
699.00	78.1501
702.63	84.7571
706.10	67.1323
706.58	0.0000
706.67	71.8068
709.31	76.5297
711.68	63.5093
713.82	68.2236
717.42	83.2673
720.50	67.4253
721.93	0.0000
722.20	62.6405
722.78	65.8643
722.78	65.8643
722.89	65.8671
722.95	65.8685
723.30	69.0876
724.18	93.2143
727.18	73.1901
733.00	56.3977
735.90	71.1226
739.58	60.2747
742.81	64.1028
744.21	67.9014
747.13	70.7916
751.79	75.6136
752.31	72.7891
753.82	67.1461
755.35	64.3380
756.15	58.6750
756.87	65.3122
763.93	88.2092
765.79	78.7666
766.42	81.6293
766.84	76.8917
776.49	69.4890
778.00	61.9002
778.57	58.1009
778.89	56.2008
783.80	59.1404
785.46	54.3965
792.07	60.2353

795.84	57.4268
796.30	56.4780
798.80	76.6325
801.93	64.2356
805.60	54.7039
810.29	53.8148
810.76	52.8605
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817.79	43.3328
818.51	41.4157
819.60	37.5742
826.30	54.0506
828.27	0.0000
831.60	60.8954
831.96	58.9672
834.83	56.1108
836.80	0.0000
846.75	65.9967
848.13	66.9911
856.28	0.0000
856.80	51.7157
860.37	53.5733
867.32	48.5137
867.82	58.5583
871.10	54.7012
873.19	59.6175
874.81	51.8214
875.33	0.0000
876.40	52.8212
879.36	49.9250
880.27	51.8948
880.51	56.7940
881.50	54.8493
883.24	52.9146
884.67	49.9935
889.25	52.0155
896.60	53.0969
898.02	63.9368
899.00	66.9043
903.28	61.7245
911.07	60.2020
911.07	60.2020
911.07	60.2020
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920.93	51.4478
925.00	47.5391
925.24	47.5420
926.50	54.4920
935.52	54.6151
937.48	71.5298
944.10	65.6771
946.00	60.7295
949.00	47.8232
962.29	68.3694
964.01	56.5703
966.15	65.1747
968.20	97.8117
969.11	102.9827
969.11	102.9827
969.11	102.9827
977.42	38.7910
980.50	42.1666
983.50	51.2386
989.30	48.2920
996.32	75.5829
1001.03	56.4979
1001.68	59.5342
1004.76	60.5872
1021.30	0.0000
1024.50	0.0000
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1036.00	47.8070
1037.82	50.8789
1038.57	43.7646
1038.76	0.0000
1045.16	46.8891
1046.59	49.9630
1048.07	48.9590

1050.47	54.0891
1050.47	54.0891
1062.04	45.0223
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1078.86	53.4092
1085.78	48.3483
1099.22	53.6525
1112.02	56.7589
1112.84	54.9960
1115.52	56.8036
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1120.29	66.3385
1120.51	66.3411
1121.28	62.2070
1124.00	0.0000
1129.67	39.6578
1131.51	0.0000
1147.95	0.0000
1167.94	65.9736
1173.22	38.7886
1175.09	49.2911
1177.93	82.9024
1189.05	64.1622
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1205.75	0.0000
1213.00	60.2517
1221.42	75.1804
1230.97	78.5076
1235.34	65.8346
1236.41	0.0000
1238.25	80.7500
1246.25	56.4031
1260.41	0.0000
1271.85	42.7865
1274.45	47.0884
1274.54	50.3009
1291.56	46.1739
1298.22	0.0000
1312.09	39.8891
1325.50	32.4268
1325.50	32.4268
1332.49	34.6354
1333.61	31.3942
1360.21	17.7197
1362.66	0.0000
1365.15	28.9382
1368.21	22.4163
1368.53	0.0000
1376.25	23.3852
1384.27	24.3569
1394.10	17.8317
1395.20	14.0808
1407.95	30.1094
1434.06	16.0715
1436.60	14.1875
1457.56	0.0000
1460.81	23.7488
1489.15	15.2757
1509.49	18.2041
1596.49	26.2551
1620.62	18.5500
1678.03	0.0000
1691.02	18.7628
1691.02	18.7628
1706.46	0.0000
1750.46	0.0000
1764.49	10.9885
1764.49	10.9885
1764.49	10.9885
1764.49	10.9885
1770.23	47.9916
1771.40	38.0000
1791.20	0.0000
1808.65	8.0455

1836.01 6.0590

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202041818

Total Uranium Activity	2.9384E+00	ug/g
Total Uranium Counting Unc.	7.3910E+00	ug/g
Total Uranium Tpu	3.7709E-06	ug/g
Total Uranium Mda	6.2513E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 952641                    SAMPLE ID  : G1202041818      *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  8-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 16:54:43.32    SAMPLE ALQT:  109.860 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.736E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.353E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.377E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.145E+00
```

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 16:25:26.00

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041819.CNF;1
Sample date       : 15-FEB-2010 00:00:00 Acquisition date : 23-FEB-2010 15:23:08
Sample ID         : G1202041819          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.56  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	57.72	89	138	0.99	115.44	114	10	2.48E-02	16.8	3.30E+00
2	2	59.42	2155	287	1.06	118.84	114	10	5.99E-01	2.5	
3	0	76.16*	199	796	2.52	152.32	144	15	5.54E-02	31.7	
4	0	87.91	1197	570	1.10	175.81	170	12	3.33E-01	4.9	
5	0	92.80*	65	283	1.24	185.59	182	8	1.81E-02	47.8	
6	0	121.84	249	323	1.08	243.68	239	11	6.92E-02	15.3	
7	4	238.26*	487	160	1.31	476.52	469	20	1.35E-01	6.4	1.26E+00
8	4	241.31	140	215	2.15	482.62	469	20	3.89E-02	28.6	
9	0	294.66	136	294	1.17	589.32	582	14	3.77E-02	28.1	
10	0	336.99*	85	184	1.69	673.98	669	11	2.35E-02	33.1	
11	0	351.39*	200	322	1.83	702.77	694	19	5.56E-02	22.7	
12	0	583.21*	141	152	1.84	1166.42	1157	16	3.91E-02	21.4	
13	0	608.72	87	141	1.26	1217.44	1212	12	2.42E-02	29.2	
14	0	660.84	1919	122	1.80	1321.68	1315	14	5.33E-01	2.6	
15	0	909.96	107	80	1.67	1819.93	1814	11	2.98E-02	18.8	
16	0	1171.89	1439	109	1.98	2343.79	2333	22	4.00E-01	3.2	
17	0	1331.07	1294	38	2.15	2662.15	2651	22	3.59E-01	3.0	
18	0	1459.73*	20	3	2.22	2919.45	2913	11	5.46E-03	30.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 16:25:28

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041819.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 15-FEB-2010 00:00:00 Acquisition date : 23-FEB-2010 15:23:08
Sample ID : G1202041819 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.56 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	8.922E-01	5.391E-01	6.406E-01	4.792E-02	1.393
CO-57	+	122.06	*	2.272E-01	7.071E-02	6.884E-02	4.058E-03	3.301
		136.48		5.761E-02	3.539E-01	5.788E-01	3.764E-02	0.100
CO-60	+	1173.22		5.778E+00	4.959E-01	1.357E-01	7.655E-03	42.581
	+	1332.49	*	5.819E+00	5.538E-01	1.072E-01	7.866E-03	54.309
CD-109	+	88.03	*	2.985E+01	4.144E+00	2.388E+00	2.332E-01	12.497
SN-126		64.28		4.149E-01	1.017E+00	1.535E+00	2.336E-01	0.270
	+	86.94		1.231E+01	5.267E+00	9.999E-01	4.159E-01	12.316
	+	87.57	*	2.962E+00	4.113E-01	2.385E-01	2.320E-02	12.422
BA-137M	+	661.65	*	5.046E+00	3.673E-01	1.283E-01	6.554E-03	39.334
CS-137	+	661.65	*	5.334E+00	3.893E-01	1.356E-01	6.965E-03	39.334
CE-143	+	57.37		1.566E+02	5.506E+01	1.856E+02	1.900E+01	0.844
		231.56		-2.047E+00	2.045E+02	2.866E+02	8.875E+01	-0.007
	+	293.26	*	3.111E+01	1.865E+01	1.488E+01	3.068E+00	2.091
	+	350.59		6.508E+02	3.557E+02	2.045E+02	6.228E+01	3.183
		490.36		-1.154E+02	2.460E+02	3.888E+02	1.206E+02	-0.297
		664.57		5.203E+02	2.182E+02	2.566E+02	8.120E+01	2.028
		721.93		-1.302E+02	1.183E+02	1.640E+02	4.691E+01	-0.794
W-181	+	56.28		1.318E+00	4.582E-01	1.635E+00	1.440E-01	0.806
	+	57.53		7.562E-01	2.629E-01	8.858E-01	7.762E-02	0.854
		65.20	*	2.650E-01	6.508E-01	1.070E+00	9.299E-02	0.248
BI-211		72.87		4.432E+00	6.140E+00	9.310E+00	8.212E-01	0.476
	+	351.07	*	2.171E+00	9.953E-01	6.829E-01	4.450E-02	3.179
PB-212	+	74.81		2.138E+00	1.383E+00	9.908E-01	1.278E-01	2.158
	+	77.11		1.271E+00	8.133E-01	5.551E-01	4.995E-02	2.290
	+	87.30		1.370E+01	2.344E+00	1.107E+00	1.543E-01	12.377
	+	238.63	*	1.136E+00	1.677E-01	1.610E-01	1.158E-02	7.057
		300.09		1.267E-01	1.665E+00	2.451E+00	2.035E-01	0.052
PO-212	+	74.81		2.138E+00	1.383E+00	9.908E-01	1.278E-01	2.158
	+	77.11		1.271E+00	8.133E-01	5.551E-01	4.995E-02	2.290
	+	87.30		1.370E+01	2.344E+00	1.107E+00	1.543E-01	12.377
		115.19		1.707E+00	5.831E+00	9.727E+00	6.205E-01	0.175
	+	238.63	*	1.136E+00	1.677E-01	1.610E-01	1.158E-02	7.057
		300.09		1.267E-01	1.665E+00	2.451E+00	2.035E-01	0.052

Sample ID : G1202041819 Acquisition date : 23-FEB-2010 15:23:08

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-214	+	74.81		3.684E+00	2.373E+00	1.707E+00	1.976E-01	2.158
	+	77.11		2.179E+00	1.404E+00	9.517E-01	1.122E-01	2.290
	+	87.30		2.347E+01	3.727E+00	1.896E+00	2.350E-01	12.377
	+	241.98		1.964E+00	1.135E+00	9.697E-01	7.712E-02	2.026
	+	295.21		8.640E-01	4.920E-01	4.155E-01	3.562E-02	2.079
	+	351.92	*	7.552E-01	3.484E-01	2.381E-01	1.987E-02	3.172
PO-214	+	74.81		3.684E+00	2.373E+00	1.707E+00	1.976E-01	2.158
	+	77.11		2.179E+00	1.404E+00	9.517E-01	1.122E-01	2.290
	+	87.30		2.347E+01	3.727E+00	1.896E+00	2.350E-01	12.377
	+	241.98		1.964E+00	1.135E+00	9.697E-01	7.712E-02	2.026
	+	295.21		8.640E-01	4.920E-01	4.155E-01	3.562E-02	2.079
	+	351.92	*	7.552E-01	3.484E-01	2.381E-01	1.987E-02	3.172
PO-216	+	74.81		2.138E+00	1.383E+00	9.908E-01	1.278E-01	2.158
	+	77.11		1.271E+00	8.133E-01	5.551E-01	4.995E-02	2.290
	+	87.30		1.370E+01	2.344E+00	1.107E+00	1.543E-01	12.377
	+	238.63	*	1.136E+00	1.677E-01	1.610E-01	1.158E-02	7.057
		300.09		1.267E-01	1.665E+00	2.451E+00	2.035E-01	0.052
PO-218	+	74.81		3.684E+00	2.373E+00	1.707E+00	1.976E-01	2.158
	+	77.11		2.179E+00	1.404E+00	9.517E-01	1.122E-01	2.290
	+	87.30		2.347E+01	3.727E+00	1.896E+00	2.350E-01	12.377
	+	241.98		1.964E+00	1.135E+00	9.697E-01	7.712E-02	2.026
	+	295.21		8.640E-01	4.920E-01	4.155E-01	3.562E-02	2.079
	+	351.92	*	7.552E-01	3.484E-01	2.381E-01	1.987E-02	3.172
RA-224	+	240.98	*	3.725E+00	2.142E+00	1.832E+00	1.032E-01	2.033
TH-228	+	74.81		2.157E+00	1.380E+00	9.994E-01	8.957E-02	2.158
	+	77.11		1.282E+00	8.203E-01	5.599E-01	5.038E-02	2.290
	+	87.30		1.382E+01	1.919E+00	1.116E+00	1.084E-01	12.377
	+	238.63	*	1.146E+00	1.691E-01	1.624E-01	1.168E-02	7.057
		300.09		1.278E-01	1.681E+00	2.472E+00	1.457E+00	0.052
NP-237	+	86.50	*	8.699E+00	2.163E+00	7.234E-01	1.647E-01	12.025
		95.87		-1.175E+00	1.742E+00	2.398E+00	5.888E-01	-0.490
AM-241	+	59.54	*	1.405E+01	1.485E+00	6.055E-01	5.634E-02	23.200
AM-243	+	74.67	*	3.467E-01	2.218E-01	1.613E-01	1.433E-02	2.150
	+	86.72		3.262E+02	4.529E+01	2.657E+01	2.565E+00	12.278
		117.66		-9.789E-01	7.052E+00	1.010E+01	6.253E-01	-0.097
		142.18		-1.741E+01	2.908E+01	4.631E+01	2.522E+00	-0.376

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.711E-02	6.631E-01	1.089E+00	7.403E-02	-0.025
NA-22		1274.54	*	-4.373E-02	5.543E-02	7.776E-02	5.222E-03	-0.562
NA-24		1368.53	*	5.557E-08	5.543E-02	Half-Life too short		
AL-26		1129.67		-3.572E-01	3.618E+00	5.891E+00	3.753E-01	-0.061
		1808.65	*	1.192E-02	3.851E-02	6.908E-02	4.152E-03	0.173
TI-44		67.85		-2.004E-02	8.287E-02	1.372E-01	1.195E-02	-0.146
		78.38	*	1.574E-01	7.557E-02	1.188E-01	1.077E-02	1.325
SC-46		889.25	*	9.556E-02	9.580E-02	1.692E-01	1.511E-02	0.565

Sample ID : G1202041819 Acquisition date : 23-FEB-2010 15:23:08

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1120.51		1.090E-01	1.081E-01	1.905E-01	1.241E-02	0.572
V-48		944.10		-8.238E-01	1.908E+00	3.080E+00	2.684E-01	-0.267
		983.50	*	1.116E-01	1.378E-01	2.403E-01	1.999E-02	0.464
		1312.09		1.985E-02	8.290E-02	1.401E-01	9.967E-03	0.142
CR-51		320.08	*	-7.674E-01	6.046E-01	9.433E-01	6.185E-02	-0.814
MN-52		744.21		-2.071E-02	2.235E-01	3.566E-01	2.270E-02	-0.058
		848.13		-4.788E+00	7.077E+00	1.124E+01	9.170E-01	-0.426
		935.52		9.152E-03	3.073E-01	5.115E-01	4.497E-02	0.018
		1246.25		4.323E-02	4.152E+00	6.865E+00	4.393E-01	0.006
		1333.61		2.493E+02	2.472E+01	3.784E+01	2.777E+00	6.588
		1434.06	*	1.738E-02	1.215E-01	2.033E-01	1.471E-02	0.085
MN-54		834.83	*	-1.503E-02	8.006E-02	1.321E-01	1.046E-02	-0.114
CO-56		846.75	*	-2.943E-03	8.492E-02	1.415E-01	1.151E-02	-0.021
		977.42		-5.101E+00	7.237E+00	1.137E+01	9.535E-01	-0.449
		1037.82		-6.092E-01	7.411E-01	1.145E+00	9.385E-02	-0.532
		1175.09		1.231E+02	1.270E+01	2.331E+01	1.320E+00	5.280
		1238.25		9.940E-02	1.092E-01	1.977E-01	1.315E-02	0.503
		1360.21		-1.994E-01	1.181E+00	1.848E+00	1.353E-01	-0.108
		1771.40		1.448E-01	3.008E-01	5.545E-01	3.430E-02	0.261
CO-58		810.76	*	-1.195E-02	7.930E-02	1.313E-01	9.867E-03	-0.091
FE-59		142.65		-1.881E+00	4.005E+00	6.405E+00	3.483E-01	-0.294
		192.34		-1.174E+00	1.568E+00	2.442E+00	2.825E-01	-0.481
		1099.22	*	5.702E-03	1.921E-01	3.168E-01	2.440E-02	0.018
		1291.56		5.235E-02	1.512E-01	2.593E-01	2.152E-02	0.202
ZN-65		1115.52	*	-1.855E-02	2.037E-01	3.325E-01	2.196E-02	-0.056
GE-68		1077.35	*	1.479E+00	2.955E+00	5.050E+00	3.614E-01	0.293
AS-73		53.44	*	6.903E-01	2.467E+00	3.890E+00	3.435E-01	0.177
AS-74		595.88	*	-1.625E-02	1.447E-01	2.337E-01	1.289E-02	-0.070
		634.78		-2.803E-02	5.812E-01	9.396E-01	4.974E-02	-0.030
SE-75		66.05		2.535E+00	8.321E+00	1.407E+01	1.476E+00	0.180
		96.73		-4.585E-02	1.329E+00	1.929E+00	2.586E-01	-0.024
	+	121.11		1.196E+00	3.821E-01	4.813E-01	4.489E-02	2.486
		136.00		1.467E-03	6.506E-02	1.058E-01	5.973E-03	0.014
		198.60		-1.054E+00	3.048E+00	4.848E+00	3.273E-01	-0.217
		264.65	*	3.792E-02	8.457E-02	1.383E-01	8.048E-03	0.274
		279.53		-1.817E-01	1.906E-01	3.063E-01	1.926E-02	-0.593
		303.91		-3.223E+00	3.903E+00	6.279E+00	6.024E-01	-0.513
		400.65		-5.230E-01	5.406E-01	8.486E-01	7.722E-02	-0.616
BR-77	+	87.88		9.791E+02	1.359E+02	1.490E+02	1.454E+01	6.572
		200.40		-1.530E+01	4.337E+01	6.892E+01	3.687E+00	-0.222
	+	239.00		2.743E+01	3.858E+00	7.033E+00	3.954E-01	3.901
		249.79		-2.808E+01	1.946E+01	2.866E+01	1.629E+00	-0.980
		281.68		-1.075E+01	2.491E+01	4.112E+01	2.397E+00	-0.262
		297.23		1.896E+01	1.777E+01	2.769E+01	1.626E+00	0.685
		303.76		-4.127E+01	5.188E+01	8.379E+01	4.932E+00	-0.493
		439.47		4.853E+01	4.993E+01	8.656E+01	5.064E+00	0.561
		484.57		1.861E+01	7.643E+01	1.276E+02	7.457E+00	0.146
		520.65	*	-2.474E+00	3.404E+00	5.310E+00	3.074E-01	-0.466
		574.64		-3.099E+01	6.842E+01	9.666E+01	5.426E+00	-0.321

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		578.91		1.349E+00	2.737E+01	3.878E+01	2.170E+00	0.035
		585.48		1.154E+02	6.166E+01	1.007E+02	5.603E+00	1.146
		755.35		2.119E+01	5.116E+01	8.501E+01	5.566E+00	0.249
		817.79		9.501E+00	4.704E+01	7.982E+01	6.076E+00	0.119
SR-82		698.33		-3.412E+01	5.994E+01	9.243E+01	5.221E+00	-0.369
		776.49	*	-4.211E-01	7.092E-01	1.141E+00	7.875E-02	-0.369
		1395.20		5.351E+00	1.246E+01	2.182E+01	1.590E+00	0.245
RB-83		520.41	*	-1.075E-01	1.418E-01	2.206E-01	1.277E-02	-0.487
		529.64		1.151E-01	2.125E-01	3.601E-01	2.077E-02	0.320
		552.65		-1.311E-01	3.895E-01	6.214E-01	3.540E-02	-0.211
RB-84		881.50	*	-1.385E-01	1.511E-01	2.348E-01	2.063E-02	-0.590
KR-85		513.99	*	-3.378E+01	1.721E+01	2.500E+01	1.451E+00	-1.351
SR-85		513.99	*	-1.618E-01	8.239E-02	1.197E-01	6.948E-03	-1.351
RB-86		1076.63	*	8.857E-01	1.506E+00	2.588E+00	1.855E-01	0.342
Y-88		898.02		1.296E-01	9.972E-02	1.789E-01	1.636E-02	0.724
		1836.01	*	-1.116E-02	4.114E-02	6.249E-02	3.679E-03	-0.179
ZR-88		392.90	*	-1.056E-03	6.193E-02	1.028E-01	5.938E-03	-0.010
Y-91		1204.90	*	9.929E+00	2.509E+01	4.299E+01	2.564E+00	0.231
NB-94		702.63	*	4.828E-02	6.795E-02	1.155E-01	6.602E-03	0.418
		871.10		7.611E-02	8.272E-02	1.461E-01	1.255E-02	0.521
NB-95		765.79	*	1.222E-02	8.298E-02	1.347E-01	9.053E-03	0.091
NB-95M		235.69	*	5.286E-01	2.576E-01	4.004E-01	2.954E-02	1.320
ZR-95		724.18		1.015E-01	1.819E-01	3.051E-01	2.157E-02	0.333
		756.15	*	2.749E-02	1.392E-01	2.272E-01	1.743E-02	0.121
NB-97		657.90	*	8.174E-03	1.392E-01	Half-Life too short		
		1024.50		-3.430E-02	1.392E-01	Half-Life too short		
ZR-97		254.15		4.542E-03	1.392E-01	Half-Life too short		
		355.39		-1.251E-02	1.392E-01	Half-Life too short		
		507.63	*	-4.098E-03	1.392E-01	Half-Life too short		
		602.52		-9.641E-03	1.392E-01	Half-Life too short		
		1021.30		-1.888E-02	1.392E-01	Half-Life too short		
		1147.95		-9.240E-03	1.392E-01	Half-Life too short		
		1362.66		4.279E-03	1.392E-01	Half-Life too short		
		1750.46		7.031E-03	1.392E-01	Half-Life too short		
MO-99		140.51		-5.514E+00	8.725E+00	1.367E+01	3.675E+00	-0.403
		181.06		-1.425E+00	5.625E+00	9.011E+00	1.527E+00	-0.158
		366.43		3.456E+01	3.286E+01	5.772E+01	3.382E+00	0.599
		739.58	*	-7.754E-01	4.578E+00	7.253E+00	1.015E+00	-0.107
		778.00		1.061E+01	1.456E+01	2.560E+01	1.772E+00	0.414
TC-99M		140.51	*	-6.588E+02	1.456E+01	Half-Life too short		
RH-101		127.23		8.713E-02	6.080E-02	9.447E-02	5.425E-03	0.922
		198.01	*	-4.163E-02	5.840E-02	9.122E-02	4.863E-03	-0.456
		325.23		3.596E-01	4.205E-01	7.330E-01	4.331E-02	0.491
RH-102		418.52		-2.380E-02	6.236E-01	1.031E+00	6.009E-02	-0.023
		475.06	*	-5.602E-02	6.720E-02	1.053E-01	6.163E-03	-0.532
		631.29		7.762E-03	1.150E-01	1.875E-01	9.967E-03	0.041
		697.49		-7.822E-02	1.542E-01	2.386E-01	1.345E-02	-0.328
		766.84		-4.457E-02	2.309E-01	3.651E-01	2.459E-02	-0.122
		1046.59		-9.011E-02	2.887E-01	4.653E-01	3.524E-02	-0.194

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1112.84		-4.041E-01	5.151E-01	7.917E-01	5.252E-02	-0.510
RU-103		497.08	*	3.528E-02	8.178E-02	1.375E-01	1.741E-02	0.257
		610.33		4.474E+00	1.945E+00	3.059E+00	4.676E-01	1.463
RH-106		511.85		2.097E-01	3.744E-01	6.674E-01	3.876E-02	0.314
		621.84	*	1.440E-01	6.610E-01	1.090E+00	1.257E-01	0.132
		1050.47		2.756E+00	5.540E+00	9.471E+00	7.124E-01	0.291
RU-106		511.85		2.097E-01	3.744E-01	6.674E-01	3.876E-02	0.314
		621.84	*	1.440E-01	6.608E-01	1.090E+00	5.859E-02	0.132
		1050.47		2.756E+00	5.540E+00	9.471E+00	7.124E-01	0.291
AG-108M		433.93	*	-1.794E-02	7.510E-02	1.227E-01	7.776E-03	-0.146
		614.37		6.809E-02	8.732E-02	1.324E-01	7.864E-03	0.514
		722.95		-1.186E-01	9.231E-02	1.334E-01	8.672E-03	-0.889
AG-110M		657.75	*	1.370E+00	1.669E-01	3.024E-01	1.680E-02	4.531
		677.61		3.039E-01	6.467E-01	1.082E+00	6.193E-02	0.281
		706.67		-3.089E-01	4.210E-01	6.376E-01	3.905E-02	-0.485
		763.93		-2.221E-01	3.490E-01	5.312E-01	3.718E-02	-0.418
		884.67		-2.343E-02	1.243E-01	2.046E-01	1.865E-02	-0.115
		937.48		2.871E-01	2.981E-01	5.224E-01	4.744E-02	0.550
		1384.27		-8.479E-02	1.736E-01	2.461E-01	1.867E-02	-0.344
IN-111		171.28		-6.173E-03	3.539E-01	5.750E-01	2.950E-02	-0.011
		245.39	*	3.481E-01	4.310E-01	6.386E-01	3.615E-02	0.545
IN-113M		391.69	*	-5.247E-02	9.434E-02	1.523E-01	9.381E-03	-0.345
SN-113		391.69	*	-5.247E-02	9.434E-02	1.523E-01	9.381E-03	-0.345
IN-114M		190.27	*	-1.958E-01	3.063E-01	4.818E-01	2.539E-02	-0.406
CD-115		260.90		3.918E+01	3.356E+01	5.680E+01	3.262E+00	0.690
		492.35		7.676E-01	1.066E+01	1.761E+01	1.028E+00	0.044
		527.90	*	1.666E-01	3.106E+00	5.107E+00	2.947E-01	0.033
SN-117M		156.02		4.725E-01	2.710E+00	4.455E+00	2.331E-01	0.106
		158.56	*	3.207E-02	6.510E-02	1.085E-01	5.639E-03	0.296
SB-122		563.90	*	-5.240E-02	8.026E-01	1.305E+00	7.379E-02	-0.040
		692.80		-5.883E+00	1.692E+01	2.656E+01	1.478E+00	-0.222
I-123		159.00	*	2.233E-04	1.692E+01	Half-Life too short		
		528.96		1.485E-01	1.692E+01	Half-Life too short		
TE-123M		159.00	*	3.990E-03	4.560E-02	7.464E-02	3.939E-03	0.053
I-124		602.71	*	-1.724E-01	5.540E-01	7.545E-01	4.135E-02	-0.229
		722.78		-4.370E+00	3.272E+00	4.706E+00	2.835E-01	-0.929
		1325.50		3.707E+01	2.800E+01	4.684E+01	3.402E+00	0.791
		1376.25		8.839E+00	1.341E+01	2.428E+01	1.774E+00	0.364
		1509.49		3.861E+00	6.616E+00	1.202E+01	8.528E-01	0.321
		1691.02		9.546E-01	1.767E+00	3.298E+00	2.153E-01	0.289
SB-124		602.71		-2.731E-02	8.774E-02	1.195E-01	6.551E-03	-0.229
		645.85		4.517E-01	9.869E-01	1.653E+00	9.981E-02	0.273
		709.31		-4.133E-01	5.119E+00	8.198E+00	4.769E-01	-0.050
		713.82		2.822E+00	3.081E+00	5.307E+00	5.445E-01	0.532
		722.78		-1.003E+00	7.516E-01	1.080E+00	6.795E-02	-0.929
		968.20		4.338E+00	6.322E+00	1.088E+01	9.224E-01	0.399
		1045.16		1.593E+00	5.793E+00	9.747E+00	7.399E-01	0.163
		1325.50		9.090E+00	6.866E+00	1.148E+01	8.342E-01	0.791
		1368.21		4.691E-02	2.235E+00	3.640E+00	4.616E-01	0.013

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		1436.60		2.411E-01	3.706E+00	6.095E+00	4.407E-01	0.040
		1691.02	*	5.170E-02	9.570E-02	1.786E-01	1.245E-02	0.289
SB-125		427.89	*	7.273E-02	2.033E-01	3.429E-01	2.086E-02	0.212
		463.38		3.532E-01	6.254E-01	1.061E+00	7.232E-02	0.333
		600.56		4.106E-02	3.719E-01	6.098E-01	3.929E-02	0.067
		635.90		-2.121E-01	5.679E-01	8.948E-01	5.690E-02	-0.237
TE-125M		109.28	*	1.434E+00	1.411E+01	2.338E+01	2.082E+00	0.061
I-126		388.63		-8.302E-02	3.103E-01	5.088E-01	2.942E-02	-0.163
		666.33	*	2.338E-01	2.962E-01	4.484E-01	2.321E-02	0.521
		753.82		1.440E-02	2.247E+00	3.613E+00	2.356E-01	0.004
SB-126		223.80		1.177E+00	5.324E+00	8.658E+00	4.781E-01	0.136
		278.60		-8.492E-01	3.064E+00	5.099E+00	2.967E-01	-0.167
		296.50		2.879E+00	2.283E+00	3.577E+00	2.100E-01	0.805
		414.70		-3.222E-02	1.137E-01	1.856E-01	1.080E-02	-0.174
		415.30		-1.290E-01	9.430E+00	1.562E+01	9.094E-01	-0.008
		555.20		2.156E+00	5.582E+00	9.370E+00	5.330E-01	0.230
		573.80		-5.269E-01	1.543E+00	2.301E+00	1.293E-01	-0.229
		593.00		1.164E-01	1.273E+00	2.087E+00	1.154E-01	0.056
		656.30		5.971E+00	5.929E+00	9.100E+00	4.684E-01	0.656
		666.33		9.627E-02	1.219E-01	1.846E-01	9.554E-03	0.521
		675.00		3.512E-01	3.004E+00	4.899E+00	2.597E-01	0.072
		695.00		4.318E-02	1.074E-01	1.794E-01	1.004E-02	0.241
		697.00		-1.047E-01	3.721E-01	5.868E-01	3.303E-02	-0.178
		720.50	*	-6.874E-02	2.031E-01	3.179E-01	1.904E-02	-0.216
		856.80		3.204E-01	7.928E-01	1.357E+00	1.129E-01	0.236
		989.30		1.943E-02	2.283E+00	3.782E+00	3.123E-01	0.005
		1034.80		2.911E-02	1.516E+01	2.503E+01	1.933E+00	0.001
		1213.00		1.356E+00	4.370E+00	7.428E+00	4.494E-01	0.183
SB-127		61.10		9.695E+02	1.132E+02	1.340E+02	1.284E+01	7.237
		252.40		1.941E+00	2.590E+00	4.115E+00	1.692E+00	0.472
		290.80		-4.788E+00	1.384E+01	1.980E+01	1.410E+00	-0.242
		411.60		2.951E+00	8.098E+00	1.367E+01	1.798E+00	0.216
		444.90		-2.828E+00	6.966E+00	1.127E+01	1.028E+00	-0.251
		473.00		-2.694E-01	1.213E+00	1.973E+00	1.888E-01	-0.137
		543.00		6.059E+00	1.062E+01	1.800E+01	2.067E+00	0.337
		603.60		-1.641E+00	8.900E+00	1.228E+01	1.087E+00	-0.134
		685.20	*	-1.481E-02	8.267E-01	1.334E+00	9.538E-02	-0.011
		698.50		-1.605E+00	9.656E+00	1.538E+01	2.028E+00	-0.104
		722.20		-2.251E+01	1.986E+01	2.898E+01	2.102E+00	-0.777
		783.80		-1.109E+00	2.371E+00	3.844E+00	3.753E-01	-0.289
XE-127	+	57.60		2.112E+01	7.341E+00	4.525E+01	3.964E+00	0.467
		145.22		4.156E-01	9.901E-01	1.647E+00	8.884E-02	0.252
		172.10		-9.415E-02	1.846E-01	2.929E-01	1.504E-02	-0.321
		202.84	*	4.058E-02	7.156E-02	1.187E-01	6.371E-03	0.342
		374.96		-4.914E-02	3.469E-01	5.732E-01	3.344E-02	-0.086
I-131		80.18		-6.214E+00	5.457E+00	7.503E+00	6.893E-01	-0.828
		284.30		1.061E+00	1.640E+00	2.842E+00	1.828E-01	0.374
		364.48	*	-8.749E-02	1.296E-01	2.079E-01	1.348E-02	-0.421
		636.97		-7.780E-01	1.886E+00	2.963E+00	1.772E-01	-0.263

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		722.89		-1.155E+01	8.867E+00	1.279E+01	7.744E-01	-0.903
TE-132		49.72		-1.214E+01	1.458E+01	2.379E+01	2.189E+00	-0.510
		111.76		2.730E+00	1.240E+01	2.063E+01	1.578E+00	0.132
		116.30		3.957E+00	1.295E+01	1.905E+01	1.398E+00	0.208
		228.16	*	1.482E-02	3.181E-01	5.127E-01	6.766E-02	0.029
BA-133		53.15		8.036E-01	1.096E+01	1.787E+01	1.576E+00	0.045
		79.62		-1.512E+00	2.671E+00	3.789E+00	5.882E-01	-0.399
		81.00		-2.619E-01	2.245E-01	2.808E-01	4.553E-02	-0.933
		276.40		3.645E-01	6.942E-01	1.136E+00	1.474E-01	0.321
		302.84		1.890E-02	2.740E-01	4.620E-01	5.405E-02	0.041
		356.01	*	4.141E-03	9.788E-02	1.425E-01	1.654E-02	0.029
		383.85		1.008E-01	6.484E-01	1.087E+00	1.182E-01	0.093
I-133		510.53		7.098E-03	6.484E-01	Half-Life too short		
		529.87	*	3.405E-05	6.484E-01	Half-Life too short		
		706.58		-3.505E-03	6.484E-01	Half-Life too short		
		856.28		-1.118E-03	6.484E-01	Half-Life too short		
		875.33		-7.817E-04	6.484E-01	Half-Life too short		
		1236.41		3.302E-03	6.484E-01	Half-Life too short		
		1298.22		-1.357E-03	6.484E-01	Half-Life too short		
CS-134		475.35		-3.400E+00	4.316E+00	6.776E+00	3.966E-01	-0.502
		563.23		3.035E-01	7.186E-01	1.208E+00	6.985E-02	0.251
		569.32		2.096E-01	3.857E-01	6.535E-01	3.799E-02	0.321
		604.70		-2.379E-02	8.240E-02	1.125E-01	6.195E-03	-0.211
		795.84	*	1.120E-01	9.563E-02	1.726E-01	1.260E-02	0.649
		801.93		-4.787E-01	8.071E-01	1.291E+00	9.541E-02	-0.371
		1038.57		-8.131E+00	9.655E+00	1.488E+01	1.143E+00	-0.546
		1167.94		6.492E+01	9.729E+00	1.894E+01	1.086E+00	3.428
		1365.15		1.003E+00	1.737E+00	3.100E+00	2.411E-01	0.324
CS-135		268.24	*	2.878E-01	3.002E-01	5.020E-01	3.835E-02	0.573
I-135		288.45		-4.214E+03	3.002E-01	Half-Life too short		
		417.63		-2.197E+03	3.002E-01	Half-Life too short		
		546.56		-5.658E+02	3.002E-01	Half-Life too short		
		836.80		5.334E+02	3.002E-01	Half-Life too short		
		1038.76		-3.111E+03	3.002E-01	Half-Life too short		
		1124.00		-5.340E+03	3.002E-01	Half-Life too short		
		1131.51		-1.252E+03	3.002E-01	Half-Life too short		
		1260.41	*	3.058E+02	3.002E-01	Half-Life too short		
		1457.56		1.708E+03	3.002E-01	Half-Life too short		
		1678.03		-8.612E+01	3.002E-01	Half-Life too short		
		1706.46		3.302E+03	3.002E-01	Half-Life too short		
		1791.20		-1.698E+02	3.002E-01	Half-Life too short		
CS-136		66.91		-5.596E-02	9.920E-01	1.655E+00	2.561E-01	-0.034
		86.29		2.076E+01	3.508E+00	3.972E+00	5.378E-01	5.227
		153.22		5.380E-01	7.799E-01	1.310E+00	8.911E-02	0.411
		163.89		4.562E-01	1.267E+00	2.097E+00	1.408E-01	0.218
		176.55		1.350E-01	4.576E-01	7.531E-01	4.484E-02	0.179
		273.65		-6.916E-01	6.266E-01	9.386E-01	6.201E-02	-0.737
		340.57		4.803E-03	1.921E-01	2.801E-01	1.753E-02	0.017
		818.51		1.683E-02	1.239E-01	2.094E-01	1.597E-02	0.080

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		1048.07	*	-9.101E-02	1.968E-01	3.135E-01	2.497E-02	-0.290
		1235.34		-6.409E-03	5.397E-01	8.800E-01	9.039E-02	-0.007
CE-139		165.85	*	2.467E-02	4.879E-02	8.122E-02	4.141E-03	0.304
BA-140		162.64		-3.935E-01	8.939E-01	1.426E+00	8.478E-02	-0.276
		304.84		4.821E-02	1.696E+00	2.854E+00	7.795E-01	0.017
		423.70		-1.330E+00	2.953E+00	4.720E+00	1.500E+00	-0.282
		537.32	*	-6.033E-02	3.592E-01	5.799E-01	1.885E-01	-0.104
LA-140		328.77		1.874E-02	3.865E-01	6.490E-01	4.280E-02	0.029
		432.53		-1.652E+00	3.290E+00	5.280E+00	3.404E-01	-0.313
		487.03		2.815E-02	2.159E-01	3.579E-01	2.364E-02	0.079
		751.79		3.764E-01	2.471E+00	4.021E+00	3.085E-01	0.094
		815.85		-2.722E-01	5.266E-01	8.490E-01	7.378E-02	-0.321
		867.82		1.850E-01	2.350E+00	3.941E+00	3.542E-01	0.047
		919.63		-1.746E+00	5.436E+00	8.851E+00	9.648E-01	-0.197
		925.24		1.013E+00	2.230E+00	3.808E+00	3.582E-01	0.266
		1596.49	*	-5.207E-02	8.382E-02	1.216E-01	8.340E-03	-0.428
CE-141		145.44	*	2.107E-02	8.796E-02	1.454E-01	8.198E-03	0.145
CE-144		80.11		-4.836E+00	4.333E+00	5.966E+00	5.469E-01	-0.811
		133.54	*	-1.552E-01	3.391E-01	5.385E-01	7.605E-02	-0.288
PM-144		476.78		-6.946E-02	1.506E-01	2.413E-01	1.685E-02	-0.288
		618.01		-2.253E-02	6.617E-02	1.048E-01	6.042E-03	-0.215
		696.49	*	-3.272E-02	6.900E-02	1.071E-01	6.020E-03	-0.306
		778.57		4.076E+00	5.013E+00	8.852E+00	6.139E-01	0.460
PR-144		696.49	*	-2.210E+00	4.660E+00	7.231E+00	4.064E-01	-0.306
		1489.15		-2.133E+00	1.696E+01	2.661E+01	1.899E+00	-0.080
PM-146		453.90	*	2.767E-02	9.925E-02	1.663E-01	1.440E-02	0.166
		633.02		-1.199E-02	2.896E+00	4.697E+00	1.726E+00	-0.003
		735.90		-1.024E-01	2.902E-01	4.497E-01	1.258E-01	-0.228
		747.13		-1.263E-01	1.931E-01	2.920E-01	3.738E-02	-0.433
ND-147		91.11		3.151E-01	4.385E-01	5.084E-01	4.998E-02	0.620
		319.41		-1.008E+00	4.132E+00	6.843E+00	4.042E-01	-0.147
		439.89		8.515E+00	8.989E+00	1.556E+01	9.108E-01	0.547
		531.02	*	1.029E-01	7.895E-01	1.304E+00	1.761E-01	0.079
PM-149		285.90	*	2.356E+01	2.302E+01	4.016E+01	5.693E+00	0.587
EU-152	+	121.78		6.699E-01	2.111E-01	2.723E-01	2.094E-02	2.460
		244.69		5.541E-01	6.366E-01	9.484E-01	5.365E-02	0.584
		344.27	*	-6.652E-02	2.362E-01	3.165E-01	2.098E-02	-0.210
		443.98		-2.778E-01	2.199E+00	3.609E+00	2.113E-01	-0.077
		778.89		5.172E-01	5.886E-01	1.043E+00	7.237E-02	0.496
		867.32		-3.934E-01	1.989E+00	3.272E+00	2.787E-01	-0.120
		964.01		-3.442E-01	7.971E-01	1.288E+00	1.098E-01	-0.267
		1085.78		3.393E-02	9.948E-01	1.642E+00	1.155E-01	0.021
		1112.02		-2.978E-01	7.213E-01	1.146E+00	7.615E-02	-0.260
		1407.95		1.379E-01	2.501E-01	4.457E-01	3.241E-02	0.309
GD-153		69.67		7.771E-01	3.229E+00	4.806E+00	4.199E-01	0.162
		83.37		-1.990E+00	2.955E+01	4.308E+01	4.044E+00	-0.046
		97.43	*	6.597E-02	1.383E-01	2.067E-01	1.689E-02	0.319
		103.18		-9.342E-02	1.665E-01	2.682E-01	2.004E-02	-0.348
EU-154	+	123.07		4.701E-01	1.504E-01	1.900E-01	1.793E-02	2.474

---- Non-Identified Nuclides ----

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		247.94		8.238E-01	7.094E-01	1.122E+00	1.062E-01	0.734
		591.81		-4.718E-01	1.251E+00	1.979E+00	1.903E-01	-0.238
		723.30		-3.108E-01	3.793E-01	5.712E-01	4.155E-02	-0.544
		756.87		3.765E-02	1.645E+00	2.647E+00	2.805E-01	0.014
		873.19		-4.286E-01	7.485E-01	1.196E+00	1.466E-01	-0.358
		996.32		-4.823E-01	9.704E-01	1.545E+00	2.713E-01	-0.312
		1004.76		-5.573E-01	5.691E-01	8.718E-01	9.807E-02	-0.639
		1274.45	*	-1.248E-01	1.553E-01	2.166E-01	2.150E-02	-0.576
EU-155		48.70		-7.335E+00	7.348E+00	1.191E+01	9.608E-01	-0.616
	+	60.01		4.558E+02	4.571E+01	4.702E+01	4.084E+00	9.695
	+	86.54		3.559E+00	4.961E-01	5.336E-01	5.186E-02	6.670
		105.31	*	4.958E-02	1.718E-01	2.872E-01	2.118E-02	0.173
TB-160	+	86.79		8.954E+00	1.243E+00	1.376E+00	1.330E-01	6.506
		197.04		-1.277E-01	9.386E-01	1.509E+00	8.032E-02	-0.085
		215.65		9.802E-01	1.316E+00	2.192E+00	1.198E-01	0.447
		298.57		1.175E-01	2.294E-01	3.471E-01	2.039E-02	0.339
		879.36	*	3.076E-01	3.119E-01	5.533E-01	4.839E-02	0.556
		962.29		4.219E-01	1.360E+00	2.294E+00	1.959E-01	0.184
		966.15		8.224E-01	5.098E-01	9.123E-01	7.754E-02	0.901
		1177.93		2.145E-01	6.422E-01	9.501E-01	5.405E-02	0.226
		1271.85		-9.366E-02	8.084E-01	1.291E+00	8.618E-02	-0.073
HO-166M		80.57		-8.119E-01	5.725E-01	7.736E-01	7.114E-02	-1.049
		184.41		3.096E-02	5.801E-02	9.673E-02	5.055E-03	0.320
		280.46		-2.262E-01	1.562E-01	2.442E-01	1.422E-02	-0.927
		410.95		2.004E-01	5.134E-01	8.689E-01	5.051E-02	0.231
		711.68	*	8.946E-03	1.235E-01	2.002E-01	1.172E-02	0.045
		752.31		1.188E-01	5.648E-01	9.236E-01	6.001E-02	0.129
		810.29		-2.718E-02	1.293E-01	2.133E-01	1.596E-02	-0.127
TM-171		51.35		8.332E+00	8.932E+01	1.507E+02	1.310E+01	0.055
		52.39		-2.858E+00	4.641E+01	7.787E+01	6.841E+00	-0.037
	+	59.40		2.388E+03	2.395E+02	2.602E+02	2.260E+01	9.179
		66.72	*	-4.251E+00	5.080E+01	8.466E+01	7.363E+00	-0.050
LU-176	+	88.36		7.026E+00	9.755E-01	1.063E+00	1.030E-01	6.609
		201.83		1.343E-02	5.029E-02	8.228E-02	4.411E-03	0.163
		306.84	*	-8.021E-03	4.681E-02	7.797E-02	4.594E-03	-0.103
		401.10		-4.511E+00	1.454E+01	2.376E+01	1.376E+00	-0.190
LU-177		112.95		3.679E-01	1.384E+00	2.307E+00	1.513E-01	0.159
		208.36	*	5.655E-01	9.548E-01	1.583E+00	8.564E-02	0.357
LU-177M		52.97		8.488E-01	4.825E+00	7.893E+00	6.957E-01	0.108
		54.07		1.703E+00	2.708E+00	4.113E+00	3.635E-01	0.414
		61.30		5.643E+01	6.802E+00	9.481E+00	8.236E-01	5.952
	+	121.62		3.344E+00	1.041E+00	1.358E+00	8.027E-02	2.462
		147.16		-2.095E-01	1.031E+00	1.669E+00	8.953E-02	-0.126
		171.86		-3.319E-01	8.219E-01	1.311E+00	6.732E-02	-0.253
		218.09		-1.226E+00	1.587E+00	2.462E+00	1.350E-01	-0.498
		268.79		1.023E+00	1.472E+00	2.434E+00	1.406E-01	0.421
		319.02		-9.350E-02	4.745E-01	7.877E-01	4.652E-02	-0.119
		367.43		1.451E+00	1.747E+00	3.038E+00	1.780E-01	0.478
		413.65	*	-6.097E-02	3.719E-01	6.112E-01	3.556E-02	-0.100

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HF-181	+	56.28		3.143E+00	1.092E+00	4.369E+00	3.847E-01	0.719
	+	57.53		1.802E+00	6.263E-01	3.729E+00	3.268E-01	0.483
		65.20		6.365E-01	1.563E+00	2.571E+00	2.233E-01	0.248
		133.02		-7.620E-02	9.874E-02	1.563E-01	8.773E-03	-0.488
		136.25		8.768E-02	7.052E-01	1.151E+00	6.390E-02	0.076
		345.85		1.328E-01	3.809E-01	5.680E-01	3.351E-02	0.234
		482.03	*	-5.438E-02	8.729E-02	1.383E-01	8.092E-03	-0.393
TA-182		67.75		-5.371E-02	1.902E-01	3.144E-01	2.737E-02	-0.171
		100.10		1.309E-01	2.747E-01	4.634E-01	3.627E-02	0.283
		152.43		2.536E-01	5.380E-01	8.965E-01	4.738E-02	0.283
		222.10		-4.315E-01	6.349E-01	9.884E-01	5.447E-02	-0.437
		1001.68		2.952E+00	4.912E+00	8.450E+00	6.860E-01	0.349
		1121.28		-9.709E-02	3.107E-01	4.984E-01	3.241E-02	-0.195
		1189.05		3.643E-01	4.622E-01	8.218E-01	4.768E-02	0.443
		1221.42	*	-1.683E-01	2.281E-01	3.301E-01	2.026E-02	-0.510
		1230.97		-1.680E-01	5.947E-01	9.341E-01	5.827E-02	-0.180
RE-183	+	57.98		7.474E-01	2.598E-01	1.827E+00	1.598E-01	0.409
	+	59.32		9.235E+00	9.260E-01	1.013E+00	8.806E-02	9.114
		67.20		-8.336E-02	3.347E-01	5.541E-01	4.821E-02	-0.150
		162.32	*	-1.175E-01	1.746E-01	2.754E-01	1.417E-02	-0.427
		208.81		7.981E-01	1.602E+00	2.644E+00	1.431E-01	0.302
		291.72		-6.757E-02	1.871E+00	2.738E+00	1.604E-01	-0.025
RE-184	+	57.98		2.860E+00	9.940E-01	6.991E+00	6.114E-01	0.409
	+	59.32		3.531E+01	3.541E+00	3.874E+00	3.367E-01	9.114
		67.20		-3.189E-01	1.280E+00	2.120E+00	1.844E-01	-0.150
		161.27		-3.320E-01	5.772E-01	9.149E-01	4.720E-02	-0.363
		216.55		1.694E-01	4.871E-01	7.975E-01	4.363E-02	0.212
		252.85	*	2.218E-01	4.125E-01	6.797E-01	3.876E-02	0.326
		318.01		-1.520E-01	8.136E-01	1.352E+00	7.981E-02	-0.112
		792.07		1.510E+00	2.070E+00	3.636E+00	2.604E-01	0.415
		903.28		-1.688E+00	2.856E+00	3.846E+00	3.486E-01	-0.439
		920.93		-4.500E-01	1.225E+00	1.989E+00	1.774E-01	-0.226
OS-185	+	59.72		2.561E+01	2.568E+00	2.709E+00	2.353E-01	9.452
		61.14		7.994E+00	8.883E-01	1.142E+00	9.920E-02	7.000
		69.30		2.409E-02	5.668E-01	8.353E-01	7.293E-02	0.029
		592.07		-6.465E-02	4.761E+00	7.746E+00	4.286E-01	-0.008
		646.12	*	6.873E-02	8.453E-02	1.452E-01	7.579E-03	0.473
		717.42		4.836E-01	1.719E+00	2.835E+00	1.684E-01	0.171
		874.81		-1.382E+00	1.390E+00	2.148E+00	1.860E-01	-0.644
		880.27		5.039E-01	1.793E+00	3.046E+00	2.669E-01	0.165
RE-188		155.03	*	1.247E-01	2.704E-01	4.500E-01	2.361E-02	0.277
		477.96		2.935E-01	6.533E+00	1.079E+01	6.312E-01	0.027
		633.10		7.182E-02	5.504E+00	8.939E+00	4.742E-01	0.008
W-188		63.58		-8.710E+00	9.917E+01	1.461E+02	1.269E+01	-0.060
		227.08		7.320E+00	2.228E+01	3.640E+01	2.018E+00	0.201
		290.67	*	-4.399E+00	1.449E+01	2.080E+01	1.218E+00	-0.211
IR-192	+	295.96		6.199E-01	3.509E-01	3.794E-01	2.261E-02	1.634
		308.46		7.772E-03	1.695E-01	2.853E-01	1.700E-02	0.027
		316.51	*	5.218E-02	6.083E-02	1.063E-01	6.307E-03	0.491

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		468.07		-1.345E-02	1.458E-01	2.392E-01	1.611E-02	-0.056
		604.41		-3.307E-01	1.054E+00	1.435E+00	1.605E-01	-0.230
		612.46		-2.178E-01	1.596E+00	2.211E+00	1.612E-01	-0.098
AU-195		65.12		1.245E-01	3.057E-01	5.027E-01	4.367E-02	0.248
		66.83		-1.817E-02	1.645E-01	2.739E-01	2.382E-02	-0.066
	+	75.70		1.095E+00	7.003E-01	6.464E-01	5.772E-02	1.694
		98.88	*	2.246E-01	3.505E-01	5.951E-01	4.749E-02	0.377
		129.76		-2.124E-01	4.701E+00	7.702E+00	4.378E-01	-0.028
TL-200		367.94	*	-7.823E-01	1.468E+01	2.441E+01	1.429E+00	-0.032
		579.30		7.801E+01	1.221E+02	1.835E+02	1.026E+01	0.425
		828.27		4.230E+01	1.749E+02	2.975E+02	2.321E+01	0.142
		1205.75		5.568E+00	5.973E+01	9.875E+01	5.900E+00	0.056
TL-201		68.90		-3.442E-01	2.223E+00	3.243E+00	2.829E-01	-0.106
		70.82		5.382E-01	1.209E+00	1.816E+00	1.591E-01	0.296
		80.30		-2.707E+00	2.369E+00	3.257E+00	2.989E-01	-0.831
		135.34		-2.609E+00	9.893E+00	1.588E+01	8.842E-01	-0.164
		167.43	*	-9.012E-01	2.746E+00	4.401E+00	2.246E-01	-0.205
TL-202		68.90		-9.404E-02	6.072E-01	8.859E-01	7.728E-02	-0.106
		70.82		1.466E-01	3.293E-01	4.946E-01	4.334E-02	0.296
		80.30		-7.379E-01	6.457E-01	8.876E-01	8.146E-02	-0.831
		439.56	*	1.087E-01	1.113E-01	1.929E-01	1.129E-02	0.563
HG-203		70.83		8.317E-01	1.874E+00	2.812E+00	3.851E-01	0.296
		72.87		8.003E-01	1.112E+00	1.681E+00	2.242E-01	0.476
		82.60		4.239E-01	2.392E+00	2.988E+00	4.243E-01	0.142
		279.20	*	-5.990E-02	6.720E-02	1.084E-01	6.694E-03	-0.553
BI-207		72.80		2.295E-01	3.575E-01	5.404E-01	4.765E-02	0.425
	+	74.97		6.221E-01	3.980E-01	3.431E-01	3.053E-02	1.813
		84.90		3.947E-01	3.828E-01	5.833E-01	5.545E-02	0.677
		569.67		3.946E-02	6.002E-02	1.025E-01	5.773E-03	0.385
		1063.62	*	1.966E-02	1.148E-01	1.919E-01	1.410E-02	0.102
		1770.23		-4.049E-01	7.555E-01	1.103E+00	6.826E-02	-0.367
TL-207		81.07		-5.630E-01	4.900E-01	6.220E-01	5.739E-02	-0.905
		83.78		1.443E-01	2.519E-01	3.777E-01	3.557E-02	0.382
		94.90		1.693E-01	3.997E-01	5.957E-01	5.082E-02	0.284
	+	122.32		1.597E+01	4.998E+00	6.495E+00	4.395E-01	2.458
		144.24		2.236E-01	1.092E+00	1.799E+00	1.246E-01	0.124
		154.21		5.483E-02	6.667E-01	1.092E+00	7.178E-02	0.050
		269.46		1.169E-01	3.591E-01	5.831E-01	3.525E-02	0.200
		323.87	*	5.652E-01	1.274E+00	2.176E+00	3.602E-01	0.260
	+	338.28		4.211E+00	2.822E+00	3.724E+00	3.944E-01	1.131
		445.03		-2.047E+00	5.231E+00	8.468E+00	8.722E-01	-0.242
TL-208		277.35		4.013E-01	6.844E-01	1.125E+00	1.189E-01	0.357
		510.84		5.219E-01	3.564E-01	6.525E-01	6.628E-02	0.800
	+	583.14	*	3.544E-01	1.536E-01	1.875E-01	1.217E-02	1.890
		860.37		5.796E-01	6.911E-01	1.212E+00	1.096E-01	0.478
PO-209		260.50		1.775E+01	1.879E+01	3.148E+01	1.807E+00	0.564
		262.80		-1.800E+01	5.404E+01	8.489E+01	4.883E+00	-0.212
		896.60	*	1.401E+01	1.893E+01	3.297E+01	2.992E+00	0.425
BI-210		46.50	*	7.648E+00	1.083E+01	1.865E+01	1.452E+00	0.410

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-210		46.50	*	7.648E+00	1.083E+01	1.865E+01	1.452E+00	0.410
PO-210		46.50	*	7.648E+00	1.083E+01	1.865E+01	1.252E+00	0.410
PB-211		404.84	*	4.591E-01	2.020E+00	3.358E+00	2.093E+00	0.137
		427.08		5.268E-01	4.554E+00	7.568E+00	4.678E+00	0.070
		831.96		1.281E+00	2.799E+00	4.632E+00	2.898E+00	0.276
BI-212		727.18	*	9.195E-01	6.394E-01	1.128E+00	8.950E-02	0.815
		785.46		-9.169E-01	3.638E+00	5.992E+00	4.225E-01	-0.153
		1620.62		1.954E+00	1.837E+00	3.638E+00	2.468E-01	0.537
BI-214	+	609.31	*	4.150E-01	2.447E-01	3.226E-01	2.425E-02	1.287
		1120.29		7.502E-01	6.744E-01	1.192E+00	1.108E-01	0.629
		1764.49		6.895E-01	4.159E-01	8.523E-01	5.299E-02	0.809
PO-215		81.07		-5.630E-01	4.900E-01	6.220E-01	5.739E-02	-0.905
		83.78		1.443E-01	2.519E-01	3.777E-01	3.557E-02	0.382
		94.90		1.693E-01	3.997E-01	5.957E-01	5.082E-02	0.284
	+	122.32		1.597E+01	4.998E+00	6.495E+00	4.395E-01	2.458
		144.24		2.236E-01	1.092E+00	1.799E+00	1.246E-01	0.124
		154.21		5.483E-02	6.667E-01	1.092E+00	7.178E-02	0.050
		269.46		1.169E-01	3.591E-01	5.831E-01	3.525E-02	0.200
		323.87	*	5.652E-01	1.274E+00	2.176E+00	3.602E-01	0.260
	+	338.28		4.211E+00	2.822E+00	3.724E+00	3.944E-01	1.131
		445.03		-2.047E+00	5.231E+00	8.468E+00	8.722E-01	-0.242
RN-219		271.23		2.056E-01	4.565E-01	7.456E-01	6.037E-02	0.276
		401.81	*	4.418E-01	8.662E-01	1.473E+00	2.004E-01	0.300
RN-220		549.76	*	3.964E+00	5.304E+01	8.718E+01	4.975E+00	0.045
RA-223		81.07		-5.630E-01	4.900E-01	6.220E-01	5.739E-02	-0.905
		83.78		1.443E-01	2.519E-01	3.777E-01	3.557E-02	0.382
		94.90		1.693E-01	3.997E-01	5.957E-01	5.082E-02	0.284
	+	122.32		1.597E+01	4.998E+00	6.495E+00	4.395E-01	2.458
		144.24		2.236E-01	1.092E+00	1.799E+00	1.246E-01	0.124
		154.21		5.483E-02	6.667E-01	1.092E+00	7.178E-02	0.050
		269.46		1.169E-01	3.591E-01	5.831E-01	3.525E-02	0.200
		323.87	*	5.652E-01	1.274E+00	2.176E+00	3.602E-01	0.260
	+	338.28		4.211E+00	2.822E+00	3.724E+00	3.944E-01	1.131
		445.03		-2.047E+00	5.231E+00	8.468E+00	8.722E-01	-0.242
RA-226	+	609.31	*	4.150E-01	2.447E-01	3.226E-01	2.425E-02	1.287
		1120.29		7.502E-01	6.744E-01	1.192E+00	1.108E-01	0.629
		1764.49		6.895E-01	4.159E-01	8.523E-01	5.299E-02	0.809
AC-227		79.80		-2.268E+00	3.399E+00	4.764E+00	1.035E+00	-0.476
		236.00		1.795E+00	5.689E-01	8.888E-01	9.195E-02	2.019
		256.20	*	-6.092E-01	7.351E-01	1.116E+00	1.554E-01	-0.546
		286.10		2.566E+00	3.028E+00	5.154E+00	5.969E-01	0.498
		299.80		1.004E+00	3.065E+00	4.580E+00	7.471E-01	0.219
		304.40		-1.040E+00	3.603E+00	5.965E+00	1.034E+00	-0.174
		334.20		-3.923E-01	4.687E+00	6.780E+00	1.245E+00	-0.058
TH-227		79.80		-2.268E+00	3.400E+00	4.764E+00	1.048E+00	-0.476
	+	94.00		4.021E+00	3.943E+00	5.255E+00	1.145E+00	0.765
		236.00		1.795E+00	5.612E-01	8.888E-01	7.940E-02	2.019
		256.20	*	-6.092E-01	7.374E-01	1.116E+00	1.882E-01	-0.546
		286.10		2.566E+00	3.961E+00	5.154E+00	5.163E+00	0.498

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		299.80		1.004E+00	3.065E+00	4.580E+00	7.471E-01	0.219
		304.40		-1.040E+00	3.603E+00	5.965E+00	1.034E+00	-0.174
		334.20		-3.923E-01	4.687E+00	6.780E+00	1.245E+00	-0.058
AC-228	+	338.32		1.009E+00	7.838E-01	8.917E-01	3.636E-01	1.131
	+	911.07	*	1.225E+00	4.814E-01	7.351E-01	8.482E-02	1.666
		969.11		5.045E-01	6.724E-01	1.146E+00	2.668E-01	0.440
RA-228	+	338.32		1.009E+00	7.838E-01	8.917E-01	3.636E-01	1.131
	+	911.07	*	1.225E+00	4.814E-01	7.351E-01	8.482E-02	1.666
		969.11		5.045E-01	6.724E-01	1.146E+00	2.668E-01	0.440
TH-229		85.43		1.102E+00	4.140E-01	6.521E-01	6.227E-02	1.690
	+	88.47		4.044E+00	5.615E-01	6.103E-01	5.902E-02	6.627
		100.00		1.400E-01	2.966E-01	5.002E-01	3.921E-02	0.280
		193.63	*	-2.094E-02	9.201E-01	1.488E+00	7.881E-02	-0.014
		210.97		-3.438E-01	1.386E+00	2.211E+00	1.200E-01	-0.156
TH-230	+	609.31	*	4.150E-01	2.447E-01	3.226E-01	2.425E-02	1.287
		1120.29		7.502E-01	6.744E-01	1.192E+00	1.108E-01	0.629
		1764.49		6.895E-01	4.159E-01	8.523E-01	5.299E-02	0.809
PA-231		283.67	*	2.207E+00	2.949E+00	5.110E+00	7.050E-01	0.432
		301.29		1.268E+00	1.146E+00	1.860E+00	1.953E-01	0.682
TH-231		81.07		-5.630E-01	4.900E-01	6.220E-01	5.739E-02	-0.905
		83.78		1.443E-01	2.519E-01	3.777E-01	3.557E-02	0.382
		94.90		1.693E-01	3.997E-01	5.957E-01	5.082E-02	0.284
	+	122.32		1.597E+01	4.998E+00	6.495E+00	4.395E-01	2.458
		144.24		2.236E-01	1.092E+00	1.799E+00	1.246E-01	0.124
		154.21		5.483E-02	6.667E-01	1.092E+00	7.178E-02	0.050
		269.46		1.169E-01	3.591E-01	5.831E-01	3.525E-02	0.200
		323.87	*	5.652E-01	1.274E+00	2.176E+00	3.602E-01	0.260
	+	338.28		4.211E+00	2.822E+00	3.724E+00	3.944E-01	1.131
		445.03		-2.047E+00	5.231E+00	8.468E+00	8.722E-01	-0.242
U-231		84.21		2.636E+00	3.720E+00	5.606E+00	5.299E-01	0.470
	+	92.29		1.359E+00	1.305E+00	1.915E+00	1.714E-01	0.710
		95.87	*	-4.557E-01	6.673E-01	9.300E-01	7.801E-02	-0.490
		108.00		-7.943E-01	1.149E+00	1.838E+00	1.284E-01	-0.432
TH-232	+	338.32		1.009E+00	6.699E-01	8.917E-01	5.267E-02	1.131
	+	911.07	*	1.225E+00	4.814E-01	7.351E-01	8.482E-02	1.666
		969.11		5.045E-01	6.724E-01	1.146E+00	2.668E-01	0.440
PA-233	+	75.28		1.816E+01	1.184E+01	1.043E+01	1.619E+00	1.740
	+	86.59		5.799E+01	1.679E+01	8.738E+00	2.374E+00	6.637
		300.12		5.756E-02	8.600E-01	1.265E+00	1.704E-01	0.045
		311.98	*	-3.684E-02	1.194E-01	1.973E-01	1.233E-02	-0.187
		340.50		1.179E-01	1.316E+00	1.927E+00	4.431E-01	0.061
		398.62		-4.157E+00	4.545E+00	6.960E+00	1.799E+00	-0.597
		415.76		-8.887E-02	3.599E+00	5.958E+00	1.227E+00	-0.015
PA-234		63.00		-2.155E+00	3.173E+00	4.496E+00	6.986E-01	-0.479
		94.67		1.384E-01	2.906E-01	4.339E-01	5.365E-02	0.319
		98.44		1.460E-01	1.714E-01	2.523E-01	1.405E-01	0.579
		99.86		3.500E-01	7.509E-01	1.266E+00	9.948E-02	0.276
		111.00		8.456E-02	3.064E-01	5.110E-01	5.527E-02	0.165
		131.20		-9.146E-02	1.738E-01	2.784E-01	1.573E-02	-0.329

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		152.70		3.569E-01	5.343E-01	8.936E-01	1.396E-01	0.399
		186.00		1.801E+00	2.217E+00	3.624E+00	1.104E+00	0.497
		226.40		1.695E-01	7.625E-01	1.239E+00	1.417E-01	0.137
		227.20		2.342E-01	8.016E-01	1.308E+00	7.251E-02	0.179
		248.90		9.547E-01	1.535E+00	2.520E+00	5.406E-01	0.379
	+	293.70		4.147E+00	2.428E+00	2.456E+00	3.956E-01	1.689
		369.80		-5.166E-01	1.723E+00	2.819E+00	5.875E-01	-0.183
		568.70		4.924E-01	1.955E+00	3.249E+00	1.831E-01	0.152
		569.50		3.503E-01	5.328E-01	9.097E-01	5.126E-02	0.385
		574.00		-6.085E-01	3.095E+00	4.673E+00	2.624E-01	-0.130
		699.00		-2.478E-02	1.438E+00	2.317E+00	4.156E-01	-0.011
		706.10		-8.762E-01	2.160E+00	3.312E+00	1.462E+00	-0.265
		733.00		-3.089E-01	7.582E-01	1.173E+00	2.506E-01	-0.263
		742.81		2.198E+00	3.144E+00	4.762E+00	3.189E+00	0.462
		796.30		1.433E+00	1.931E+00	3.338E+00	8.893E-01	0.429
		805.60		1.552E+00	2.105E+00	3.627E+00	1.100E+00	0.428
		819.60		1.169E+00	2.980E+00	5.062E+00	1.914E+00	0.231
		826.30		-1.605E+00	2.034E+00	2.995E+00	1.335E+00	-0.536
		831.60		3.566E-01	1.376E+00	2.337E+00	6.924E-01	0.153
		876.40		4.993E-02	2.052E+00	3.427E+00	3.523E+00	0.015
		880.51		-7.675E-02	6.940E-01	1.148E+00	1.007E-01	-0.067
		883.24		-5.174E-01	7.991E-01	1.139E+00	7.663E-01	-0.454
		899.00		1.492E+00	2.165E+00	3.604E+00	1.579E+00	0.414
		925.00		6.761E-01	3.292E+00	5.540E+00	4.922E-01	0.122
		926.50		3.603E-01	5.033E-01	8.587E-01	2.178E-01	0.420
		946.00	*	1.281E-01	8.206E-01	1.375E+00	2.585E-01	0.093
		949.00		-6.689E-01	1.236E+00	1.978E+00	1.714E-01	-0.338
		980.50		4.788E-01	1.891E+00	3.186E+00	2.661E-01	0.150
		1394.10		3.883E-01	1.508E+00	2.540E+00	1.649E+00	0.153
PA-234M		766.42		2.436E+00	2.396E+01	3.870E+01	1.953E+01	0.063
		1001.03	*	7.458E+00	1.152E+01	1.987E+01	1.896E+00	0.375
TH-234		63.29	*	-1.388E+00	2.694E+00	3.860E+00	6.955E-01	-0.360
	+	92.38		1.041E+00	1.013E+00	1.461E+00	2.665E-01	0.712
U-234	+	609.31	*	4.150E-01	2.447E-01	3.226E-01	2.425E-02	1.287
		1120.29		7.502E-01	6.744E-01	1.192E+00	1.108E-01	0.629
		1764.49		6.895E-01	4.159E-01	8.523E-01	5.299E-02	0.809
U-235		89.95		1.538E+01	5.610E+00	4.282E+00	1.331E+00	3.591
	+	93.35		1.251E+00	1.246E+00	1.703E+00	4.781E-01	0.735
		105.00		1.764E-01	1.699E+00	2.818E+00	8.308E-01	0.063
		143.76	*	1.138E-01	3.348E-01	5.545E-01	8.967E-02	0.205
		163.35		4.933E-02	7.854E-01	1.283E+00	2.281E-01	0.038
		185.71		4.816E-02	7.977E-02	1.332E-01	6.977E-03	0.361
		205.31		-3.563E-01	9.160E-01	1.449E+00	2.586E-01	-0.246
NP-236		94.67		1.063E-01	2.203E-01	3.293E-01	2.821E-02	0.323
		98.44		1.104E-01	1.144E-01	1.907E-01	1.532E-02	0.579
		111.00		6.396E-02	2.317E-01	3.865E-01	2.598E-02	0.165
		160.31	*	-6.315E-02	1.336E-01	2.129E-01	1.101E-02	-0.297
U-238		63.29	*	-1.388E+00	2.694E+00	3.860E+00	6.955E-01	-0.360
	+	92.38		1.041E+00	9.990E-01	1.461E+00	1.306E-01	0.712

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.009E-01	2.505E-01	4.214E-01	3.327E-02	0.239
		117.00	*	-1.256E-01	3.612E-01	5.107E-01	3.187E-02	-0.246
		209.75		7.754E-01	1.351E+00	2.237E+00	1.213E-01	0.347
		228.18		1.478E-02	4.141E-01	6.672E-01	3.705E-02	0.022
		277.60		8.217E-02	3.350E-01	5.415E-01	3.148E-02	0.152
		334.30		-1.293E-01	2.660E+00	3.860E+00	2.280E-01	-0.034
CM-243		99.55		1.038E-01	2.576E-01	4.334E-01	3.422E-02	0.239
		103.76	*	2.870E-02	1.531E-01	2.552E-01	1.891E-02	0.112
		117.00		-1.292E-01	3.715E-01	5.251E-01	3.278E-02	-0.246
		209.75		7.641E-01	1.331E+00	2.205E+00	1.195E-01	0.347
		228.18		1.493E-02	4.183E-01	6.739E-01	3.742E-02	0.022
		277.60		8.281E-02	3.376E-01	5.457E-01	3.173E-02	0.152
AM-246		798.80		-2.857E-01	2.972E-01	4.621E-01	3.364E-02	-0.618
		1036.00		-4.149E-01	7.470E-01	1.180E+00	9.100E-02	-0.351
		1062.04		1.028E-01	4.995E-01	8.376E-01	6.172E-02	0.123
		1078.86	*	1.478E-01	3.533E-01	5.996E-01	4.279E-02	0.246
CM-247		278.00		1.512E-01	1.323E+00	2.244E+00	1.305E-01	0.067
		287.40		-1.330E-01	2.589E+00	3.963E+00	2.317E-01	-0.034
		402.60	*	8.579E-02	7.662E-02	1.344E-01	7.792E-03	0.638
CF-249		252.85		8.547E-01	1.590E+00	2.619E+00	1.494E-01	0.326
		333.44		-7.313E-02	3.396E-01	4.860E-01	2.872E-02	-0.150
		387.95	*	6.900E-03	8.467E-02	1.414E-01	8.182E-03	0.049
CF-251		176.60	*	6.121E-02	2.220E-01	3.650E-01	1.886E-02	0.168
		227.00		2.294E-01	7.162E-01	1.170E+00	6.485E-02	0.196
		285.00		3.008E+00	3.343E+00	5.854E+00	3.418E-01	0.514
ANH-511		511.00	*	1.122E-01	7.641E-02	1.409E-01	8.183E-03	0.796

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041819 *
* Acquisition date : 23-FEB-2010 15:23:08 Detector SN#    :            *
* Detector ID        : GAM23               Sensitivity     : 5.000     *
* Geometry           : CAN                 Energy tolerance: 1.500     *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000    *
* Elapsed real time:    0 01:00:01.56      Half life ratio :  8.000    *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date        : 15-FEB-2010 00:00:00 Nuclide Library : SOLID    *
* Sample ID          : G1202041819          Analyst initials: MXR1     *
* Batch Number       : 952641               Sample Quantity : 1.5544E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000 *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
* Standard Weight  :   0.00000                                          *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
*************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	8.922E-01	5.283E-01	6.460E-01	0.000E+00
CO-57	2.272E-01	6.930E-02	7.414E-02	0.000E+00
CO-60	5.819E+00	5.427E-01	1.083E-01	0.000E+00
CD-109	2.985E+01	4.061E+00	2.593E+00	0.000E+00
SN-126	2.962E+00	4.031E-01	2.589E-01	0.000E+00
BA-137M	5.046E+00	3.600E-01	1.322E-01	0.000E+00
CS-137	5.334E+00	3.815E-01	1.398E-01	0.000E+00
CE-143	3.111E+01	1.828E+01	1.567E+01	0.000E+00
W-181	2.650E-01	6.378E-01	1.171E+00	0.000E+00
BI-211	2.171E+00	9.754E-01	7.160E-01	0.000E+00
PB-212	1.136E+00	1.643E-01	1.705E-01	0.000E+00
PO-212	1.136E+00	1.643E-01	1.705E-01	0.000E+00
PB-214	7.552E-01	3.415E-01	2.496E-01	0.000E+00
PO-214	7.552E-01	3.415E-01	2.496E-01	0.000E+00
PO-216	1.136E+00	1.643E-01	1.705E-01	0.000E+00
PO-218	7.552E-01	3.415E-01	2.496E-01	0.000E+00
RA-224	3.725E+00	2.099E+00	1.940E+00	0.000E+00
TH-228	1.146E+00	1.658E-01	1.720E-01	0.000E+00
NP-237	8.699E+00	2.120E+00	7.857E-01	0.000E+00
AM-241	1.405E+01	1.455E+00	6.637E-01	0.000E+00
AM-243	3.467E-01	2.174E-01	1.758E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.711E-02	6.498E-01	1.133E+00	0.000E+00	NOT IDENT.
NA-22	-4.373E-02	5.432E-02	7.872E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.368E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.192E-02	3.774E-02	6.925E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.406E-02	1.293E-01	0.000E+00	NOT IDENT.
SC-46	9.556E-02	9.388E-02	1.730E-01	0.000E+00	NOT IDENT.

V-48	1.116E-01	1.351E-01	2.451E-01	0.000E+00	NOT IDENT.
CR-51	-7.674E-01	5.925E-01	9.914E-01	0.000E+00	NOT IDENT.
MN-52	1.738E-02	1.191E-01	2.051E-01	0.000E+00	NOT IDENT.
MN-54	-1.503E-02	7.846E-02	1.353E-01	0.000E+00	NOT IDENT.
CO-56	-2.943E-03	8.322E-02	1.449E-01	0.000E+00	NOT IDENT.
CO-58	-1.195E-02	7.771E-02	1.346E-01	0.000E+00	NOT IDENT.
FE-59	5.702E-03	1.883E-01	3.221E-01	0.000E+00	NOT IDENT.
ZN-65	-1.855E-02	1.996E-01	3.379E-01	0.000E+00	NOT IDENT.
GE-68	1.479E+00	2.896E+00	5.136E+00	0.000E+00	NOT IDENT.
AS-73	6.903E-01	2.418E+00	4.275E+00	0.000E+00	NOT IDENT.
AS-74	-1.625E-02	1.418E-01	2.416E-01	0.000E+00	NOT IDENT.
SE-75	3.792E-02	8.288E-02	1.460E-01	0.000E+00	FAIL ABUN
BR-77	-2.474E+00	3.336E+00	5.509E+00	0.000E+00	FAIL ABUN
SR-82	-4.211E-01	6.950E-01	1.172E+00	0.000E+00	NOT IDENT.
RB-83	-1.075E-01	1.389E-01	2.289E-01	0.000E+00	NOT IDENT.
RB-84	-1.385E-01	1.481E-01	2.402E-01	0.000E+00	NOT IDENT.
KR-85	-3.378E+01	1.686E+01	2.595E+01	0.000E+00	NOT IDENT.
SR-85	-1.618E-01	8.074E-02	1.243E-01	0.000E+00	NOT IDENT.
RB-86	8.857E-01	1.476E+00	2.633E+00	0.000E+00	NOT IDENT.
Y-88	-1.116E-02	4.032E-02	6.261E-02	0.000E+00	NOT IDENT.
ZR-88	-1.056E-03	6.070E-02	1.075E-01	0.000E+00	NOT IDENT.
Y-91	9.929E+00	2.459E+01	4.359E+01	0.000E+00	NOT IDENT.
NB-94	4.828E-02	6.659E-02	1.189E-01	0.000E+00	NOT IDENT.
NB-95	1.222E-02	8.132E-02	1.383E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.524E-01	4.242E-01	0.000E+00	NOT IDENT.
ZR-95	2.749E-02	1.364E-01	2.334E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.508E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	6.842E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-7.754E-01	4.486E+00	7.454E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.013E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.163E-02	5.723E-02	9.706E-02	0.000E+00	NOT IDENT.
RH-102	-5.602E-02	6.586E-02	1.095E-01	0.000E+00	NOT IDENT.
RU-103	3.528E-02	8.015E-02	1.428E-01	0.000E+00	NOT IDENT.
RH-106	1.440E-01	6.477E-01	1.126E+00	0.000E+00	NOT IDENT.
RU-106	1.440E-01	6.476E-01	1.126E+00	0.000E+00	NOT IDENT.
AG-108M	-1.794E-02	7.360E-02	1.279E-01	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.636E-01	3.118E-01	0.000E+00	NOT IDENT.
IN-111	3.481E-01	4.224E-01	6.758E-01	0.000E+00	NOT IDENT.
IN-113M	-5.247E-02	9.245E-02	1.592E-01	0.000E+00	NOT IDENT.
SN-113	-5.247E-02	9.245E-02	1.592E-01	0.000E+00	NOT IDENT.
IN-114M	-1.958E-01	3.002E-01	5.131E-01	0.000E+00	NOT IDENT.
CD-115	1.666E-01	3.044E+00	5.296E+00	0.000E+00	NOT IDENT.
SN-117M	3.207E-02	6.380E-02	1.161E-01	0.000E+00	NOT IDENT.
SB-122	-5.240E-02	7.865E-01	1.351E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.501E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	3.990E-03	4.469E-02	7.986E-02	0.000E+00	NOT IDENT.
I-124	-1.724E-01	5.429E-01	7.797E-01	0.000E+00	NOT IDENT.
SB-124	5.170E-02	9.378E-02	1.794E-01	0.000E+00	NOT IDENT.
SB-125	7.273E-02	1.992E-01	3.576E-01	0.000E+00	NOT IDENT.
TE-125M	1.434E+00	1.383E+01	2.525E+01	0.000E+00	NOT IDENT.
I-126	2.338E-01	2.902E-01	4.622E-01	0.000E+00	NOT IDENT.
SB-126	-6.874E-02	1.991E-01	3.270E-01	0.000E+00	NOT IDENT.
SB-127	-1.481E-02	8.102E-01	1.373E+00	0.000E+00	NOT IDENT.
XE-127	4.058E-02	7.013E-02	1.262E-01	0.000E+00	FAIL ABUN
I-131	-8.749E-02	1.270E-01	2.177E-01	0.000E+00	NOT IDENT.
TE-132	1.482E-02	3.117E-01	5.435E-01	0.000E+00	NOT IDENT.
BA-133	4.141E-03	9.593E-02	1.494E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.963E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.120E-01	9.371E-02	1.770E-01	0.000E+00	NOT IDENT.
CS-135	2.878E-01	2.942E-01	5.300E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.018E+08	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.101E-02	1.929E-01	3.192E-01	0.000E+00	NOT IDENT.
CE-139	2.467E-02	4.781E-02	8.681E-02	0.000E+00	NOT IDENT.
BA-140	-6.033E-02	3.520E-01	6.012E-01	0.000E+00	NOT IDENT.
LA-140	-5.207E-02	8.215E-02	1.223E-01	0.000E+00	NOT IDENT.
CE-141	2.107E-02	8.620E-02	1.559E-01	0.000E+00	NOT IDENT.
CE-144	-1.552E-01	3.323E-01	5.787E-01	0.000E+00	NOT IDENT.
PM-144	-3.272E-02	6.762E-02	1.102E-01	0.000E+00	NOT IDENT.
PR-144	-2.210E+00	4.566E+00	7.444E+00	0.000E+00	NOT IDENT.
PM-146	2.767E-02	9.726E-02	1.731E-01	0.000E+00	NOT IDENT.
ND-147	1.029E-01	7.737E-01	1.352E+00	0.000E+00	NOT IDENT.
PM-149	2.356E+01	2.256E+01	4.233E+01	0.000E+00	NOT IDENT.
EU-152	-6.652E-02	2.314E-01	3.320E-01	0.000E+00	FAIL ABUN
GD-153	6.597E-02	1.355E-01	2.239E-01	0.000E+00	NOT IDENT.
EU-154	-1.248E-01	1.522E-01	2.193E-01	0.000E+00	FAIL ABUN
EU-155	4.958E-02	1.683E-01	3.105E-01	0.000E+00	FAIL ABUN
TB-160	3.076E-01	3.057E-01	5.660E-01	0.000E+00	FAIL ABUN
HO-166M	8.946E-03	1.210E-01	2.060E-01	0.000E+00	NOT IDENT.

TM-171	-4.251E+00	4.978E+01	9.254E+01	0.000E+00	FAIL ABUN
LU-176	-8.021E-03	4.588E-02	8.204E-02	0.000E+00	FAIL ABUN
LU-177	5.655E-01	9.357E-01	1.682E+00	0.000E+00	NOT IDENT.
LU-177M	-6.097E-02	3.644E-01	6.381E-01	0.000E+00	FAIL ABUN
HF-181	-5.438E-02	8.555E-02	1.438E-01	0.000E+00	FAIL ABUN
TA-182	-1.683E-01	2.236E-01	3.346E-01	0.000E+00	NOT IDENT.
RE-183	-1.175E-01	1.711E-01	2.945E-01	0.000E+00	FAIL ABUN
RE-184	2.218E-01	4.042E-01	7.187E-01	0.000E+00	FAIL ABUN
OS-185	6.873E-02	8.284E-02	1.498E-01	0.000E+00	FAIL ABUN
RE-188	1.247E-01	2.650E-01	4.818E-01	0.000E+00	NOT IDENT.
W-188	-4.399E+00	1.420E+01	2.192E+01	0.000E+00	NOT IDENT.
IR-192	5.218E-02	5.961E-02	1.118E-01	0.000E+00	FAIL ABUN
AU-195	2.246E-01	3.435E-01	6.443E-01	0.000E+00	FAIL ABUN
TL-200	-7.823E-01	1.439E+01	2.556E+01	0.000E+00	NOT IDENT.
TL-201	-9.012E-01	2.691E+00	4.703E+00	0.000E+00	NOT IDENT.
TL-202	1.087E-01	1.090E-01	2.011E-01	0.000E+00	NOT IDENT.
HG-203	-5.990E-02	6.585E-02	1.143E-01	0.000E+00	NOT IDENT.
BI-207	1.966E-02	1.125E-01	1.953E-01	0.000E+00	FAIL ABUN
TL-207	5.652E-01	1.248E+00	2.286E+00	0.000E+00	FAIL ABUN
TL-208	0.000E+00	1.506E-01	1.940E-01	0.000E+00	FAIL ABUN
PO-209	1.401E+01	1.855E+01	3.371E+01	0.000E+00	NOT IDENT.
BI-210	7.648E+00	1.061E+01	2.057E+01	0.000E+00	NOT IDENT.
PB-210	7.648E+00	1.061E+01	2.057E+01	0.000E+00	NOT IDENT.
PO-210	7.648E+00	1.061E+01	2.057E+01	0.000E+00	NOT IDENT.
PB-211	4.591E-01	1.979E+00	3.508E+00	0.000E+00	NOT IDENT.
BI-212	9.195E-01	6.266E-01	1.159E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	2.398E-01	3.333E-01	0.000E+00	FAIL ABUN
PO-215	5.652E-01	1.248E+00	2.286E+00	0.000E+00	FAIL ABUN
RN-219	4.418E-01	8.489E-01	1.539E+00	0.000E+00	NOT IDENT.
RN-220	3.964E+00	5.198E+01	9.032E+01	0.000E+00	NOT IDENT.
RA-223	5.652E-01	1.248E+00	2.286E+00	0.000E+00	FAIL ABUN
RA-226	0.000E+00	2.398E-01	3.333E-01	0.000E+00	FAIL ABUN
AC-227	-6.092E-01	7.204E-01	1.179E+00	0.000E+00	NOT IDENT.
TH-227	-6.092E-01	7.226E-01	1.179E+00	0.000E+00	FAIL ABUN
AC-228	0.000E+00	4.718E-01	7.512E-01	0.000E+00	FAIL ABUN
RA-228	0.000E+00	4.718E-01	7.512E-01	0.000E+00	FAIL ABUN
TH-229	-2.094E-02	9.017E-01	1.584E+00	0.000E+00	FAIL ABUN
TH-230	0.000E+00	2.398E-01	3.333E-01	0.000E+00	FAIL ABUN
PA-231	2.207E+00	2.890E+00	5.388E+00	0.000E+00	NOT IDENT.
TH-231	5.652E-01	1.248E+00	2.286E+00	0.000E+00	FAIL ABUN
U-231	-4.557E-01	6.540E-01	1.008E+00	0.000E+00	FAIL ABUN
TH-232	0.000E+00	4.718E-01	7.512E-01	0.000E+00	FAIL ABUN
PA-233	-3.684E-02	1.170E-01	2.075E-01	0.000E+00	FAIL ABUN
PA-234	1.281E-01	8.042E-01	1.404E+00	0.000E+00	FAIL ABUN
PA-234M	7.458E+00	1.129E+01	2.025E+01	0.000E+00	NOT IDENT.
TH-234	-1.388E+00	2.640E+00	4.224E+00	0.000E+00	FAIL ABUN
U-234	0.000E+00	2.398E-01	3.333E-01	0.000E+00	FAIL ABUN
U-235	1.138E-01	3.281E-01	5.948E-01	0.000E+00	FAIL ABUN
NP-236	-6.315E-02	1.309E-01	2.278E-01	0.000E+00	NOT IDENT.
U-238	-1.388E+00	2.640E+00	4.224E+00	0.000E+00	FAIL ABUN
NP-239	-1.256E-01	3.540E-01	5.506E-01	0.000E+00	NOT IDENT.
CM-243	2.870E-02	1.501E-01	2.759E-01	0.000E+00	NOT IDENT.
AM-246	1.478E-01	3.462E-01	6.099E-01	0.000E+00	NOT IDENT.
CM-247	8.579E-02	7.508E-02	1.404E-01	0.000E+00	NOT IDENT.
CF-249	6.900E-03	8.298E-02	1.479E-01	0.000E+00	NOT IDENT.
CF-251	6.121E-02	2.175E-01	3.895E-01	0.000E+00	NOT IDENT.
ANH-511	1.122E-01	7.488E-02	1.462E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 16:25:26.94

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041819.CNF;1
Sample date       : 15-FEB-2010 00:00:00 Acquisition date : 23-FEB-2010 15:23:08
Sample ID         : G1202041819          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.56  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 952641                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	20	10.67*	9.973E-01	8.922E-01	8.922E-01	60.42
CO-57	122.06	249	85.51*	6.333E+00	2.222E-01	2.272E-01	31.12
	136.48	------	10.60	6.271E+00	------	Line Not Found	------
CO-60	1173.22	1439	100.00	1.207E+00	5.760E+00	5.778E+00	8.58
	1332.49	1294	100.00*	1.077E+00	5.801E+00	5.819E+00	9.52
CD-109	88.03	1197	3.72*	5.276E+00	2.946E+01	2.985E+01	13.88
SN-126	64.28	------	9.60	2.723E+00	------	Line Not Found	------
	86.94	1197	8.90	5.276E+00	1.231E+01	1.231E+01	42.77
	87.57	1197	37.00*	5.276E+00	2.962E+00	2.962E+00	13.88
BA-137M	661.65	1919	89.98*	2.042E+00	5.043E+00	5.046E+00	7.28
CS-137	661.65	1919	85.12*	2.042E+00	5.331E+00	5.334E+00	7.30
CE-143	57.37	89	11.80	1.838E+00	1.988E+00	1.566E+02	35.16
	231.56	------	2.00	4.736E+00	------	Line Not Found	------
	293.26	136	42.00*	3.951E+00	3.950E-01	3.111E+01	59.95
	350.59	200	3.40	3.442E+00	8.263E+00	6.508E+02	54.65
	490.36	------	2.00	2.632E+00	------	Line Not Found	------
	664.57	------	5.20	2.032E+00	------	Line Not Found	------
	721.93	------	5.10	1.888E+00	------	Line Not Found	------
W-181	56.28	89	18.70	1.838E+00	1.255E+00	1.318E+00	34.76
	57.53	89	32.60	1.838E+00	7.196E-01	7.562E-01	34.76
	65.20	------	13.80*	2.847E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	3.829E+00	------	Line Not Found	------
	351.07	200	12.94*	3.442E+00	2.171E+00	2.171E+00	45.84
PB-212	74.81	199	10.70	4.207E+00	2.138E+00	2.138E+00	64.66
	77.11	199	18.00	4.207E+00	1.271E+00	1.271E+00	63.98
	87.30	1197	8.00	5.276E+00	1.370E+01	1.370E+01	17.11
	238.63	487	44.60*	4.639E+00	1.136E+00	1.136E+00	14.76
	300.09	------	3.41	3.896E+00	------	Line Not Found	------
PO-212	74.81	199	10.70	4.207E+00	2.138E+00	2.138E+00	64.66
	77.11	199	18.00	4.207E+00	1.271E+00	1.271E+00	63.98
	87.30	1197	8.00	5.276E+00	1.370E+01	1.370E+01	17.11
	115.19	------	0.60	6.293E+00	------	Line Not Found	------

Sample ID : G1202041819 Acquisition date : 23-FEB-2010 15:23:08

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	238.63	487	44.60*	4.639E+00	1.136E+00	1.136E+00	14.76
	300.09	------	3.41	3.896E+00	------	Line Not Found	------
PB-214	74.81	199	6.21	4.207E+00	3.684E+00	3.684E+00	64.41
	77.11	199	10.50	4.207E+00	2.179E+00	2.179E+00	64.43
	87.30	1197	4.67	5.276E+00	2.347E+01	2.347E+01	15.88
	241.98	140	7.49	4.596E+00	1.964E+00	1.964E+00	57.77
	295.21	136	19.20	3.951E+00	8.640E-01	8.640E-01	56.94
	351.92	200	37.20*	3.442E+00	7.552E-01	7.552E-01	46.14
PO-214	74.81	199	6.21	4.207E+00	3.684E+00	3.684E+00	64.41
	77.11	199	10.50	4.207E+00	2.179E+00	2.179E+00	64.43
	87.30	1197	4.67	5.276E+00	2.347E+01	2.347E+01	15.88
	241.98	140	7.49	4.596E+00	1.964E+00	1.964E+00	57.77
	295.21	136	19.20	3.951E+00	8.640E-01	8.640E-01	56.94
	351.92	200	37.20*	3.442E+00	7.552E-01	7.552E-01	46.14
PO-216	74.81	199	10.70	4.207E+00	2.138E+00	2.138E+00	64.66
	77.11	199	18.00	4.207E+00	1.271E+00	1.271E+00	63.98
	87.30	1197	8.00	5.276E+00	1.370E+01	1.370E+01	17.11
	238.63	487	44.60*	4.639E+00	1.136E+00	1.136E+00	14.76
	300.09	------	3.41	3.896E+00	------	Line Not Found	------
PO-218	74.81	199	6.21	4.207E+00	3.684E+00	3.684E+00	64.41
	77.11	199	10.50	4.207E+00	2.179E+00	2.179E+00	64.43
	87.30	1197	4.67	5.276E+00	2.347E+01	2.347E+01	15.88
	241.98	140	7.49	4.596E+00	1.964E+00	1.964E+00	57.77
	295.21	136	19.20	3.951E+00	8.640E-01	8.640E-01	56.94
	351.92	200	37.20*	3.442E+00	7.552E-01	7.552E-01	46.14
RA-224	240.98	140	3.95*	4.596E+00	3.725E+00	3.725E+00	57.49
TH-228	74.81	199	10.70	4.207E+00	2.138E+00	2.157E+00	63.99
	77.11	199	18.00	4.207E+00	1.271E+00	1.282E+00	63.98
	87.30	1197	8.00	5.276E+00	1.370E+01	1.382E+01	13.88
	238.63	487	44.60*	4.639E+00	1.136E+00	1.146E+00	14.76
	300.09	------	3.41	3.896E+00	------	Line Not Found	------
NP-237	86.50	1197	12.60*	5.276E+00	8.699E+00	8.699E+00	24.87
	95.87	------	2.60	5.757E+00	------	Line Not Found	------
AM-241	59.54	2155	35.90*	2.064E+00	1.405E+01	1.405E+01	10.57
AM-243	74.67	199	66.00*	4.207E+00	3.467E-01	3.467E-01	63.98
	86.72	1197	0.34	5.276E+00	3.262E+02	3.262E+02	13.88
	117.66	------	0.55	6.314E+00	------	Line Not Found	------
	142.18	------	0.13	6.209E+00	------	Line Not Found	------

Flag: "*" = Keyline

Sample ID : G1202041819 Acquisition date : 23-FEB-2010 15:23:08

Total number of lines in spectrum 18
Number of unidentified lines 0
Number of lines tentatively identified by NID 18 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	8.922E-01	8.922E-01	5.391E-01	60.42	
CO-57	270.90D	1.02	2.222E-01	2.272E-01	0.707E-01	31.12	
CO-60	5.27Y	1.00	5.801E+00	5.819E+00	0.554E+00	9.52	
CD-109	464.00D	1.01	2.946E+01	2.985E+01	0.414E+01	13.88	
SN-126	1.00E+05Y	1.00	2.962E+00	2.962E+00	0.411E+00	13.88	
BA-137M	30.17Y	1.00	5.043E+00	5.046E+00	0.367E+00	7.28	
CS-137	30.17Y	1.00	5.331E+00	5.334E+00	0.389E+00	7.30	
CE-143	33.00H	78.8	3.950E-01	3.111E+01	1.865E+01	59.95	
W-181	120.95D	1.05	7.196E-01	7.562E-01	2.629E-01	34.76	K
BI-211	7.04E+08Y	1.00	2.171E+00	2.171E+00	0.995E+00	45.84	
PB-212	1.41E+10Y	1.00	1.136E+00	1.136E+00	0.168E+00	14.76	
PO-212	1.41E+10Y	1.00	1.136E+00	1.136E+00	0.168E+00	14.76	
PB-214	1600.00Y	1.00	7.552E-01	7.552E-01	3.484E-01	46.14	
PO-214	1600.00Y	1.00	7.552E-01	7.552E-01	3.484E-01	46.14	
PO-216	1.41E+10Y	1.00	1.136E+00	1.136E+00	0.168E+00	14.76	
PO-218	1600.00Y	1.00	7.552E-01	7.552E-01	3.484E-01	46.14	
RA-224	1.41E+10Y	1.00	3.725E+00	3.725E+00	2.142E+00	57.49	
TH-228	1.91Y	1.01	1.136E+00	1.146E+00	0.169E+00	14.76	
NP-237	2.14E+06Y	1.00	8.699E+00	8.699E+00	2.163E+00	24.87	
AM-241	432.20Y	1.00	1.405E+01	1.405E+01	0.148E+01	10.57	
AM-243	7380.00Y	1.00	3.467E-01	3.467E-01	2.218E-01	63.98	
	Total Activity :		8.663E+01	1.178E+02			

Grand Total Activity : 8.663E+01 1.178E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202041819 Acquisition date : 23-FEB-2010 15:23:08

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.80	65	283	1.24	185.59	182	8	1.81E-02	95.6	5.59E+00	T
0	336.99	85	184	1.69	673.98	669	11	2.35E-02	66.2	3.56E+00	T
0	583.21	141	152	1.84	1166.42	1157	16	3.91E-02	42.9	2.28E+00	T
0	608.72	87	141	1.26	1217.44	1212	12	2.42E-02	58.5	2.19E+00	T
0	909.96	107	80	1.67	1819.93	1814	11	2.98E-02	37.6	1.53E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 16:25:31.28

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202041819.CNF;1  *
* Acquisition date : 23-FEB-2010 15:23:08  Detector SN#    :                *
* Detector ID      : GAM23                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:01.56         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 15-FEB-2010 00:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202041819           Analyst initials: MXR1           *
* Batch Number     : 952641                Sample Quantity : 1.55440E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	8.922E-01	5.391E-01	6.406E-01	4.792E-02	1.393
CO-57	2.272E-01	7.071E-02	6.884E-02	4.058E-03	3.301
CO-60	5.819E+00	5.538E-01	1.072E-01	7.866E-03	54.309
CD-109	2.985E+01	4.144E+00	2.388E+00	2.332E-01	12.497
SN-126	2.962E+00	4.113E-01	2.385E-01	2.320E-02	12.422
BA-137M	5.046E+00	3.673E-01	1.283E-01	6.554E-03	39.334
CS-137	5.334E+00	3.893E-01	1.356E-01	6.965E-03	39.334
CE-143	3.111E+01	1.865E+01	1.488E+01	3.068E+00	2.091
W-181	7.562E-01	2.629E-01	1.070E+00	9.299E-02	0.707
BI-211	2.171E+00	9.953E-01	6.829E-01	4.450E-02	3.179
PB-212	1.136E+00	1.677E-01	1.610E-01	1.158E-02	7.057
PO-212	1.136E+00	1.677E-01	1.610E-01	1.158E-02	7.057
PB-214	7.552E-01	3.484E-01	2.381E-01	1.987E-02	3.172
PO-214	7.552E-01	3.484E-01	2.381E-01	1.987E-02	3.172
PO-216	1.136E+00	1.677E-01	1.610E-01	1.158E-02	7.057
PO-218	7.552E-01	3.484E-01	2.381E-01	1.987E-02	3.172
RA-224	3.725E+00	2.142E+00	1.832E+00	1.032E-01	2.033
TH-228	1.146E+00	1.691E-01	1.624E-01	1.168E-02	7.057

Sample ID : G1202041819 Acquisition date : 23-FEB-2010 15:23:08

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	8.699E+00	2.163E+00	7.234E-01	1.647E-01	12.025
AM-241	1.405E+01	1.485E+00	6.055E-01	5.634E-02	23.200
AM-243	3.467E-01	2.218E-01	1.613E-01	1.433E-02	2.150

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.711E-02		6.631E-01	1.089E+00	7.403E-02	-0.025
NA-22	-4.373E-02		5.543E-02	7.776E-02	5.222E-03	-0.562
NA-24	5.557E-08		3.759E-04	Half-Life too short		
AL-26	1.192E-02		3.851E-02	6.908E-02	4.152E-03	0.173
TI-44	1.574E-01		7.557E-02	1.188E-01	1.077E-02	1.325
SC-46	9.556E-02		9.580E-02	1.692E-01	1.511E-02	0.565
V-48	1.116E-01		1.378E-01	2.403E-01	1.999E-02	0.464
CR-51	-7.674E-01		6.046E-01	9.433E-01	6.185E-02	-0.814
MN-52	1.738E-02		1.215E-01	2.033E-01	1.471E-02	0.085
MN-54	-1.503E-02		8.006E-02	1.321E-01	1.046E-02	-0.114
CO-56	-2.943E-03		8.492E-02	1.415E-01	1.151E-02	-0.021
CO-58	-1.195E-02		7.930E-02	1.313E-01	9.867E-03	-0.091
FE-59	5.702E-03		1.921E-01	3.168E-01	2.440E-02	0.018
ZN-65	-1.855E-02		2.037E-01	3.325E-01	2.196E-02	-0.056
GE-68	1.479E+00		2.955E+00	5.050E+00	3.614E-01	0.293
AS-73	6.903E-01		2.467E+00	3.890E+00	3.435E-01	0.177
AS-74	-1.625E-02		1.447E-01	2.337E-01	1.289E-02	-0.070
SE-75	3.792E-02		8.457E-02	1.383E-01	8.048E-03	0.274
BR-77	-2.474E+00		3.404E+00	5.310E+00	3.074E-01	-0.466
SR-82	-4.211E-01		7.092E-01	1.141E+00	7.875E-02	-0.369
RB-83	-1.075E-01		1.418E-01	2.206E-01	1.277E-02	-0.487
RB-84	-1.385E-01		1.511E-01	2.348E-01	2.063E-02	-0.590
KR-85	-3.378E+01		1.721E+01	2.500E+01	1.451E+00	-1.351
SR-85	-1.618E-01		8.239E-02	1.197E-01	6.948E-03	-1.351
RB-86	8.857E-01		1.506E+00	2.588E+00	1.855E-01	0.342
Y-88	-1.116E-02		4.114E-02	6.249E-02	3.679E-03	-0.179
ZR-88	-1.056E-03		6.193E-02	1.028E-01	5.938E-03	-0.010
Y-91	9.929E+00		2.509E+01	4.299E+01	2.564E+00	0.231
NB-94	4.828E-02		6.795E-02	1.155E-01	6.602E-03	0.418
NB-95	1.222E-02		8.298E-02	1.347E-01	9.053E-03	0.091
NB-95M	5.286E-01		2.576E-01	4.004E-01	2.954E-02	1.320
ZR-95	2.749E-02		1.392E-01	2.272E-01	1.743E-02	0.121
NB-97	8.174E-03		4.341E-04	Half-Life too short		
ZR-97	-4.098E-03		3.491E-03	Half-Life too short		
MO-99	-7.754E-01		4.578E+00	7.253E+00	1.015E+00	-0.107
TC-99M	-6.588E+02		5.166E+02	Half-Life too short		
RH-101	-4.163E-02		5.840E-02	9.122E-02	4.863E-03	-0.456
RH-102	-5.602E-02		6.720E-02	1.053E-01	6.163E-03	-0.532
RU-103	3.528E-02		8.178E-02	1.375E-01	1.741E-02	0.257
RH-106	1.440E-01		6.610E-01	1.090E+00	1.257E-01	0.132

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RU-106	1.440E-01		6.608E-01	1.090E+00	5.859E-02	0.132
AG-108M	-1.794E-02		7.510E-02	1.227E-01	7.776E-03	-0.146
AG-110M	1.370E+00		1.669E-01	3.024E-01	1.680E-02	4.531
IN-111	3.481E-01		4.310E-01	6.386E-01	3.615E-02	0.545
IN-113M	-5.247E-02		9.434E-02	1.523E-01	9.381E-03	-0.345
SN-113	-5.247E-02		9.434E-02	1.523E-01	9.381E-03	-0.345
IN-114M	-1.958E-01		3.063E-01	4.818E-01	2.539E-02	-0.406
CD-115	1.666E-01		3.106E+00	5.107E+00	2.947E-01	0.033
SN-117M	3.207E-02		6.510E-02	1.085E-01	5.639E-03	0.296
SB-122	-5.240E-02		8.026E-01	1.305E+00	7.379E-02	-0.040
I-123	2.233E-04		1.276E-03	Half-Life too short		
TE-123M	3.990E-03		4.560E-02	7.464E-02	3.939E-03	0.053
I-124	-1.724E-01		5.540E-01	7.544E-01	4.135E-02	-0.229
SB-124	5.170E-02		9.570E-02	1.786E-01	1.245E-02	0.289
SB-125	7.273E-02		2.033E-01	3.429E-01	2.086E-02	0.212
TE-125M	1.434E+00		1.411E+01	2.338E+01	2.082E+00	0.061
I-126	2.338E-01		2.962E-01	4.484E-01	2.321E-02	0.521
SB-126	-6.874E-02		2.031E-01	3.179E-01	1.904E-02	-0.216
SB-127	-1.481E-02		8.267E-01	1.334E+00	9.538E-02	-0.011
XE-127	4.058E-02		7.156E-02	1.187E-01	6.371E-03	0.342
I-131	-8.749E-02		1.296E-01	2.079E-01	1.348E-02	-0.421
TE-132	1.482E-02		3.181E-01	5.127E-01	6.766E-02	0.029
BA-133	4.141E-03		9.788E-02	1.425E-01	1.654E-02	0.029
I-133	3.405E-05		3.552E-05	Half-Life too short		
CS-134	1.120E-01		9.563E-02	1.726E-01	1.260E-02	0.649
CS-135	2.878E-01		3.002E-01	5.020E-01	3.835E-02	0.573
I-135	3.058E+02		3.071E+02	Half-Life too short		
CS-136	-9.101E-02		1.968E-01	3.135E-01	2.497E-02	-0.290
CE-139	2.467E-02		4.879E-02	8.122E-02	4.141E-03	0.304
BA-140	-6.033E-02		3.592E-01	5.799E-01	1.885E-01	-0.104
LA-140	-5.207E-02		8.382E-02	1.216E-01	8.340E-03	-0.428
CE-141	2.107E-02		8.796E-02	1.454E-01	8.198E-03	0.145
CE-144	-1.552E-01		3.391E-01	5.385E-01	7.605E-02	-0.288
PM-144	-3.272E-02		6.900E-02	1.071E-01	6.020E-03	-0.306
PR-144	-2.210E+00		4.660E+00	7.231E+00	4.064E-01	-0.306
PM-146	2.767E-02		9.925E-02	1.663E-01	1.440E-02	0.166
ND-147	1.029E-01		7.895E-01	1.304E+00	1.761E-01	0.079
PM-149	2.356E+01		2.302E+01	4.016E+01	5.693E+00	0.587
EU-152	-6.652E-02		2.362E-01	3.165E-01	2.098E-02	-0.210
GD-153	6.597E-02		1.383E-01	2.067E-01	1.689E-02	0.319
EU-154	-1.248E-01		1.553E-01	2.166E-01	2.150E-02	-0.576
EU-155	4.958E-02		1.718E-01	2.872E-01	2.118E-02	0.173
TB-160	3.076E-01		3.119E-01	5.533E-01	4.839E-02	0.556
HO-166M	8.946E-03		1.235E-01	2.002E-01	1.172E-02	0.045
TM-171	-4.251E+00		5.080E+01	8.466E+01	7.363E+00	-0.050
LU-176	-8.021E-03		4.681E-02	7.797E-02	4.594E-03	-0.103
LU-177	5.655E-01		9.548E-01	1.583E+00	8.564E-02	0.357
LU-177M	-6.097E-02		3.719E-01	6.112E-01	3.556E-02	-0.100

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HF-181	-5.438E-02		8.729E-02	1.383E-01	8.092E-03	-0.393
TA-182	-1.683E-01		2.281E-01	3.301E-01	2.026E-02	-0.510
RE-183	-1.175E-01		1.746E-01	2.754E-01	1.417E-02	-0.427
RE-184	2.218E-01		4.125E-01	6.797E-01	3.876E-02	0.326
OS-185	6.873E-02		8.453E-02	1.452E-01	7.579E-03	0.473
RE-188	1.247E-01		2.704E-01	4.500E-01	2.361E-02	0.277
W-188	-4.399E+00		1.449E+01	2.080E+01	1.218E+00	-0.211
IR-192	5.218E-02		6.083E-02	1.063E-01	6.307E-03	0.491
AU-195	2.246E-01		3.505E-01	5.951E-01	4.749E-02	0.377
TL-200	-7.823E-01		1.468E+01	2.441E+01	1.429E+00	-0.032
TL-201	-9.012E-01		2.746E+00	4.401E+00	2.246E-01	-0.205
TL-202	1.087E-01		1.113E-01	1.929E-01	1.129E-02	0.563
HG-203	-5.990E-02		6.720E-02	1.084E-01	6.694E-03	-0.553
BI-207	1.966E-02		1.148E-01	1.919E-01	1.410E-02	0.102
TL-207	5.652E-01		1.274E+00	2.176E+00	3.602E-01	0.260
TL-208	3.544E-01	+	1.536E-01	1.875E-01	1.217E-02	1.890
PO-209	1.401E+01		1.893E+01	3.297E+01	2.992E+00	0.425
BI-210	7.648E+00		1.083E+01	1.865E+01	1.452E+00	0.410
PB-210	7.648E+00		1.083E+01	1.865E+01	1.452E+00	0.410
PO-210	7.648E+00		1.083E+01	1.865E+01	1.252E+00	0.410
PB-211	4.591E-01		2.020E+00	3.358E+00	2.093E+00	0.137
BI-212	9.195E-01		6.394E-01	1.128E+00	8.950E-02	0.815
BI-214	4.150E-01	+	2.447E-01	3.226E-01	2.425E-02	1.287
PO-215	5.652E-01		1.274E+00	2.176E+00	3.602E-01	0.260
RN-219	4.418E-01		8.662E-01	1.473E+00	2.004E-01	0.300
RN-220	3.964E+00		5.304E+01	8.718E+01	4.975E+00	0.045
RA-223	5.652E-01		1.274E+00	2.176E+00	3.602E-01	0.260
RA-226	4.150E-01	+	2.447E-01	3.226E-01	2.425E-02	1.287
AC-227	-6.092E-01		7.351E-01	1.116E+00	1.554E-01	-0.546
TH-227	-6.092E-01		7.374E-01	1.116E+00	1.882E-01	-0.546
AC-228	1.225E+00	+	4.814E-01	7.351E-01	8.482E-02	1.666
RA-228	1.225E+00	+	4.814E-01	7.351E-01	8.482E-02	1.666
TH-229	-2.094E-02		9.201E-01	1.488E+00	7.881E-02	-0.014
TH-230	4.150E-01	+	2.447E-01	3.226E-01	2.425E-02	1.287
PA-231	2.207E+00		2.949E+00	5.110E+00	7.050E-01	0.432
TH-231	5.652E-01		1.274E+00	2.176E+00	3.602E-01	0.260
U-231	-4.557E-01		6.673E-01	9.300E-01	7.801E-02	-0.490
TH-232	1.225E+00	+	4.814E-01	7.351E-01	8.482E-02	1.666
PA-233	-3.684E-02		1.194E-01	1.973E-01	1.233E-02	-0.187
PA-234	1.281E-01		8.206E-01	1.375E+00	2.585E-01	0.093
PA-234M	7.458E+00		1.152E+01	1.987E+01	1.896E+00	0.375
TH-234	-1.388E+00		2.694E+00	3.860E+00	6.955E-01	-0.360
U-234	4.150E-01	+	2.447E-01	3.226E-01	2.425E-02	1.287
U-235	1.138E-01		3.348E-01	5.545E-01	8.967E-02	0.205
NP-236	-6.315E-02		1.336E-01	2.129E-01	1.101E-02	-0.297
U-238	-1.388E+00		2.694E+00	3.860E+00	6.955E-01	-0.360
NP-239	-1.256E-01		3.612E-01	5.107E-01	3.187E-02	-0.246
CM-243	2.870E-02		1.531E-01	2.552E-01	1.891E-02	0.112

Sample ID : G1202041819 Acquisition date : 23-FEB-2010 15:23:08

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-246	1.478E-01		3.533E-01	5.996E-01	4.279E-02	0.246
CM-247	8.579E-02		7.662E-02	1.344E-01	7.792E-03	0.638
CF-249	6.900E-03		8.467E-02	1.414E-01	8.182E-03	0.049
CF-251	6.121E-02		2.220E-01	3.650E-01	1.886E-02	0.168
ANH-511	1.122E-01		7.641E-02	1.409E-01	8.183E-03	0.796

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202041819          *
* Acquisition date  : 23-FEB-2010 15:23:08 Detector SN#     :               *
* Detector ID       : GAM23                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.56      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 15-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202041819          Analyst initials: MXR1           *
* Batch Number      : 952641               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	8.922E-01	5.283E-01	3.232E-01	2.696E-01
CO-57	2.272E-01	6.930E-02	3.709E-02	3.536E-02
CO-60	5.819E+00	5.427E-01	5.421E-02	2.769E-01
CD-109	2.985E+01	4.061E+00	1.297E+00	2.072E+00
SN-126	2.962E+00	4.031E-01	1.295E-01	2.056E-01
BA-137M	5.046E+00	3.600E-01	6.616E-02	1.837E-01
CS-137	5.334E+00	3.815E-01	6.994E-02	1.947E-01
CE-143	3.111E+01	1.828E+01	7.840E+00	9.326E+00
W-181	2.650E-01	6.378E-01	5.857E-01	3.254E-01
BI-211	2.171E+00	9.754E-01	3.582E-01	4.976E-01
PB-212	1.136E+00	1.643E-01	8.530E-02	8.385E-02
PO-212	1.136E+00	1.643E-01	8.530E-02	8.385E-02
PB-214	7.552E-01	3.415E-01	1.249E-01	1.742E-01
PO-214	7.552E-01	3.415E-01	1.249E-01	1.742E-01
PO-216	1.136E+00	1.643E-01	8.530E-02	8.385E-02
PO-218	7.552E-01	3.415E-01	1.249E-01	1.742E-01
RA-224	3.725E+00	2.099E+00	9.706E-01	1.071E+00
TH-228	1.146E+00	1.658E-01	8.604E-02	8.457E-02
NP-237	8.699E+00	2.120E+00	3.931E-01	1.082E+00
AM-241	1.405E+01	1.455E+00	3.320E-01	7.425E-01
AM-243	3.467E-01	2.174E-01	8.794E-02	1.109E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.711E-02	6.498E-01	5.668E-01	3.316E-01	NOT IDENT.
NA-22	-4.373E-02	5.432E-02	3.938E-02	2.772E-02	NOT IDENT.
NA-24	5.557E-02	7.368E+02	0.000E+00	3.759E+02	SHORT HLIF
AL-26	1.192E-02	3.774E-02	3.465E-02	1.926E-02	NOT IDENT.
TI-44	1.574E-01	7.406E-02	6.470E-02	3.779E-02	NOT IDENT.
SC-46	9.556E-02	9.388E-02	8.654E-02	4.790E-02	NOT IDENT.

V-48	1.116E-01	1.351E-01	1.226E-01	6.891E-02	NOT IDENT.
CR-51	-7.674E-01	5.925E-01	4.960E-01	3.023E-01	NOT IDENT.
MN-52	1.738E-02	1.191E-01	1.026E-01	6.077E-02	NOT IDENT.
MN-54	-1.503E-02	7.846E-02	6.770E-02	4.003E-02	NOT IDENT.
CO-56	-2.943E-03	8.322E-02	7.250E-02	4.246E-02	NOT IDENT.
CO-58	-1.195E-02	7.771E-02	6.736E-02	3.965E-02	NOT IDENT.
FE-59	5.702E-03	1.883E-01	1.611E-01	9.606E-02	NOT IDENT.
ZN-65	-1.855E-02	1.996E-01	1.690E-01	1.018E-01	NOT IDENT.
GE-68	1.479E+00	2.896E+00	2.570E+00	1.478E+00	NOT IDENT.
AS-73	6.903E-01	2.418E+00	2.139E+00	1.233E+00	NOT IDENT.
AS-74	-1.625E-02	1.418E-01	1.209E-01	7.236E-02	NOT IDENT.
SE-75	3.792E-02	8.288E-02	7.305E-02	4.229E-02	FAIL ABUN
BR-77	-2.474E+00	3.336E+00	2.756E+00	1.702E+00	FAIL ABUN
SR-82	-4.211E-01	6.950E-01	5.861E-01	3.546E-01	NOT IDENT.
RB-83	-1.075E-01	1.389E-01	1.145E-01	7.088E-02	NOT IDENT.
RB-84	-1.385E-01	1.481E-01	1.202E-01	7.557E-02	NOT IDENT.
KR-85	-3.378E+01	1.686E+01	1.298E+01	8.603E+00	NOT IDENT.
SR-85	-1.618E-01	8.074E-02	6.217E-02	4.120E-02	NOT IDENT.
RB-86	8.857E-01	1.476E+00	1.317E+00	7.531E-01	NOT IDENT.
Y-88	-1.116E-02	4.032E-02	3.132E-02	2.057E-02	NOT IDENT.
ZR-88	-1.056E-03	6.070E-02	5.379E-02	3.097E-02	NOT IDENT.
Y-91	9.929E+00	2.459E+01	2.181E+01	1.255E+01	NOT IDENT.
NB-94	4.828E-02	6.659E-02	5.949E-02	3.398E-02	NOT IDENT.
NB-95	1.222E-02	8.132E-02	6.920E-02	4.149E-02	NOT IDENT.
NB-95M	5.286E-01	2.524E-01	2.122E-01	1.288E-01	NOT IDENT.
ZR-95	2.749E-02	1.364E-01	1.168E-01	6.960E-02	NOT IDENT.
NB-97	8.174E+03	8.508E+02	0.000E+00	4.341E+02	SHORT HLIF
ZR-97	-4.098E+03	6.842E+03	0.000E+00	3.491E+03	SHORT HLIF
MO-99	-7.754E-01	4.486E+00	3.729E+00	2.289E+00	NOT IDENT.
TC-99M	-6.588E+08	1.013E+09	0.000E+00	5.166E+08	SHORT HLIF
RH-101	-4.163E-02	5.723E-02	4.856E-02	2.920E-02	NOT IDENT.
RH-102	-5.602E-02	6.586E-02	5.478E-02	3.360E-02	NOT IDENT.
RU-103	3.528E-02	8.015E-02	7.146E-02	4.089E-02	NOT IDENT.
RH-106	1.440E-01	6.477E-01	5.633E-01	3.305E-01	NOT IDENT.
RU-106	1.440E-01	6.476E-01	5.633E-01	3.304E-01	NOT IDENT.
AG-108M	-1.794E-02	7.360E-02	6.398E-02	3.755E-02	NOT IDENT.
AG-110M	1.370E+00	1.636E-01	1.560E-01	8.346E-02	NOT IDENT.
IN-111	3.481E-01	4.224E-01	3.381E-01	2.155E-01	NOT IDENT.
IN-113M	-5.247E-02	9.245E-02	7.964E-02	4.717E-02	NOT IDENT.
SN-113	-5.247E-02	9.245E-02	7.964E-02	4.717E-02	NOT IDENT.
IN-114M	-1.958E-01	3.002E-01	2.567E-01	1.532E-01	NOT IDENT.
CD-115	1.666E-01	3.044E+00	2.650E+00	1.553E+00	NOT IDENT.
SN-117M	3.207E-02	6.380E-02	5.808E-02	3.255E-02	NOT IDENT.
SB-122	-5.240E-02	7.865E-01	6.757E-01	4.013E-01	NOT IDENT.
I-123	2.233E+02	2.501E+03	0.000E+00	1.276E+03	SHORT HLIF
TE-123M	3.990E-03	4.469E-02	3.995E-02	2.280E-02	NOT IDENT.
I-124	-1.724E-01	5.429E-01	3.901E-01	2.770E-01	NOT IDENT.
SB-124	5.170E-02	9.378E-02	8.974E-02	4.785E-02	NOT IDENT.
SB-125	7.273E-02	1.992E-01	1.789E-01	1.016E-01	NOT IDENT.
TE-125M	1.434E+00	1.383E+01	1.263E+01	7.054E+00	NOT IDENT.
I-126	2.338E-01	2.902E-01	2.312E-01	1.481E-01	NOT IDENT.
SB-126	-6.874E-02	1.991E-01	1.636E-01	1.016E-01	NOT IDENT.
SB-127	-1.481E-02	8.102E-01	6.871E-01	4.134E-01	NOT IDENT.
XE-127	4.058E-02	7.013E-02	6.314E-02	3.578E-02	FAIL ABUN
I-131	-8.749E-02	1.270E-01	1.089E-01	6.482E-02	NOT IDENT.
TE-132	1.482E-02	3.117E-01	2.719E-01	1.590E-01	NOT IDENT.
BA-133	4.141E-03	9.593E-02	7.473E-02	4.894E-02	NOT IDENT.
I-133	3.405E+01	6.963E+01	0.000E+00	3.552E+01	SHORT HLIF
CS-134	1.120E-01	9.371E-02	8.855E-02	4.781E-02	NOT IDENT.
CS-135	2.878E-01	2.942E-01	2.652E-01	1.501E-01	NOT IDENT.
I-135	3.058E+08	6.018E+08	0.000E+00	3.071E+08	SHORT HLIF
CS-136	-9.101E-02	1.929E-01	1.597E-01	9.839E-02	NOT IDENT.
CE-139	2.467E-02	4.781E-02	4.343E-02	2.439E-02	NOT IDENT.
BA-140	-6.033E-02	3.520E-01	3.008E-01	1.796E-01	NOT IDENT.
LA-140	-5.207E-02	8.215E-02	6.119E-02	4.191E-02	NOT IDENT.
CE-141	2.107E-02	8.620E-02	7.799E-02	4.398E-02	NOT IDENT.
CE-144	-1.552E-01	3.323E-01	2.895E-01	1.696E-01	NOT IDENT.
PM-144	-3.272E-02	6.762E-02	5.515E-02	3.450E-02	NOT IDENT.
PR-144	-2.210E+00	4.566E+00	3.724E+00	2.330E+00	NOT IDENT.
PM-146	2.767E-02	9.726E-02	8.663E-02	4.962E-02	NOT IDENT.
ND-147	1.029E-01	7.737E-01	6.766E-01	3.948E-01	NOT IDENT.
PM-149	2.356E+01	2.256E+01	2.118E+01	1.151E+01	NOT IDENT.
EU-152	-6.652E-02	2.314E-01	1.661E-01	1.181E-01	FAIL ABUN
GD-153	6.597E-02	1.355E-01	1.120E-01	6.913E-02	NOT IDENT.
EU-154	-1.248E-01	1.522E-01	1.097E-01	7.764E-02	FAIL ABUN
EU-155	4.958E-02	1.683E-01	1.553E-01	8.588E-02	FAIL ABUN
TB-160	3.076E-01	3.057E-01	2.832E-01	1.560E-01	FAIL ABUN
HO-166M	8.946E-03	1.210E-01	1.031E-01	6.174E-02	NOT IDENT.

TM-171	-4.251E+00	4.978E+01	4.630E+01	2.540E+01	FAIL ABUN
LU-176	-8.021E-03	4.588E-02	4.104E-02	2.341E-02	FAIL ABUN
LU-177	5.655E-01	9.357E-01	8.416E-01	4.774E-01	NOT IDENT.
LU-177M	-6.097E-02	3.644E-01	3.192E-01	1.859E-01	FAIL ABUN
HF-181	-5.438E-02	8.555E-02	7.196E-02	4.365E-02	FAIL ABUN
TA-182	-1.683E-01	2.236E-01	1.674E-01	1.141E-01	NOT IDENT.
RE-183	-1.175E-01	1.711E-01	1.474E-01	8.728E-02	FAIL ABUN
RE-184	2.218E-01	4.042E-01	3.596E-01	2.062E-01	FAIL ABUN
OS-185	6.873E-02	8.284E-02	7.495E-02	4.227E-02	FAIL ABUN
RE-188	1.247E-01	2.650E-01	2.411E-01	1.352E-01	NOT IDENT.
W-188	-4.399E+00	1.420E+01	1.097E+01	7.244E+00	NOT IDENT.
IR-192	5.218E-02	5.961E-02	5.592E-02	3.041E-02	FAIL ABUN
AU-195	2.246E-01	3.435E-01	3.224E-01	1.753E-01	FAIL ABUN
TL-200	-7.823E-01	1.439E+01	1.279E+01	7.341E+00	NOT IDENT.
TL-201	-9.012E-01	2.691E+00	2.353E+00	1.373E+00	NOT IDENT.
TL-202	1.087E-01	1.090E-01	1.006E-01	5.564E-02	NOT IDENT.
HG-203	-5.990E-02	6.585E-02	5.718E-02	3.360E-02	NOT IDENT.
BI-207	1.966E-02	1.125E-01	9.769E-02	5.739E-02	FAIL ABUN
TL-207	5.652E-01	1.248E+00	1.144E+00	6.370E-01	FAIL ABUN
TL-208	3.544E-01	1.506E-01	9.705E-02	7.682E-02	FAIL ABUN
PO-209	1.401E+01	1.855E+01	1.686E+01	9.464E+00	NOT IDENT.
BI-210	7.648E+00	1.061E+01	1.029E+01	5.415E+00	NOT IDENT.
PB-210	7.648E+00	1.061E+01	1.029E+01	5.415E+00	NOT IDENT.
PO-210	7.648E+00	1.061E+01	1.029E+01	5.413E+00	NOT IDENT.
PB-211	4.591E-01	1.979E+00	1.755E+00	1.010E+00	NOT IDENT.
BI-212	9.195E-01	6.266E-01	5.801E-01	3.197E-01	NOT IDENT.
BI-214	4.150E-01	2.398E-01	1.667E-01	1.223E-01	FAIL ABUN
PO-215	5.652E-01	1.248E+00	1.144E+00	6.370E-01	FAIL ABUN
RN-219	4.418E-01	8.489E-01	7.701E-01	4.331E-01	NOT IDENT.
RN-220	3.964E+00	5.198E+01	4.519E+01	2.652E+01	NOT IDENT.
RA-223	5.652E-01	1.248E+00	1.144E+00	6.370E-01	FAIL ABUN
RA-226	4.150E-01	2.398E-01	1.667E-01	1.223E-01	FAIL ABUN
AC-227	-6.092E-01	7.204E-01	5.900E-01	3.675E-01	NOT IDENT.
TH-227	-6.092E-01	7.226E-01	5.900E-01	3.687E-01	FAIL ABUN
AC-228	1.225E+00	4.718E-01	3.758E-01	2.407E-01	FAIL ABUN
RA-228	1.225E+00	4.718E-01	3.758E-01	2.407E-01	FAIL ABUN
TH-229	-2.094E-02	9.017E-01	7.925E-01	4.601E-01	FAIL ABUN
TH-230	4.150E-01	2.398E-01	1.667E-01	1.223E-01	FAIL ABUN
PA-231	2.207E+00	2.890E+00	2.695E+00	1.474E+00	NOT IDENT.
TH-231	5.652E-01	1.248E+00	1.144E+00	6.370E-01	FAIL ABUN
U-231	-4.557E-01	6.540E-01	5.041E-01	3.337E-01	FAIL ABUN
TH-232	1.225E+00	4.718E-01	3.758E-01	2.407E-01	FAIL ABUN
PA-233	-3.684E-02	1.170E-01	1.038E-01	5.971E-02	FAIL ABUN
PA-234	1.281E-01	8.042E-01	7.024E-01	4.103E-01	FAIL ABUN
PA-234M	7.458E+00	1.129E+01	1.013E+01	5.761E+00	NOT IDENT.
TH-234	-1.388E+00	2.640E+00	2.113E+00	1.347E+00	FAIL ABUN
U-234	4.150E-01	2.398E-01	1.667E-01	1.223E-01	FAIL ABUN
U-235	1.138E-01	3.281E-01	2.976E-01	1.674E-01	FAIL ABUN
NP-236	-6.315E-02	1.309E-01	1.140E-01	6.680E-02	NOT IDENT.
U-238	-1.388E+00	2.640E+00	2.113E+00	1.347E+00	FAIL ABUN
NP-239	-1.256E-01	3.540E-01	2.754E-01	1.806E-01	NOT IDENT.
CM-243	2.870E-02	1.501E-01	1.380E-01	7.657E-02	NOT IDENT.
AM-246	1.478E-01	3.462E-01	3.051E-01	1.767E-01	NOT IDENT.
CM-247	8.579E-02	7.508E-02	7.025E-02	3.831E-02	NOT IDENT.
CF-249	6.900E-03	8.298E-02	7.398E-02	4.234E-02	NOT IDENT.
CF-251	6.121E-02	2.175E-01	1.949E-01	1.110E-01	NOT IDENT.
ANH-511	1.122E-01	7.488E-02	7.317E-02	3.820E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	352.3373
46.50	352.3373
46.50	352.3373
48.70	418.1347
49.72	424.3411
51.35	410.9656
52.39	444.5614
52.97	449.0455
53.15	456.4946
53.44	443.8277
54.07	433.5558
56.28	457.1903
56.28	457.1922
57.37	491.8733
57.53	492.0007
57.53	492.0018
57.60	512.6808
57.98	512.9941
57.98	512.9941
59.32	405.3261
59.32	405.3261
59.40	405.3772
59.54	405.4668
59.72	405.5823
60.01	275.0715
61.10	291.8357
61.14	291.8538
61.30	291.9265
63.00	301.6057
63.29	301.7385
63.29	301.7385
63.58	289.9756
64.28	284.3282
65.12	297.0372
65.20	297.0724
65.20	297.0724
66.05	308.7771
66.72	328.6908
66.83	328.7458
66.91	325.0486
67.20	330.7933
67.20	330.7933
67.75	334.8001
67.85	334.8493
68.90	346.2279
68.90	346.2279
69.30	332.9309
69.67	325.6073
70.82	324.6381
70.82	324.6381
70.83	324.6434
72.80	361.7197
72.87	361.7549
72.87	361.7549
74.67	366.4379
74.81	366.5089
74.81	366.5089
74.81	366.5089
74.81	366.5089
74.81	366.5089
74.81	366.5089
74.81	366.5089
74.97	366.5888
75.28	366.7457
75.70	366.9559
77.11	367.6604
77.11	367.6604

77.11	367.6604
77.11	367.6604
77.11	367.6604
77.11	367.6604
77.11	367.6604
78.38	384.2360
79.62	421.3802
79.80	421.4799
79.80	421.4799
80.11	441.4429
80.18	441.4836
80.30	441.5526
80.30	441.5526
80.57	463.0341
81.00	459.1047
81.07	459.1470
81.07	459.1470
81.07	459.1470
81.07	459.1470
82.60	391.9775
83.37	408.1626
83.78	380.8481
83.78	380.8481
83.78	380.8481
83.78	380.8481
84.21	384.1201
84.90	382.9269
85.43	396.9795
86.29	440.3762
86.50	440.4935
86.54	440.5145
86.59	440.5426
86.72	425.2636
86.79	425.2992
86.94	425.3803
87.30	425.5731
87.30	425.5731
87.30	425.5731
87.30	425.5731
87.30	425.5731
87.30	425.5731
87.30	425.5731
87.57	425.7168
87.88	425.8824
88.03	425.9619
88.36	426.1360
88.47	426.1952
89.95	312.1397
91.11	312.5847
92.29	313.0333
92.38	255.0924
92.38	255.0924
93.35	256.9393
94.00	266.4341
94.67	272.8467
94.67	272.8484
94.90	265.1700
94.90	265.1700
94.90	265.1700
94.90	265.1700
95.87	291.8682
95.87	291.8682
96.73	262.6380
97.43	244.1894
98.44	235.8012
98.44	235.8021
98.88	242.4602
99.55	248.4962
99.55	248.4962
99.86	247.6099
100.00	247.6496
100.10	247.6797
103.18	270.0798
103.76	242.8393
105.00	253.9641
105.31	247.1858
108.00	283.3418
109.28	266.9910

111.00	267.4913
111.00	267.4913
111.76	272.6498
112.95	271.0201
115.19	255.8033
116.30	254.1172
117.00	271.7871
117.00	271.7871
117.66	254.4795
121.11	249.0040
121.62	263.5075
121.78	263.5498
122.06	263.6254
122.32	263.6949
122.32	263.6949
122.32	263.6949
122.32	263.6949
123.07	299.0825
127.23	247.3338
129.76	290.8213
131.20	279.1387
133.02	287.7071
133.54	273.7126
135.34	278.2332
136.00	273.3453
136.25	268.3481
136.48	270.4324
140.51	286.7118
140.51	0.0000
142.18	284.1023
142.65	269.9635
143.76	236.5879
144.24	242.8137
144.24	242.8137
144.24	242.8137
144.24	242.8137
145.22	239.9682
145.44	247.1660
147.16	259.8291
152.43	249.7539
152.70	238.5048
153.22	246.8427
154.21	264.5568
154.21	264.5568
154.21	264.5568
154.21	264.5568
155.03	254.4474
156.02	253.6368
158.56	234.5648
159.00	0.0000
159.00	247.0577
160.31	262.8599
161.27	262.0412
162.32	272.6414
162.64	266.4940
163.35	246.9410
163.89	240.8262
165.85	241.2253
167.43	266.5313
171.28	253.8048
171.86	268.5567
172.10	268.6096
176.55	251.7517
176.60	251.7609
181.06	255.8200
184.41	250.1635
185.71	263.0978
186.00	255.7606
190.27	297.9622
192.34	287.8134
193.63	265.7719
197.04	263.2610
198.01	275.1860
198.60	261.4340
200.40	257.5132
201.83	240.6710
202.84	225.8649
205.31	261.6645

208.36	234.3028
208.81	244.0555
209.75	242.0683
209.75	242.0683
210.97	275.6621
215.65	240.9323
216.55	250.8153
218.09	281.3916
222.10	271.3299
223.80	246.6585
226.40	243.8345
227.00	234.1343
227.08	231.9693
227.20	231.9888
228.16	229.9603
228.18	229.9635
228.18	229.9635
231.56	235.9550
235.69	243.6216
236.00	252.4377
236.00	252.4377
238.63	219.5145
238.63	219.5145
238.63	219.5145
238.63	219.5145
239.00	219.5679
240.98	219.8563
241.98	220.0012
241.98	220.0012
241.98	220.0012
244.69	167.4978
245.39	174.6301
247.94	169.3239
248.90	187.8454
249.79	247.6558
252.40	174.9787
252.85	178.3527
252.85	178.3527
254.15	0.0000
256.20	224.2479
256.20	224.2479
260.50	191.4608
260.90	183.7166
262.80	229.6377
264.65	206.4651
268.24	190.1450
268.79	196.9231
269.46	209.3164
269.46	209.3164
269.46	209.3164
269.46	209.3164
271.23	200.5802
273.65	244.6413
276.40	187.7196
277.35	175.4548
277.60	187.8546
277.60	187.8546
278.00	192.6261
278.60	202.5989
279.20	217.0853
279.53	218.0275
280.46	228.0644
281.68	204.7766
283.67	189.6639
284.30	191.5427
285.00	183.4855
285.90	179.9672
286.10	185.9159
286.10	185.9159
287.40	204.3056
288.45	0.0000
290.67	196.4917
290.80	196.5049
291.72	201.1479
293.26	196.1824
293.70	196.2325
295.21	196.4013
295.21	196.4013

295.21	196.4013
295.96	218.3203
296.50	236.5867
297.23	207.8580
298.57	203.4618
299.80	199.0479
299.80	199.0479
300.09	206.6784
300.09	206.6784
300.09	206.6784
300.09	206.6784
300.12	206.6812
301.29	172.0599
302.84	197.2608
303.76	215.6381
303.91	215.6554
304.40	202.0051
304.40	202.0051
304.84	188.3396
306.84	183.0615
308.46	174.0662
311.98	175.3250
316.51	151.8375
318.01	169.4633
319.02	174.1629
319.41	173.2781
320.08	198.2372
323.87	173.7003
323.87	173.7003
323.87	173.7003
323.87	173.7003
325.23	164.5805
328.77	178.7912
333.44	153.2333
334.20	157.9410
334.20	157.9410
334.30	157.9493
338.28	169.1438
338.28	169.1438
338.28	169.1438
338.28	169.1438
338.32	169.1460
338.32	169.1460
338.32	169.1460
340.50	181.7699
340.57	181.7747
344.27	183.0609
345.85	158.9060
350.59	183.6591
351.07	183.7045
351.92	183.7835
351.92	183.7835
351.92	183.7835
355.39	0.0000
356.01	166.0002
364.48	165.1370
366.43	137.9069
367.43	139.8647
367.94	160.6969
369.80	165.5750
374.96	156.5103
383.85	176.2423
387.95	171.8174
388.63	183.3305
391.69	195.0725
391.69	195.0725
392.90	171.2649
398.62	184.2000
400.65	197.8199
401.10	183.4551
401.81	155.6521
402.60	140.3307
404.84	169.3420
410.95	159.2073
411.60	164.0815
413.65	174.8621
414.70	173.9795
415.30	167.2601

415.76	168.2630
417.63	0.0000
418.52	166.5368
423.70	171.7799
427.08	162.3215
427.89	158.4912
432.53	176.3579
433.93	176.4662
439.47	155.3977
439.56	155.4035
439.89	156.4043
443.98	170.3934
444.90	171.4410
445.03	171.4517
445.03	171.4517
445.03	171.4517
445.03	171.4517
453.90	158.3409
463.38	158.9836
468.07	170.1817
473.00	164.5856
475.06	172.6640
475.35	166.7306
476.78	158.8848
477.59	149.0057
477.96	150.0212
482.03	161.2209
484.57	137.4795
487.03	139.6138
490.36	149.7894
492.35	136.9180
497.08	132.1740
507.63	0.0000
510.53	0.0000
510.84	131.8947
511.00	131.9027
511.85	148.0641
511.85	148.0641
513.99	225.8102
513.99	225.8102
520.41	135.4231
520.65	135.4362
527.90	120.6153
528.96	0.0000
529.64	108.5256
529.87	0.0000
531.02	113.6570
537.32	101.7236
543.00	98.8851
546.56	0.0000
549.76	102.2046
552.65	111.5228
555.20	95.2433
563.23	97.5814
563.90	109.9362
568.70	94.6908
569.32	91.6248
569.50	88.5426
569.67	88.5468
573.80	105.6956
574.00	97.9688
574.64	103.1494
578.91	86.0901
579.30	86.1023
583.14	88.9815
585.48	94.9251
591.81	101.7133
592.07	92.3810
593.00	90.3347
595.88	101.8592
600.56	110.3580
602.52	0.0000
602.71	119.8179
602.71	119.8179
603.60	123.3313
604.41	125.1035
604.70	125.1152
609.31	113.1337

609.31	113.1337
609.31	113.1337
609.31	113.1337
610.33	107.9500
612.46	116.7429
614.37	85.4370
618.01	105.7960
621.84	95.4456
621.84	95.4456
631.29	95.7566
633.02	94.7593
633.10	94.7615
634.78	95.8699
635.90	100.1211
636.97	103.3211
645.85	88.8255
646.12	80.3733
656.30	91.9648
657.75	111.4728
657.90	0.0000
661.65	109.8446
661.65	109.8446
664.57	90.4432
666.33	79.8486
666.33	79.8486
675.00	96.0886
677.61	87.6215
685.20	78.1952
692.80	95.5664
695.00	78.4411
696.49	95.6793
696.49	95.6793
697.00	90.3185
697.49	95.7098
698.33	105.4146
698.50	94.6645
699.00	89.3000
702.63	79.7072
706.10	93.8117
706.58	0.0000
706.67	99.2212
709.31	83.1134
711.68	83.1754
713.82	70.2590
717.42	76.8312
720.50	87.7355
721.93	112.6988
722.20	112.7077
722.78	122.4820
722.78	122.4820
722.89	122.4875
722.95	122.4902
723.30	112.7471
724.18	87.8364
727.18	81.4050
733.00	83.7243
735.90	75.0931
739.58	78.4441
742.81	67.6157
744.21	82.9190
747.13	90.6374
751.79	76.5471
752.31	76.5591
753.82	87.5371
755.35	73.3450
756.15	79.9329
756.87	84.3315
763.93	103.1659
765.79	91.1440
766.42	94.4551
766.84	102.1570
776.49	107.4047
778.00	84.4924
778.57	84.5055
778.89	84.5130
783.80	98.4338
785.46	91.1186
792.07	84.8387

795.84	72.0062
796.30	80.3253
798.80	102.5585
801.93	85.0802
805.60	69.4305
810.29	89.9172
810.76	86.2206
815.85	102.1291
817.79	93.8245
818.51	94.7721
819.60	93.8717
826.30	106.1537
828.27	84.7849
831.60	86.7277
831.96	85.8045
834.83	96.1413
836.80	0.0000
846.75	91.7753
848.13	103.9902
856.28	0.0000
856.80	100.4801
860.37	93.0582
867.32	98.8840
867.82	95.1293
871.10	82.0156
873.19	110.3588
874.81	114.1834
875.33	0.0000
876.40	97.2373
879.36	77.4739
880.27	90.7246
880.51	100.1816
881.50	111.5517
883.24	111.6021
884.67	107.8607
889.25	90.9414
896.60	93.0175
898.02	81.6573
899.00	88.3265
903.28	114.0991
911.07	119.2310
911.07	119.2310
911.07	119.2310
919.63	125.0886
920.93	126.0864
925.00	117.6122
925.24	113.7947
926.50	111.9203
935.52	118.8914
937.48	103.6011
944.10	129.7211
946.00	112.4797
949.00	127.9589
962.29	139.9702
964.01	157.4121
966.15	115.9497
968.20	124.7089
969.11	123.7708
969.11	123.7708
969.11	123.7708
977.42	110.4607
980.50	95.0292
983.50	86.3672
989.30	99.1238
996.32	112.9225
1001.03	89.6622
1001.68	91.6248
1004.76	121.9330
1021.30	0.0000
1024.50	0.0000
1034.80	86.4639
1036.00	96.3132
1037.82	102.2565
1038.57	101.2900
1038.76	0.0000
1045.16	88.6450
1046.59	96.5565
1048.07	101.5164

1050.47	78.8932
1050.47	78.8932
1062.04	66.2530
1063.62	67.2668
1076.63	76.3984
1077.35	76.4110
1078.86	82.3921
1085.78	88.4894
1099.22	78.7878
1112.02	84.0171
1112.84	91.0370
1115.52	88.0859
1120.29	72.1494
1120.29	72.1494
1120.29	72.1494
1120.29	72.1494
1120.51	72.1523
1121.28	94.2142
1124.00	0.0000
1129.67	69.2864
1131.51	0.0000
1147.95	0.0000
1167.94	41.6618
1173.22	52.7173
1175.09	48.6816
1177.93	38.2729
1189.05	31.5348
1204.90	30.6201
1205.75	36.7515
1213.00	27.6053
1221.42	29.7033
1230.97	31.8149
1235.34	31.8439
1236.41	0.0000
1238.25	24.6680
1246.25	22.6499
1260.41	0.0000
1271.85	18.6292
1274.45	24.8516
1274.54	24.8525
1291.56	18.7031
1298.22	0.0000
1312.09	17.7367
1325.50	28.6931
1325.50	28.6931
1332.49	26.1892
1333.61	23.3503
1360.21	13.6919
1362.66	0.0000
1365.15	12.6504
1368.21	14.7679
1368.53	0.0000
1376.25	11.6213
1384.27	11.6392
1394.10	10.6006
1395.20	11.6633
1407.95	11.6911
1434.06	8.5443
1436.60	7.4797
1457.56	0.0000
1460.81	9.1999
1489.15	12.9463
1509.49	7.5793
1596.49	15.0765
1620.62	6.6230
1678.03	0.0000
1691.02	5.7437
1691.02	5.7437
1706.46	0.0000
1750.46	0.0000
1764.49	7.7492
1764.49	7.7492
1764.49	7.7492
1764.49	7.7492
1770.23	13.5732
1771.40	5.8182
1791.20	0.0000
1808.65	4.8769

1836.01	6.8564

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202041819

Total Uranium Activity	-4.0770E+00	ug/g
Total Uranium Counting Unc.	7.8568E+00	ug/g
Total Uranium Tpu	4.0086E-06	ug/g
Total Uranium Mda	6.2885E+00	ug/g

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*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 952641                    SAMPLE ID  : G1202041819        *
*   ANALYST       : MXR1                      DETECTOR   : GAM23              *
*   SAMPLE DATE   : 15-FEB-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00   *
*   ANALYSIS DATE: 23-FEB-2010 15:23:08.99    SAMPLE ALQT:  155.440 GRAM      *
*                                                                             *
*******************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.509E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.686E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.869E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.884E+00
```

Radiochemistry Batch Checklist, Rev10

Batch# 953111 Product: H^3 Date: 2-24-10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature] 2/24/10

LANL 2-26-10

Tritium Que Sheet

05-MAR-10

Batch #: 953111 Analyst: ~~GLP~~ KKK2 @ 3-5-10 First Client Due Date 26-FEB-10 Internal Due Date: 16-FEB-10

Spike Isotope: Hydrogen-3 Spike Code: —— Expiration Date: —— Vol: ——

LCS Isotope: Hydrogen-3 LCS Code: 0134-K Expiration Date: 3/27/10 Vol: 0.1

Prep Date: 2/18/10 Initials: KKG Pipet ID: 2970968 Witness: AW 2/22/10

recopied by @ 3-5-10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total Moisture Dist Vol (mL) @ 3-5-10
246557001-1	RE15-10-8363	SAMPLE		.25 pCi/mL	SOIL	LANL010	03-FEB-10	10	58-2	1		416.08	338.27	77.81
246681001-1	RE15-10-8185	SAMPLE		.25 pCi/mL	SOIL	LANL010	05-FEB-10	10	58-3	2		562.66	519.11	43.55
246681002-1	RE15-10-8183	SAMPLE		.25 pCi/mL	SOIL	LANL010	05-FEB-10	10	58-4	3		414.92	401.39	13.53
246681003-1	RE15-10-8179	SAMPLE		.25 pCi/mL	SOIL	LANL010	05-FEB-10	6.5	79-1	4		536.52	525.63	10.89
246681004-1	RE15-10-8184	SAMPLE		.25 pCi/mL	SOIL	LANL010	05-FEB-10	10	79-2	5		367.35	353.94	13.41
246681005-1	RE15-10-8180	SAMPLE		.25 pCi/mL	SOIL	LANL010	05-FEB-10	6.5	79-3	6		525.63	516.38	9.25
246681006-1	RE15-10-8181	SAMPLE		.25 pCi/mL	SOIL	LANL010	05-FEB-10	10	79-4	7	3-5-10	597.90	585.64	12.26
246681007-1	RE15-10-8182	SAMPLE		.25 pCi/mL	SOIL	LANL010	05-FEB-10	6	79-5	8		397.46	389.91	7.55
246681008-1	RE15-10-8210	SAMPLE		.25 pCi/mL	SOIL	LANL010	05-FEB-10	10	79-6	9		436.04	317.61	118.43
246837001-1	RE15-10-7992	SAMPLE		.25 pCi/mL	SOIL	LANL010	08-FEB-10	10	79-7	10		519.90	472.59	47.31
246837002-1	RE15-10-7991	SAMPLE		.25 pCi/mL	SOIL	LANL010	08-FEB-10	10	79-8	11		131.11	93.22	37.89
246837003-1	RE15-10-7990	SAMPLE		.25 pCi/mL	SOIL	LANL010	08-FEB-10	10	79-9	12		497.20	457.92	39.28
246837004-1	RE15-10-7987	SAMPLE		.25 pCi/mL	SOIL	LANL010	08-FEB-10	10	79-10	13		328.75	215.66	113.09
246837005-1	RE15-10-7988	SAMPLE		.25 pCi/mL	SOIL	LANL010	08-FEB-10	10	79-11	14		426.01	386.82	39.19
246837006-1	RE15-10-7989	SAMPLE		.25 pCi/mL	SOIL	LANL010	08-FEB-10	10	79-12	15		294.79	216.67	78.12
247033002-1	WST15-10-8940	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-FEB-10	10	0-1	16		578.71	543.41	35.30
1202042933-1	MB for batch 953111	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	0-2	17		20.00	0	20.00
1202042934-1	@ 3-5-10 ~~RE15-10-7992(246837001DUP)~~ RE15-10-8363(246557001 DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	03-FEB-10	10	0-3	1		416.08	338.27	77.81
1202042935-1	LCS for batch 953111	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	42-1	18		20.00	0	20.00

Bkg Rack #: 58-1

Comments:

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: 2-24-10

GEL Laboratories LLC, Radiochemistry Division

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.6

Batch : 953111
Analyst : KXK2
Prep Date : 2/18/2010

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2465.54
LCS Volume Added: 0.10

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.32 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	246557001.1	416.08	0.0778	0.0100	2.5729E-05	338.27	18.70%	1	2/3/2010 12:00
2	246681001.1	562.66	0.0436	0.0100	2.5729E-05	519.11	7.74%	2	2/5/2010 12:00
3	246681002.1	414.92	0.0135	0.0100	2.5729E-05	401.39	3.26%	3	2/5/2010 12:00
4	246681003.1	536.52	0.0109	0.0065	2.5729E-05	525.63	2.03%	4	2/5/2010 12:00
5	246681004.1	367.35	0.0134	0.0100	2.5729E-05	353.94	3.65%	5	2/5/2010 12:00
6	246681005.1	525.63	0.0093	0.0065	2.5729E-05	516.38	1.76%	6	2/5/2010 12:00
7	246681006.1	597.90	0.0123	0.0100	2.5729E-05	585.64	2.05%	7	2/5/2010 12:00
8	246681007.1	397.46	0.0076	0.0060	2.5729E-05	389.91	1.90%	8	2/5/2010 12:00
9	246681008.1	436.04	0.1184	0.0100	2.5729E-05	317.61	27.16%	9	2/5/2010 12:00
10	246837001.1	519.90	0.0473	0.0100	2.5729E-05	472.59	9.10%	10	2/8/2010 12:00
11	246837002.1	131.11	0.0379	0.0100	2.5729E-05	93.22	28.90%	11	2/8/2010 12:00
12	246837003.1	497.20	0.0393	0.0100	2.5729E-05	457.92	7.90%	12	2/8/2010 12:00
13	246837004.1	328.75	0.1131	0.0100	2.5729E-05	215.66	34.40%	13	2/8/2010 12:00
14	246837005.1	426.01	0.0392	0.0100	2.5729E-05	386.82	9.20%	14	2/8/2010 12:00
15	246837006.1	294.79	0.0781	0.0100	2.5729E-05	216.67	26.50%	15	2/8/2010 12:00
16	247033002.1	578.71	0.0353	0.0100	2.5729E-05	543.41	6.10%	16	2/11/2010 12:00
17	1202042933.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	17	2/18/2010 0:00
18	1202042934.1	416.08	0.0778	0.0100	2.5729E-05	338.27	18.70%	1	2/3/2010 12:00
19	1202042935.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	18	2/18/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	58-2	95	735.21	3.3	2.83	95	2/22/2010 20:19	0.997	LSCYELLOW	8/21/2009	8/31/2010	0.2086	0.00792	58-1	2/22/2010 18:42
2	58-3	70.5833	733.4	563.47	2.83	95	2/22/2010 21:55	0.997	LSCYELLOW	8/21/2009	8/31/2010	0.2058	0.00792	58-1	2/22/2010 18:42
3	58-4	54.5667	735.56	733.74	2.83	95	2/22/2010 23:07	0.997	LSCYELLOW	8/21/2009	8/31/2010	0.2091	0.00792	58-1	2/22/2010 18:42
4	79-1	46.9667	736.01	852.34	2.83	95	2/23/2010 1:17	0.997	LSCYELLOW	8/21/2009	8/31/2010	0.2097	0.00792	58-1	2/22/2010 18:42
5	79-2	53.1	734.86	755.05	2.83	95	2/23/2010 2:05	0.997	LSCYELLOW	8/21/2009	8/31/2010	0.2080	0.00792	58-1	2/22/2010 18:42
6	79-3	65.65	734.2	607.04	2.83	95	2/23/2010 2:59	0.997	LSCYELLOW	8/21/2009	8/31/2010	0.2070	0.00792	58-1	2/22/2010 18:42
7	79-4	42.1167	736.97	955.28	2.83	95	2/23/2010 4:06	0.997	LSCYELLOW	8/21/2009	8/31/2010	0.2111	0.00792	58-1	2/22/2010 18:42
8	79-5	71.5167	735.01	556.78	2.83	95	2/23/2010 4:50	0.997	LSCYELLOW	8/21/2009	8/31/2010	0.2083	0.00792	58-1	2/22/2010 18:42
9	79-6	68.7167	734.91	579.91	2.83	95	2/23/2010 8:02	0.997	LSCYELLOW	8/21/2009	8/31/2010	0.2081	0.00792	58-1	2/22/2010 18:42
10	79-7	95	735.76	4.58	2.83	95	2/23/2010 7:12	0.998	LSCYELLOW	8/21/2009	8/31/2010	0.2094	0.00792	58-1	2/22/2010 18:42
11	79-8	95	735.61	3	2.83	95	2/23/2010 8:49	0.998	LSCYELLOW	8/21/2009	8/31/2010	0.2092	0.00792	58-1	2/22/2010 18:42
12	79-9	95	735.81	8.81	2.83	95	2/23/2010 10:25	0.998	LSCYELLOW	8/21/2009	8/31/2010	0.2094	0.00792	58-1	2/22/2010 18:42
13	79-10	95	734.86	3.96	2.83	95	2/23/2010 12:01	0.998	LSCYELLOW	8/21/2009	8/31/2010	0.2080	0.00792	58-1	2/22/2010 18:42
14	79-11	95	735.26	4.4	2.83	95	2/23/2010 13:37	0.998	LSCYELLOW	8/21/2009	8/31/2010	0.2086	0.00792	58-1	2/22/2010 18:42
15	79-12	95	734.96	4.85	2.83	95	2/23/2010 15:14	0.998	LSCYELLOW	8/21/2009	8/31/2010	0.2082	0.00792	58-1	2/22/2010 18:42
16	0-1	95	735.26	3.73	2.83	95	2/23/2010 16:50	0.998	LSCYELLOW	8/21/2009	8/31/2010	0.2086	0.00792	58-1	2/22/2010 18:42
17	0-2	95	734.96	2.84	2.83	95	2/23/2010 18:26	0.999	LSCYELLOW	8/21/2009	8/31/2010	0.2082	0.00792	58-1	2/22/2010 18:42
18	0-3	95	735.71	3.29	2.83	95	2/23/2010 20:02	0.997	LSCYELLOW	8/21/2009	8/31/2010	0.2093	0.00792	58-1	2/22/2010 18:42
19	42-1	15	736.52	29.19	2.83	95	2/23/2010 21:39	0.999	LSCYELLOW	8/21/2009	8/31/2010	0.2105	0.00792	58-1	2/22/2010 18:42

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	123.2044	86.9833	250	180.8077	**101.8173**	0.541	0.470	0.254	55.0291	55.4841		SAMPLE				
2	135.1700	95.4312	250	200.1896	**123032.4638**	0.010	560.640	2.831	621.1961	8591.3922		SAMPLE				
3	143.8314	101.5462	250	214.9693	**157897.9323**	0.010	730.910	3.671	793.0498	11025.7561		SAMPLE				
4	231.6377	163.5382	250	348.2383	**281444.0638**	0.011	849.510	4.264	1412.5093	19689.1418		SAMPLE				
5	145.8194	102.9498	250	218.1662	**163321.2429**	0.010	752.220	3.775	819.5828	11404.4063		SAMPLE				
6	211.1452	149.0703	250	313.4782	**202795.7159**	0.011	604.210	3.046	1022.2582	14187.4161		SAMPLE				
7	155.2212	109.5875	250	234.4124	**203745.3277**	0.010	952.450	4.766	1019.4568	14226.9279		SAMPLE				
8	221.8185	156.6058	250	328.3751	**200242.3074**	0.011	553.950	2.796	1010.5382	14016.6485		SAMPLE				
9	134.7272	95.1186	250	199.7128	**125253.1242**	0.010	577.080	2.910	631.6361	8746.4057		SAMPLE				
10	122.6371	86.5829	250	179.9752	**377.3615**	0.160	1.750	0.279	60.2236	65.7088		SAMPLE				
11	122.7688	86.6758	250	180.1685	**36.6973**	1.457	0.170	0.248	53.4759	53.5369		SAMPLE				
12	122.5963	86.5540	250	179.9154	**1289.0692**	0.059	5.980	0.350	75.4553	117.2776		SAMPLE				
13	123.4321	87.1441	250	181.1419	**245.2473**	0.237	1.130	0.267	58.0228	60.4847		SAMPLE				
14	123.0791	86.8949	250	180.6239	**339.7674**	0.176	1.570	0.276	59.7021	64.2209		SAMPLE				
15	123.3457	87.0831	250	181.0151	**438.0998**	0.141	2.020	0.284	61.6652	68.8013		SAMPLE				
16	123.0246	86.8566	250	180.5442	**194.6851**	0.292	0.900	0.263	58.8434	58.4383		SAMPLE				
17	123.1679	86.9576	250	180.7541	**2.1657**	24.430	0.010	0.244	52.9084	52.9087		MB				
18	122.7852	86.6874	250	180.1925	**99.3119**	0.552	0.460	0.254	54.7971	55.2319	246557001.1	DUP	2.5%	0.0113		
19	233.2633	164.6859	250	372.2107	**5646.1678**	0.054	26.360	1.406	301.0778	495.2643		LCS			5553.0214	101.7%

DATE		2/18/2010		INITIALS	KXK2			BATCH NUMBER	953111

Sample #	Flask Wt (g)	Sample Wet (g)	Flask & Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	Flask & Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
246577001	200	416.08	616.08	0.187	77.81	338.27	538.27	10	
246681001	200	562.66	762.66	0.077	43.55	519.11	719.11	10	
246681002	200	414.92	614.92	0.033	13.53	401.39	601.39	10	
246681003	200	536.52	736.52	0.020	10.89	525.63	725.63	6.5	
246681004	200	367.35	567.35	0.037	13.41	353.94	553.94	10	
246681005	200	525.63	725.63	0.018	9.25	516.38	716.38	6.5	
246681006	200	597.90	797.90	0.021	12.26	585.64	785.64	10	
246681007	200	397.46	597.46	0.019	7.55	389.91	589.91	6	
246681008	200	436.04	636.04	0.272	118.43	317.61	517.61	10	
246837001	200	519.90	719.90	0.091	47.31	472.59	672.59	10	
246837002	200	131.11	331.11	0.289	37.89	93.22	293.22	10	
246837003	200	497.20	697.20	0.079	39.28	457.92	657.92	10	
246837004	200	328.75	528.75	0.344	113.09	215.66	415.66	10	
246837005	200	426.01	626.01	0.092	39.19	386.82	586.82	10	
246837006	200	294.79	494.79	0.265	78.12	216.67	416.67	10	
247033002	200	578.71	778.71	0.061	35.30	543.41	743.41	10	
MB	200	20.00	220.00	1.000	20.00	0.00	200.00	10	
DUP	200	416.08	616.08	0.187	77.81	338.27	538.27	10	
LCS	200	20.00	220.00	1.000	20.00	0.00	200.00	10	

PROTOCOL	: 10 H-3 95 min
DATE	: 2010/02/22
TIME	: 18:42
ID	: P10AS246

H-3

Wallac 1414 WinSpectral v1.40 S/N 4140127

Counting mode	: DPM
Quench index	: SQP(E)
Isotope(s)	: H3
H3 = ,12.43 y	
Protocol name	: H-3 95 min
Counting time	: 5700
Repeats	: 1
Cycles	: 1
Replicates	: 1
2 sigma %	: 0.00
Minimum cpm	: 0.00 Checking time: 10
Sp. library of isotope H3	: Wallac
Vial type	: Diffuse
Liquid system	: HISafe
Advanced modes	: Chemilum
Output to Display	:

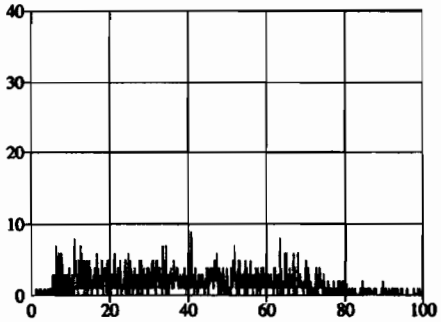
POS,DPM1,CPMw2,CLMM,FNCT2,
RACK,RACKPOS,FNCT1,SQPE,DATE,
TIME,CPMw1,CPM,CPM1,CTIME

Additions to Display	: Listing,Header,Spectrum
Header	: H-3
Spectrum	: Rnd.Cos,Beta
Window 1	: 25- 190 /Beta
Window 2	: 25- 190 /Rnd.Cos
Window 3	: 1-1024 /Beta
Window 4	: 1-1024 /Beta
Window 5	: 1-1024 /Beta
Window 6	: 1-1024 /Beta
FNCT1 = FNCT1	: CTIME/60
FNCT2 = FNCT2	: CPMW1-CPMW2
FNCT3 = FNCT3	:
FNCT4 = FNCT4	:

Total activity:

H3	4861.0 DPM	0.081 kBq

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
58	1	95.00	741.45	2.83	2/22/2010 6:42 PM



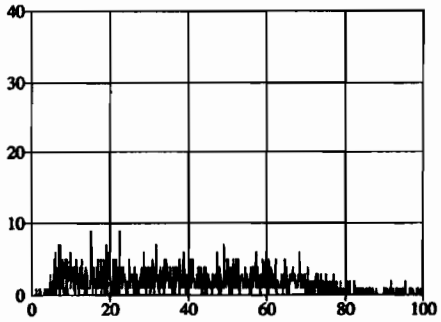
Counts Chem

Counts Beta

Gross_B_CPM	LUMEX
3.60	0.00

Lumex_CPM	DPM
0.80	10.90

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
58	2	95.00	735.21	3.30	2/22/2010 8:19 PM



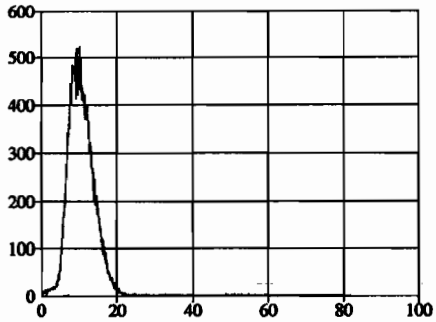
Counts Chem

Counts Beta

Gross_B_CPM	LUMEX
3.90	0.00

Lumex_CPM	DPM
0.60	13.10

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
58	3	70.58	733.40	563.47	2/22/2010 9:55 PM



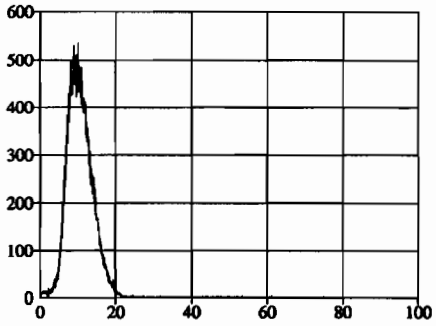
Counts Chem

Counts Beta

Gross_B_CPM	LUMEX
564.10	0.00

Lumex_CPM	DPM
0.60	2118.70

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
58	4	54.57	735.56	733.74	2/22/2010 11:07 PM



Counts Chem

Counts Beta

Gross_B_CPM	LUMEX
734.30	0.00

Lumex_CPM	DPM
0.50	2718.40

PROTOCOL : 10 H-3 95 min
DATE : 2010/02/23
TIME : 01:16
ID : P10AS247

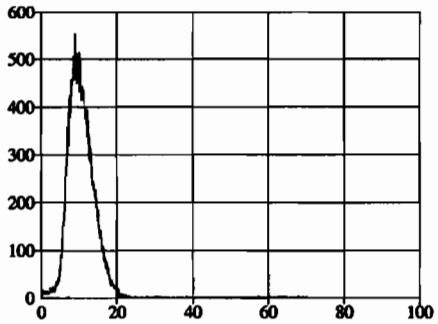
H-3

Wallac 1414 WinSpectral v1.40 S/N 4140127
Counting mode : DPM
Quench Index : SQP(E)
Isotope(s) : H3
H3 = ,12.43 y
Protocol name : H-3 95 min
Counting time : 5700
Repeats : 1
Cycles : 1
Replicates : 1
2 sigma % : 0.00
Minimum cpm : 0.00 Checking time: 10
Sp. library of isotope H3 : Wallac
Vial type : Diffuse
Liquid system : HiSafe
Advanced modes : Chemilum
Output to Display :
POS,DPM1,CPMw2,CLMM,FNCT2,
RACK,RACKPOS,FNCT1,SQPE,DATE,
TIME,CPMw1,CPM,CPM1,CTIME
Additions to Display : Listing,Header,Spectrum
Header : H-3
Spectrum : Rnd.Cos,Beta
Window 1 : 25- 190 /Beta
Window 2 : 25- 190 /Rnd.Cos
Window 3 : 1-1024 /Beta
Window 4 : 1-1024 /Beta
Window 5 : 1-1024 /Beta
Window 6 : 1-1024 /Beta
FNCT1 = FNCT1 : CTIME/60
FNCT2 = FNCT2 : CPMW1-CPMW2
FNCT3 = FNCT3 :
FNCT4 = FNCT4 :

Total activity:

H3	16053.0 DPM	0.268 kBq

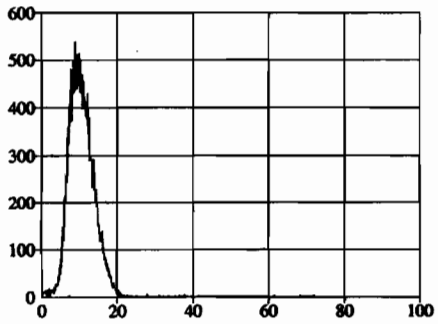
Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	1	46.97	736.01	852.34	2/23/2010 1:17 AM



Gross_B_CPM	LUMEX
853.20	0.00

Lumex_CPM	DPM
0.80	3123.40

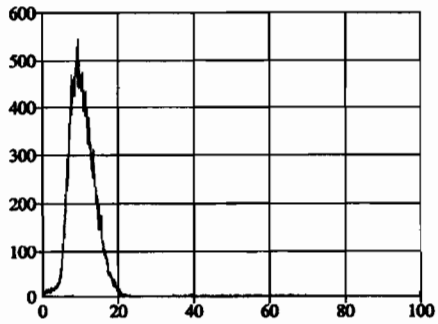
Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	2	53.10	734.86	755.05	2/23/2010 2:05 AM



Gross_B_CPM	LUMEX
756.00	0.00

Lumex_CPM	DPM
0.90	2796.90

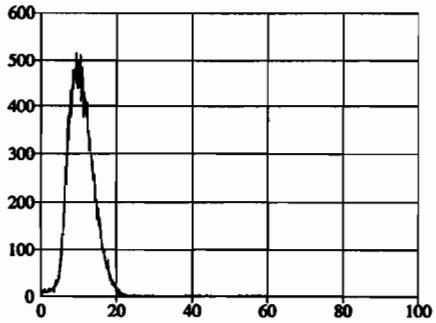
Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	3	65.65	734.20	607.04	2/23/2010 2:59 AM



Gross_B_CPM	LUMEX
607.80	0.00

Lumex_CPM	DPM
0.80	2271.80

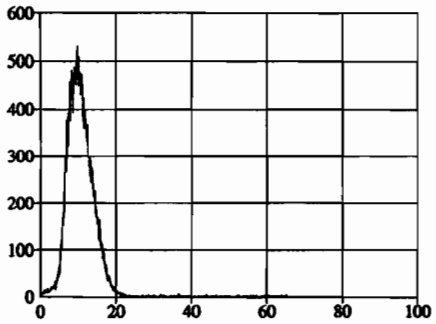
Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	4	42.12	736.97	955.28	2/23/2010 4:06 AM



Gross_B_CPM	LUMEX
956.10	0.00

Lumex_CPM	DPM
0.80	3508.80

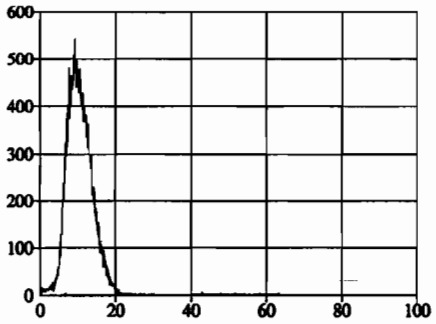
Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	5	71.52	735.01	556.78	2/23/2010 4:50 AM



Gross_B_CPM	LUMEX
557.50	0.00

Lumex_CPM	DPM
0.80	2054.80

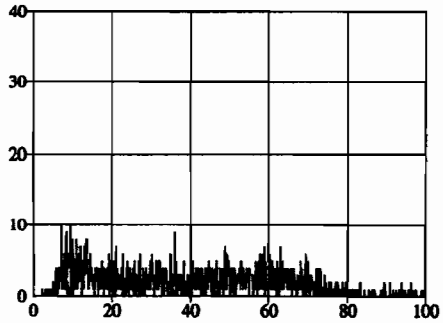
Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	6	68.72	734.91	579.91	2/23/2010 6:02 AM



Gross_B_CPM	LUMEX
580.60	0.00

Lumex_CPM	DPM
0.70	2148.20

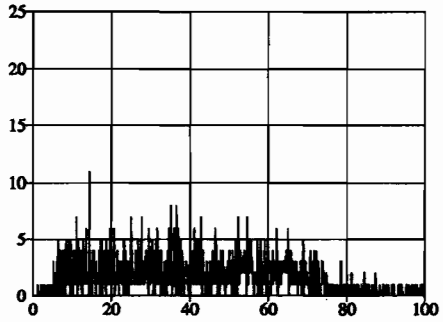
Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	7	95.00	735.76	4.58	2/23/2010 7:12 AM



Gross_B_CPM	LUMEX
5.40	0.00

Lumex_CPM	DPM
0.80	17.50

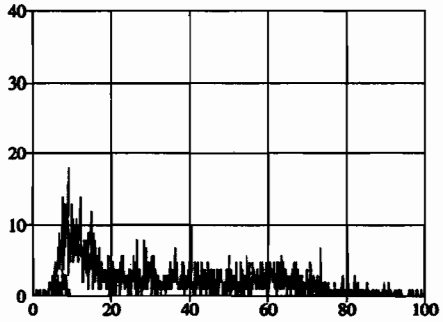
Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	8	95.00	735.61	3.00	2/23/2010 8:49 AM



Gross_B_CPM	LUMEX
3.60	0.00

Lumex_CPM	DPM
0.60	11.60

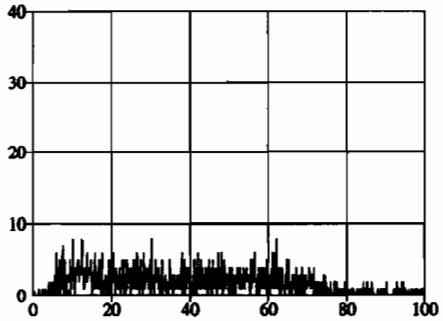
Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	9	95.00	735.81	8.81	2/23/2010 10:25 AM



Gross_B_CPM	LUMEX
9.30	0.00

Lumex_CPM	DPM
0.50	31.70

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	10	95.00	734.86	3.96	2/23/2010 12:01 PM



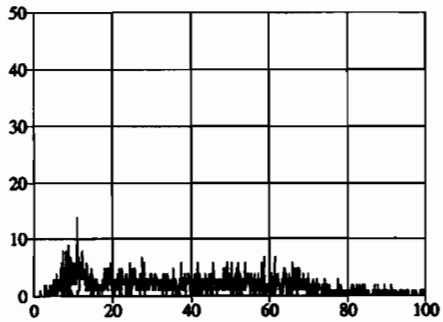
Counts Chem

Counts Beta

Gross_B_CPM	LUMEX
4.50	0.00

Lumex_CPM	DPM
0.50	15.10

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	11	95.00	735.26	4.40	2/23/2010 1:37 PM



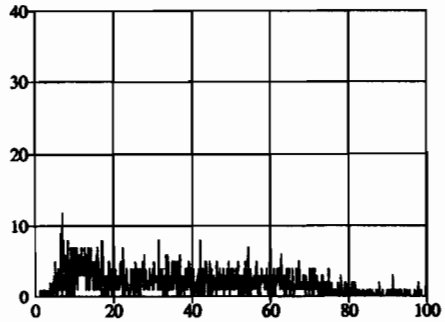
Counts Chem

Counts Beta

Gross_B_CPM	LUMEX
5.00	0.00

Lumex_CPM	DPM
0.60	16.90

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
79	12	95.00	734.96	4.85	2/23/2010 3:14 PM



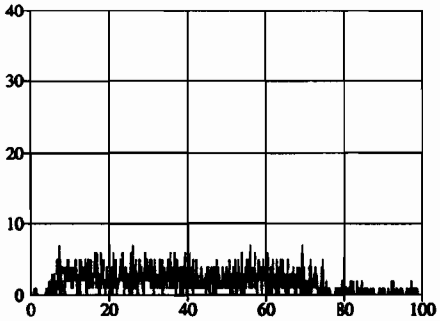
Counts Chem

Counts Beta

Gross_B_CPM	LUMEX
5.50	0.00

Lumex_CPM	DPM
0.70	18.70

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
0	1	95.00	735.26	3.73	2/23/2010 4:50 PM



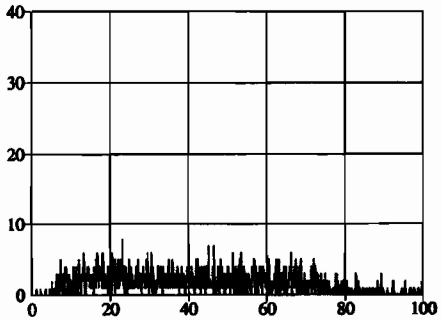
Counts Chem

Counts Beta

Gross_B_CPM	LUMEX
4.30	0.00

Lumex_CPM	DPM
0.50	14.20

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
0	2	95.00	734.96	2.84	2/23/2010 6:26 PM



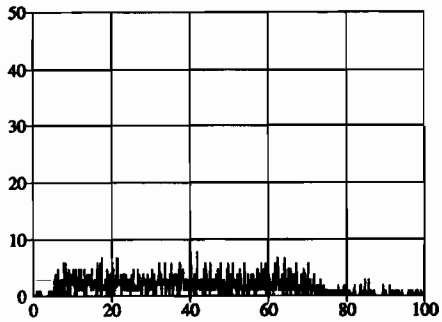
Counts Chem

Counts Beta

Gross_B_CPM	LUMEX
3.20	0.00

Lumex_CPM	DPM
0.30	10.90

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
0	3	95.00	735.71	3.29	2/23/2010 8:02 PM



Counts Chem

Counts Beta

Gross_B_CPM	LUMEX
3.60	0.00

Lumex_CPM	DPM
0.30	12.70

PROTOCOL	: 13 H-3 15 min
DATE	: 2010/02/23
TIME	: 21:39
ID	: P13AS311

H-3

Wallac 1414 WinSpectral v1.40 S/N 4140127

Counting mode	: DPM
Quench index	: SQP(E)
Isotope(s)	: H3
H3 = ,12.43 y	
Protocol name	: H-3 15 min
Counting time	: 900
Repeats	: 1
Cycles	: 1
Replicates	: 1
2 sigma %	: 2.00
Minimum cpm	: 0.00 Checking time: 10
Sp. library of isotope H3	: Wallac
Vial type	: Diffuse
Liquid system	: HiSafe
Advanced modes	: Chemilum
Output to Display	:

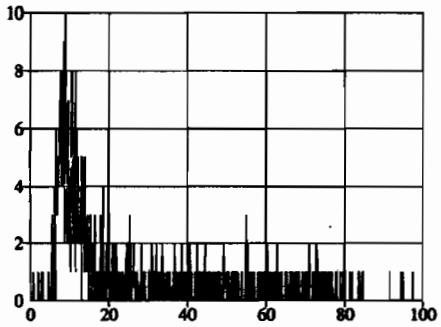
POS,DPM1,CPMw2,CLMM,FNCT2,
RACK,RACKPOS,FNCT1,SQPE,DATE,
TIME,CPMw1,CPM,CPM1,CTIME

Additions to Display	: Listing,Header,Spectrum
Header	: H-3
Spectrum	: Rnd.Cos,Beta
Window 1	: 25- 190 /Beta
Window 2	: 25- 190 /Rnd.Cos
Window 3	: 1-1024 /Beta
Window 4	: 1-1024 /Beta
Window 5	: 1-1024 /Beta
Window 6	: 1-1024 /Beta
FNCT1 = FNCT1	: CTIME/60
FNCT2 = FNCT2	: CPMW1-CPMW2
FNCT3 = FNCT3	:
FNCT4 = FNCT4	:

Total activity:

H3	106.9 DPM	0.002 kBq

Rack_position		Count_Time(min)	Quench_number	H-3_CPM	Run_Date
42	1	15.00	736.52	29.19	2/23/2010 9:39 PM



Counts Chem

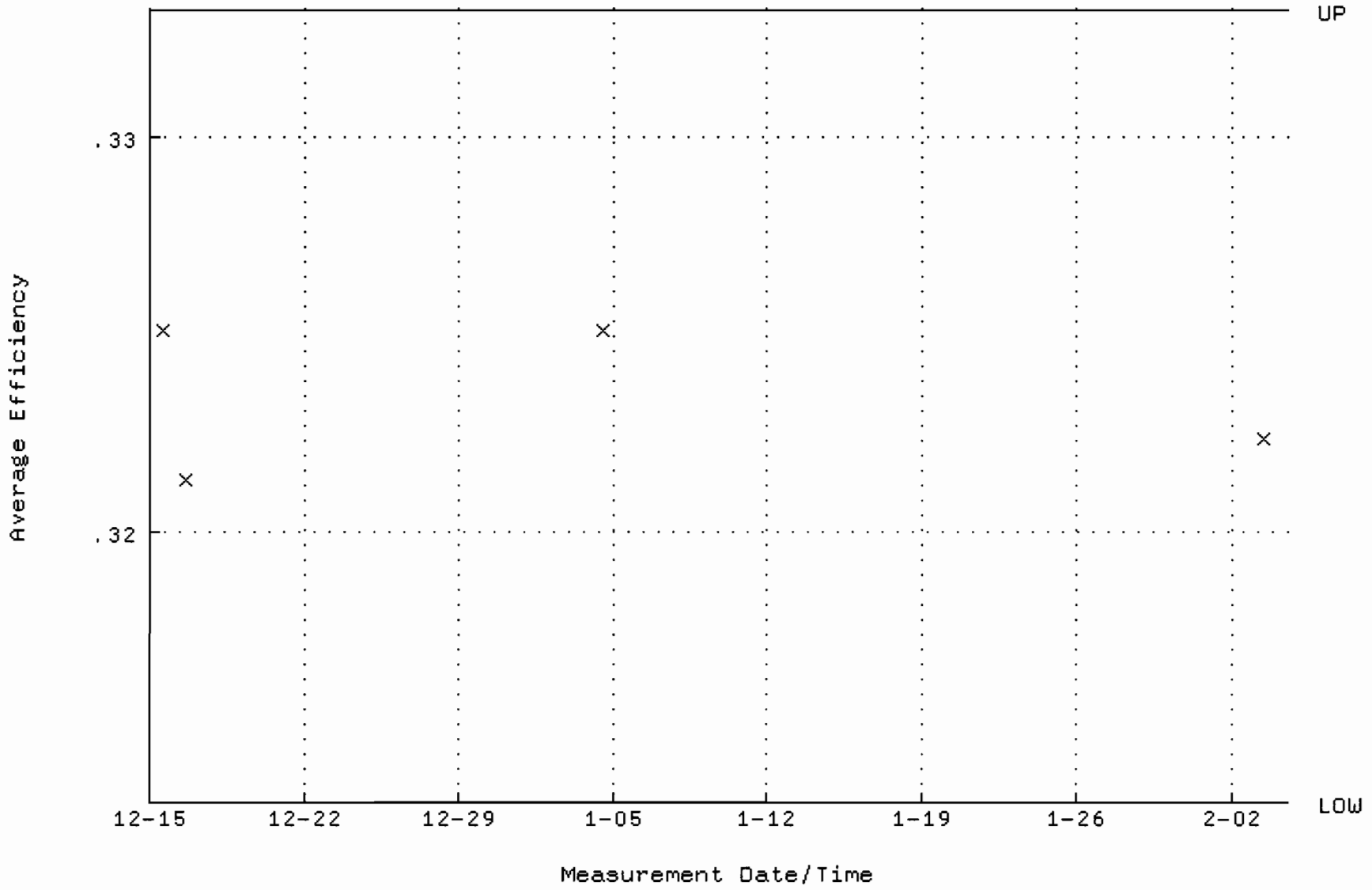
Counts Beta

Gross_B_CPM	LUMEX
29.50	0.00

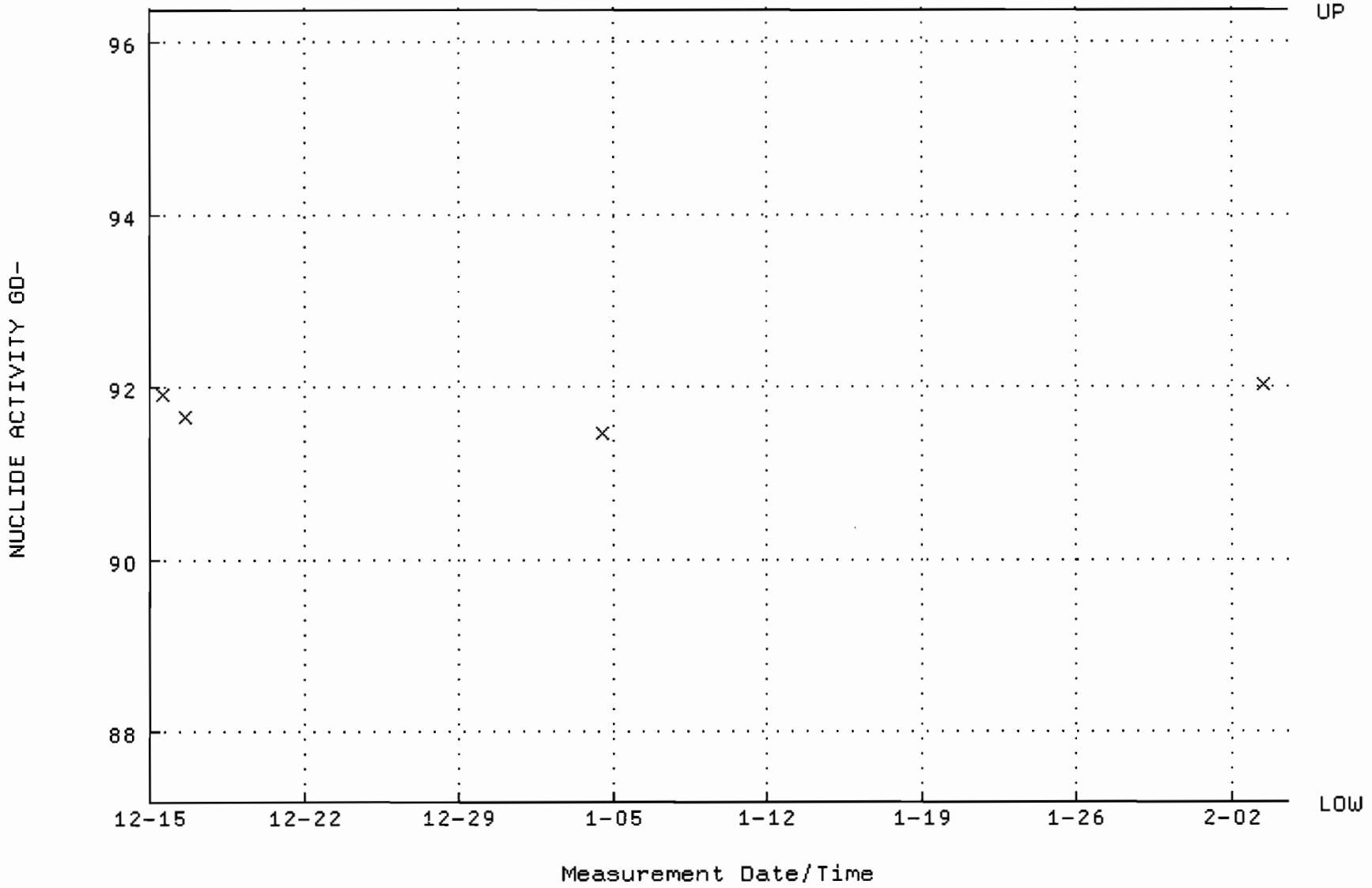
Lumex_CPM	DPM
0.30	106.90

BACKGROUND AND EFFICIENCY DATA

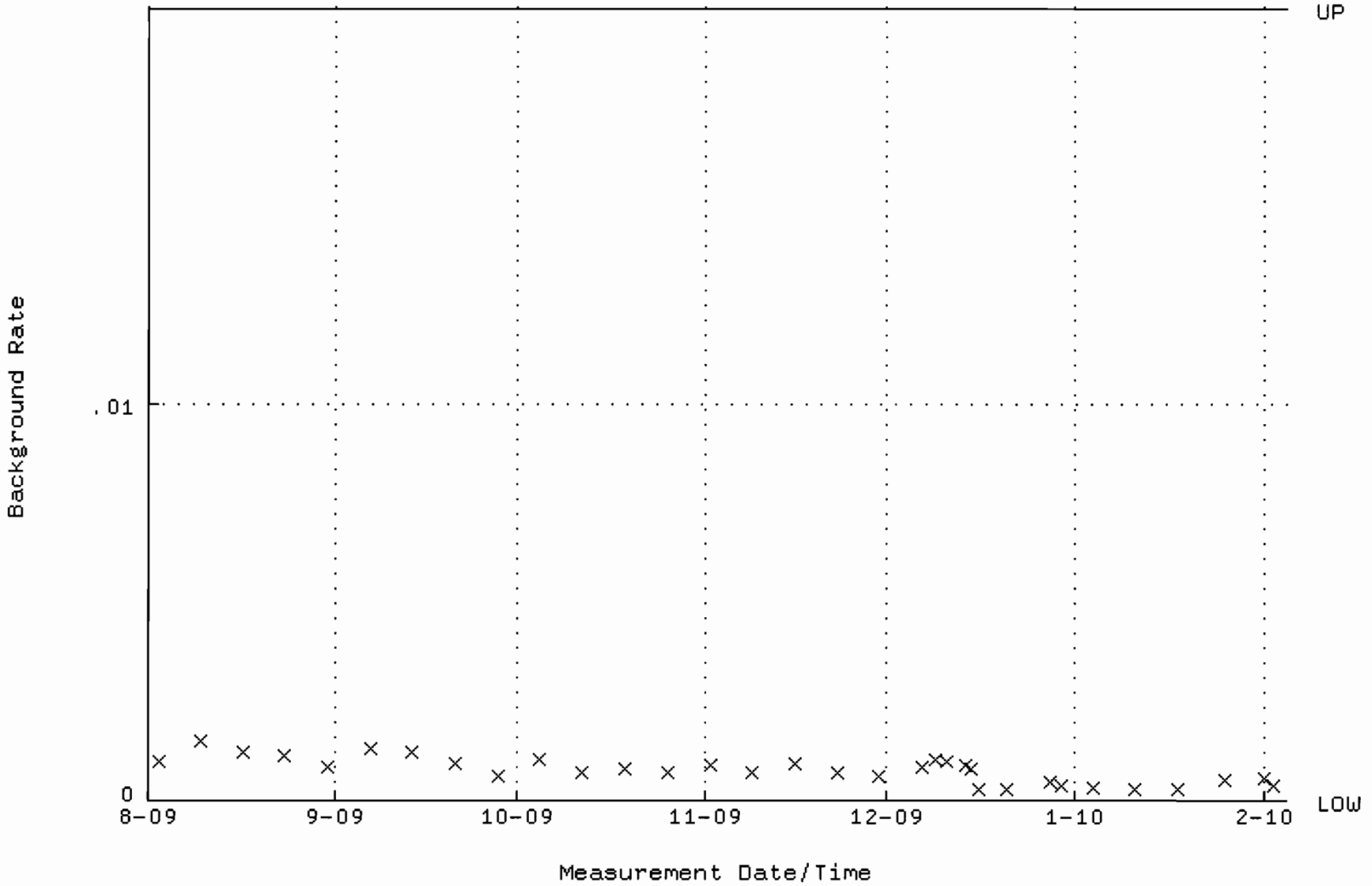
QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313195 through 0.333195



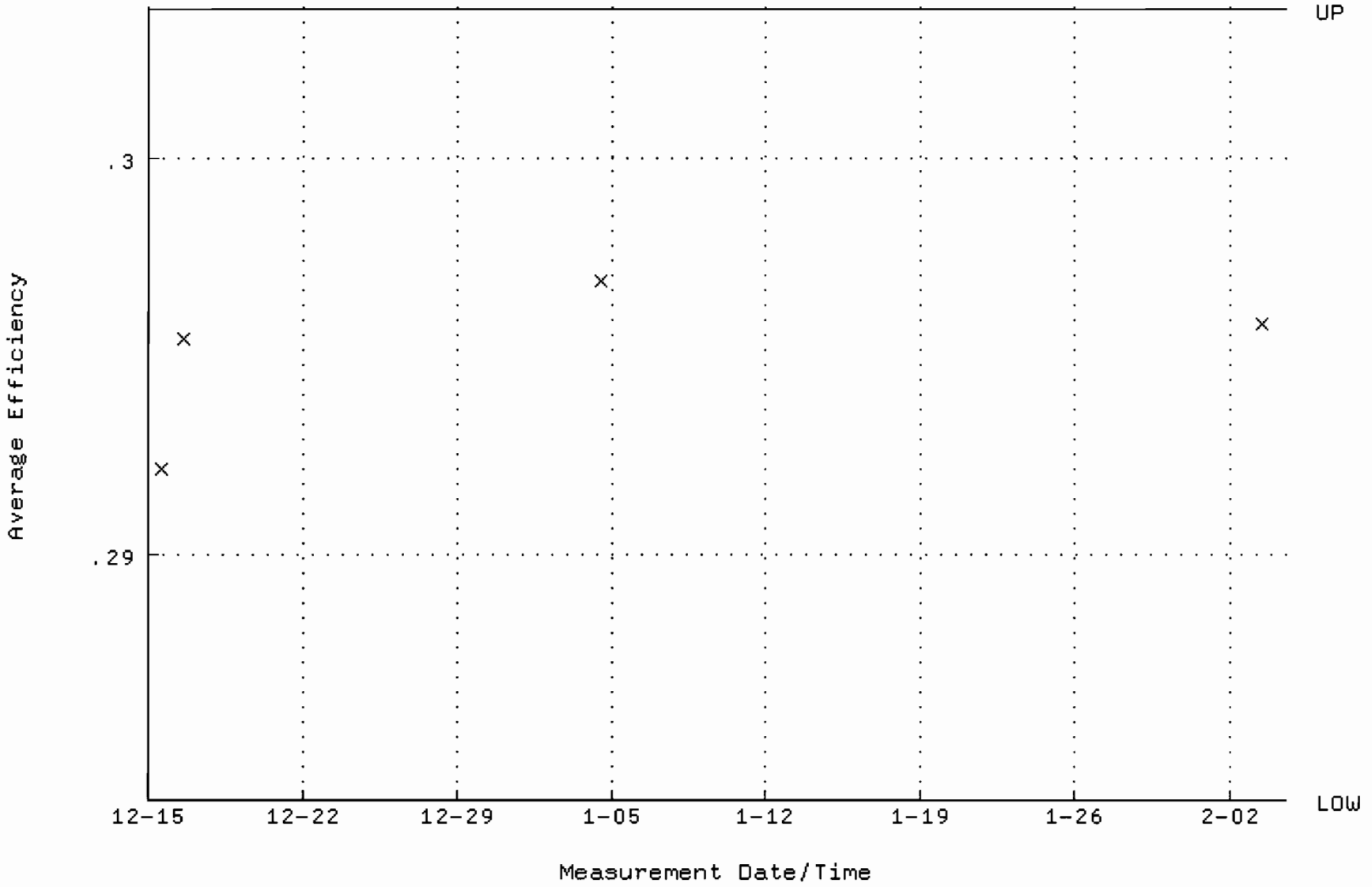
QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1884 through 96.3662



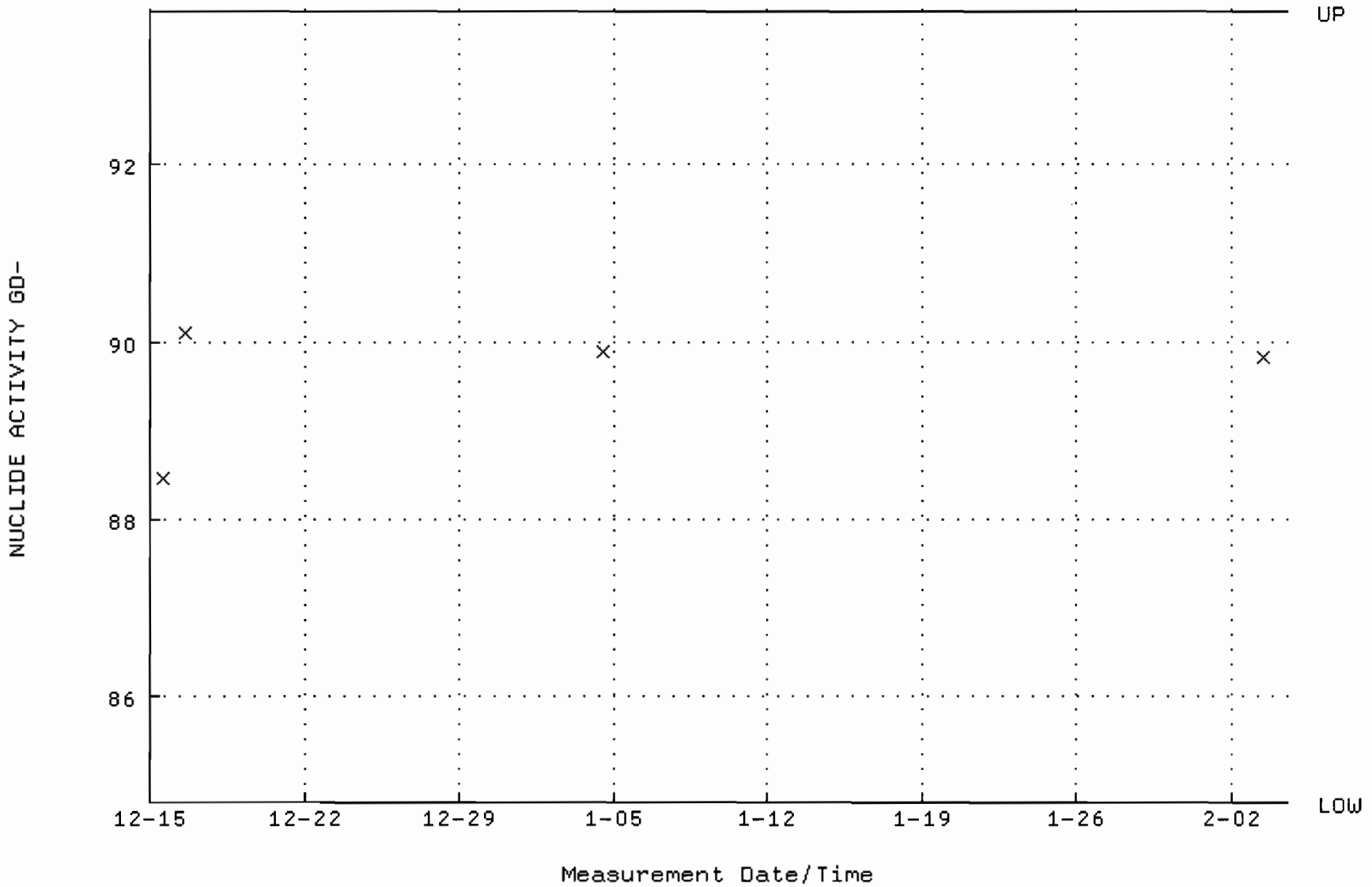
QA filename : DKA100:[ENV_ALPHA.QA.B]B001.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



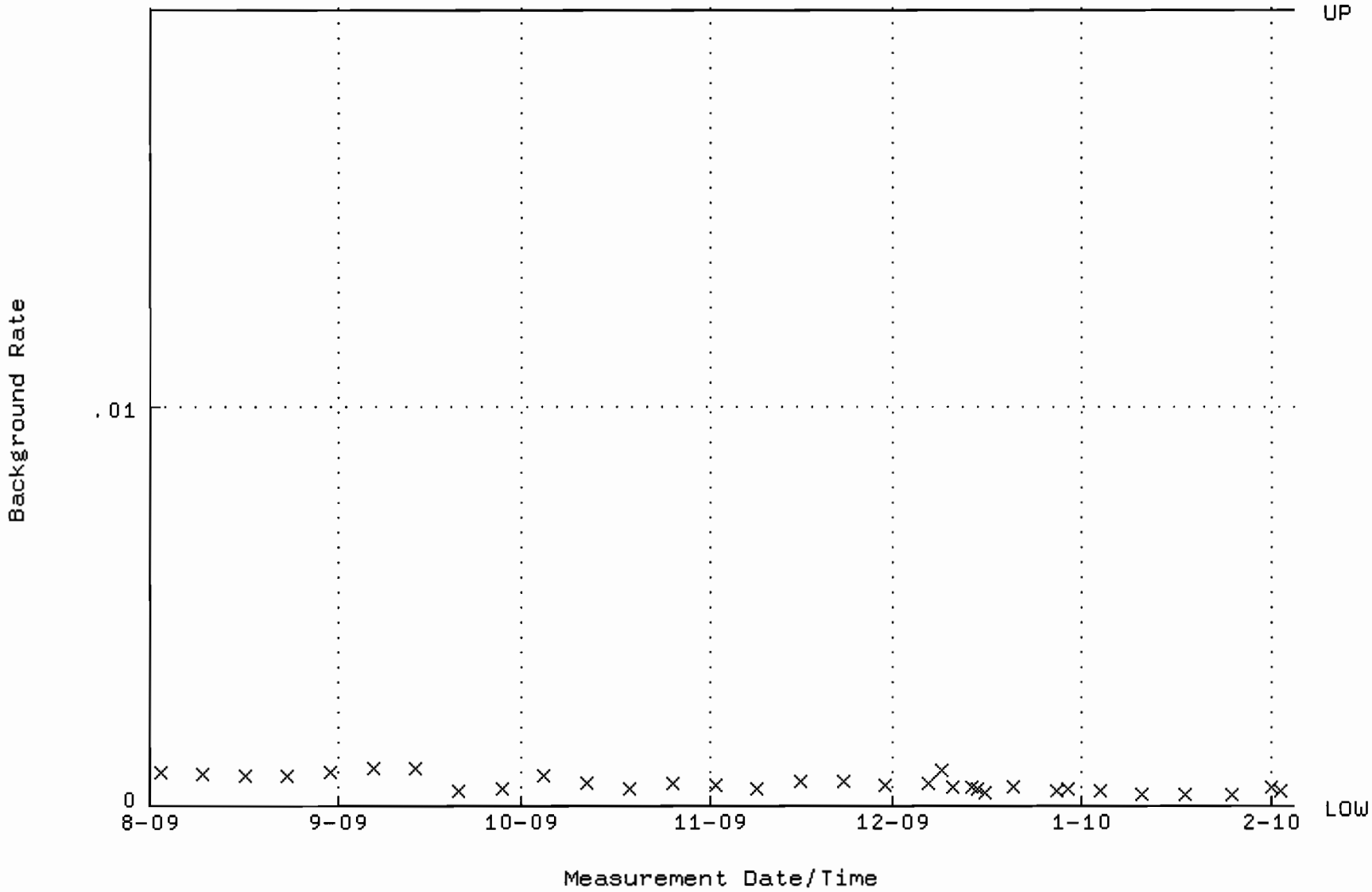
QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.283765 through 0.303765



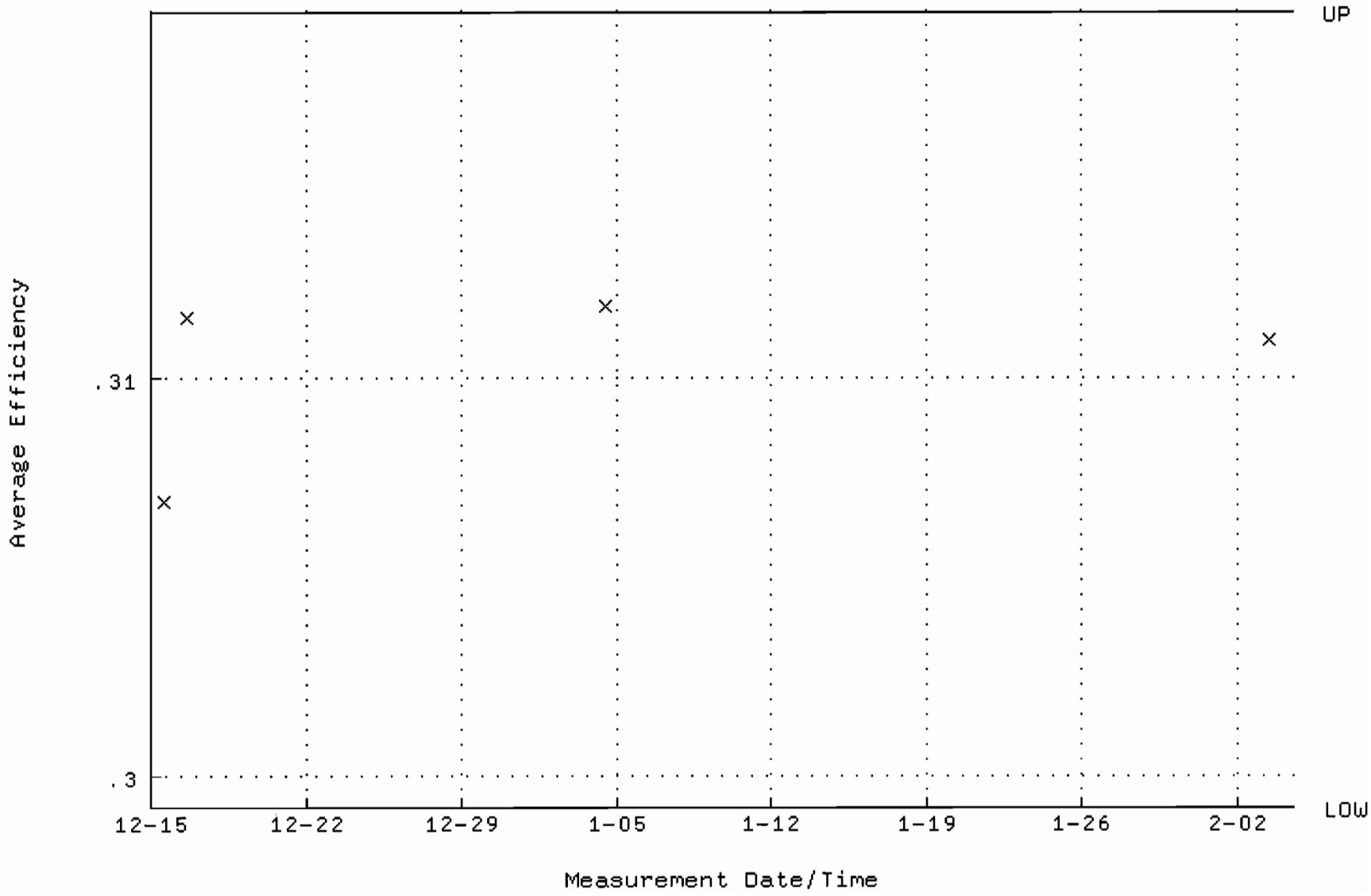
QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.8037 through 93.7305



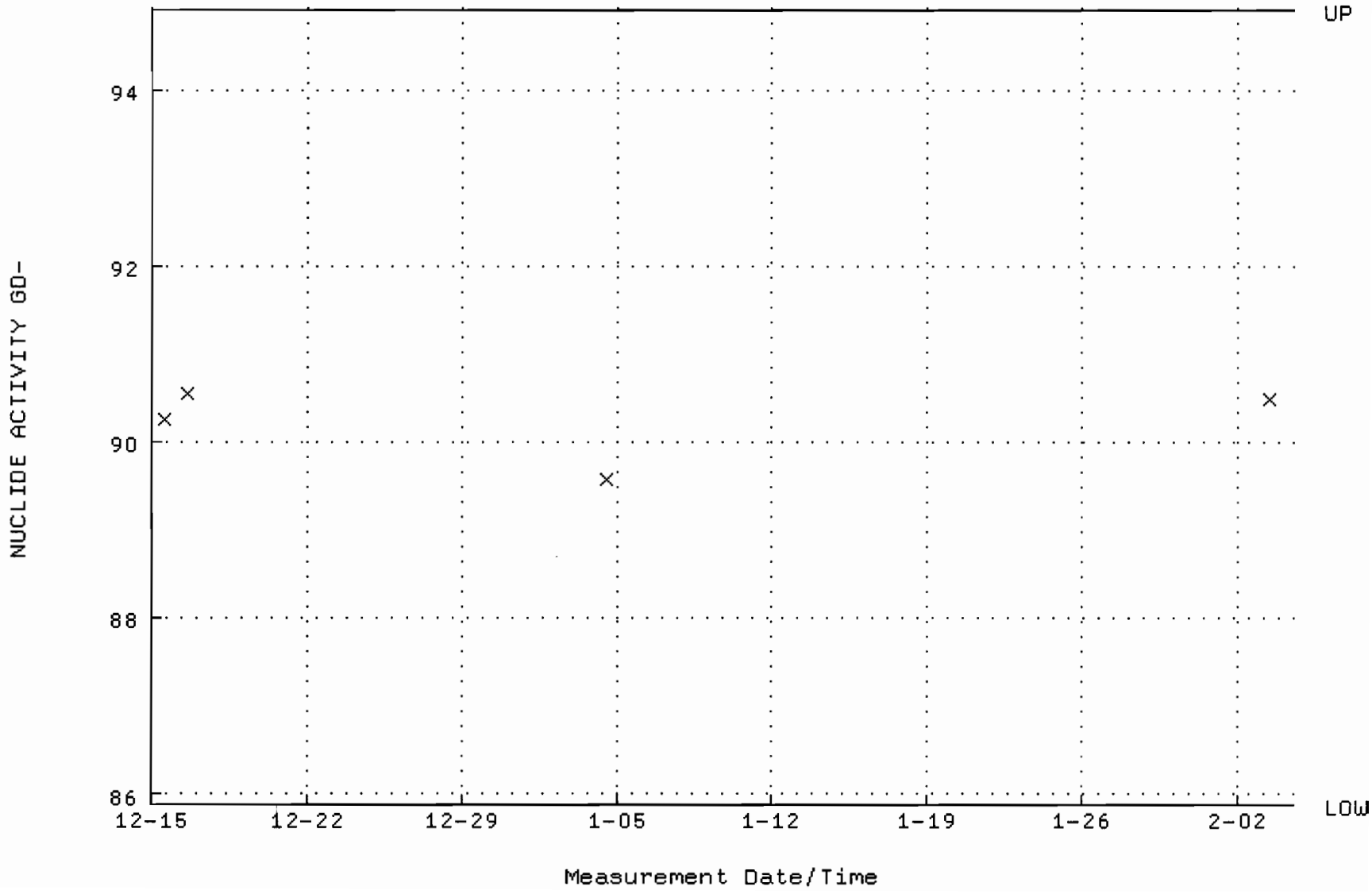
QA filename : DKA100:[ENV_ALPHA.QA.B]B002.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



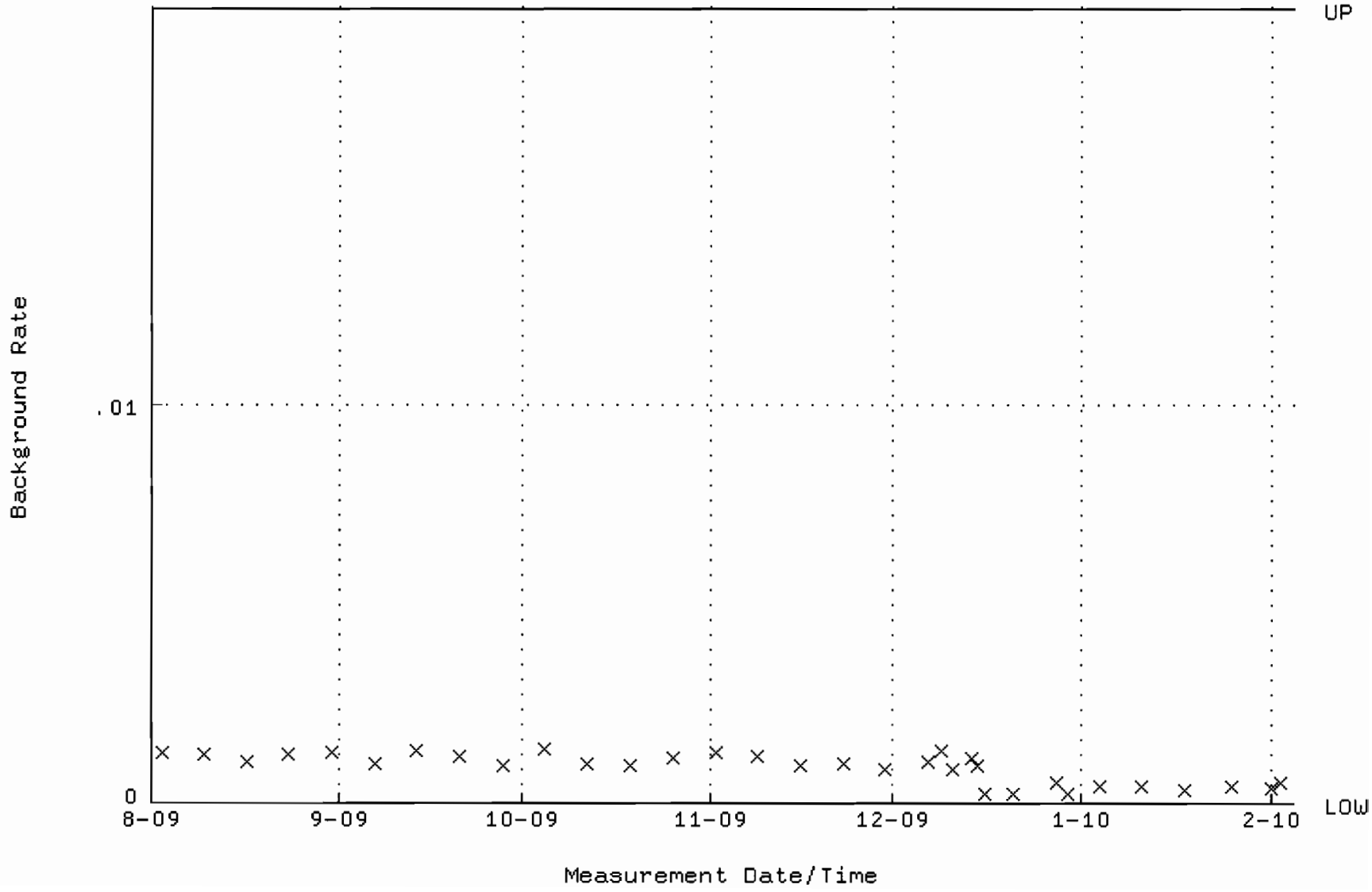
QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.299193 through 0.319193



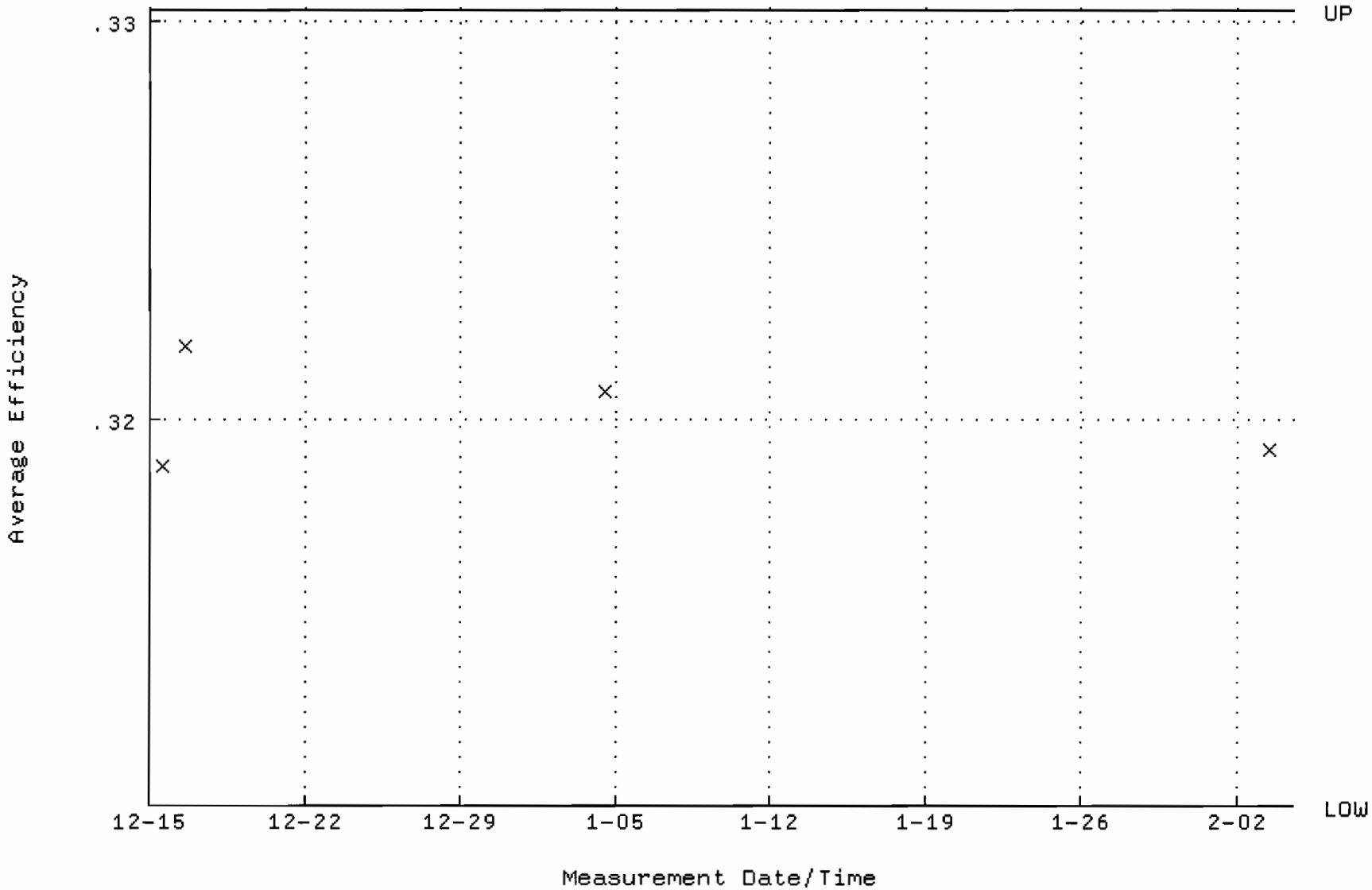
QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8745 through 94.9139



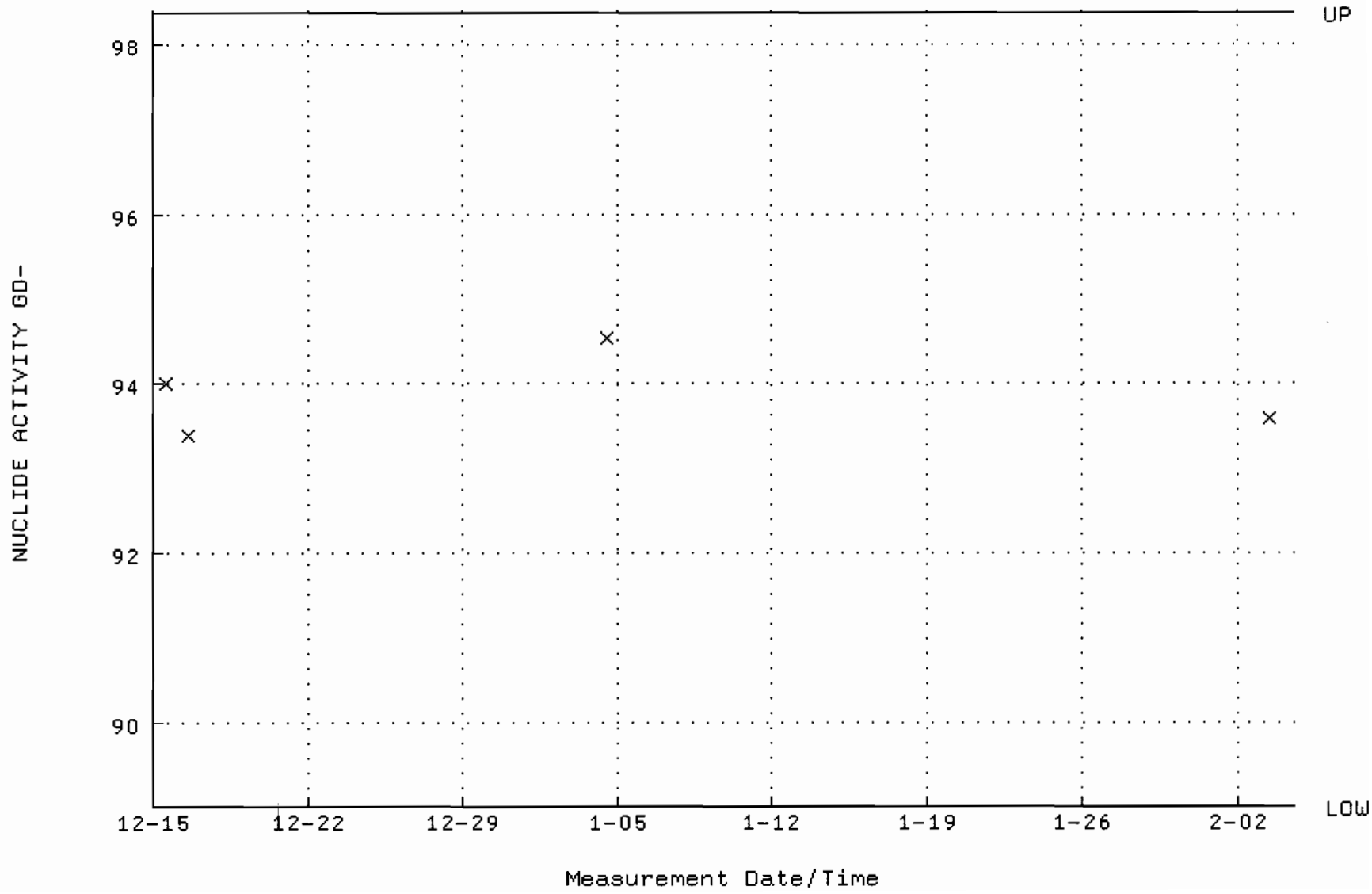
QA filename : DKA100:[ENV_ALPHA.QA.B]B003.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



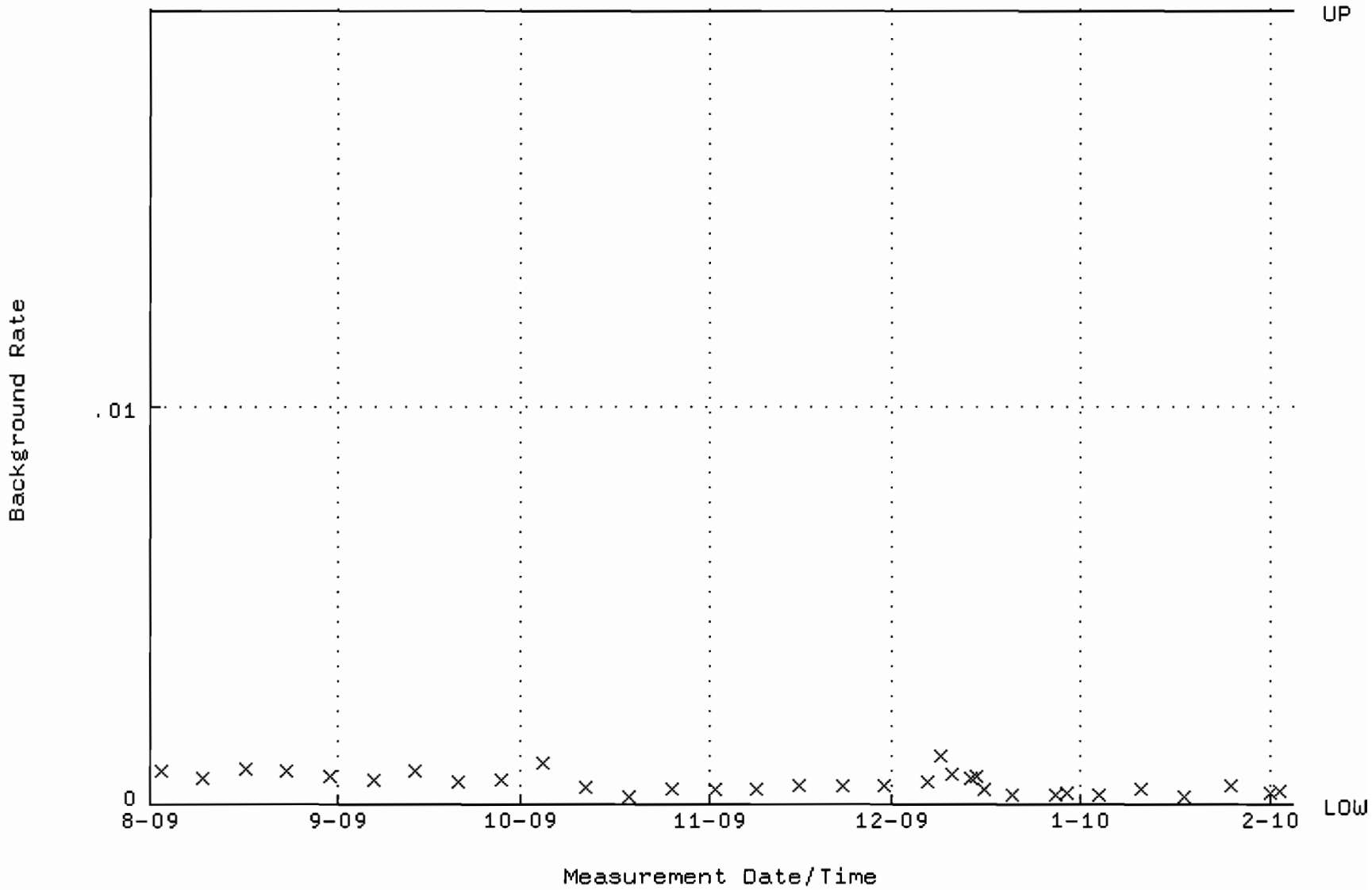
QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.310305 through 0.330305



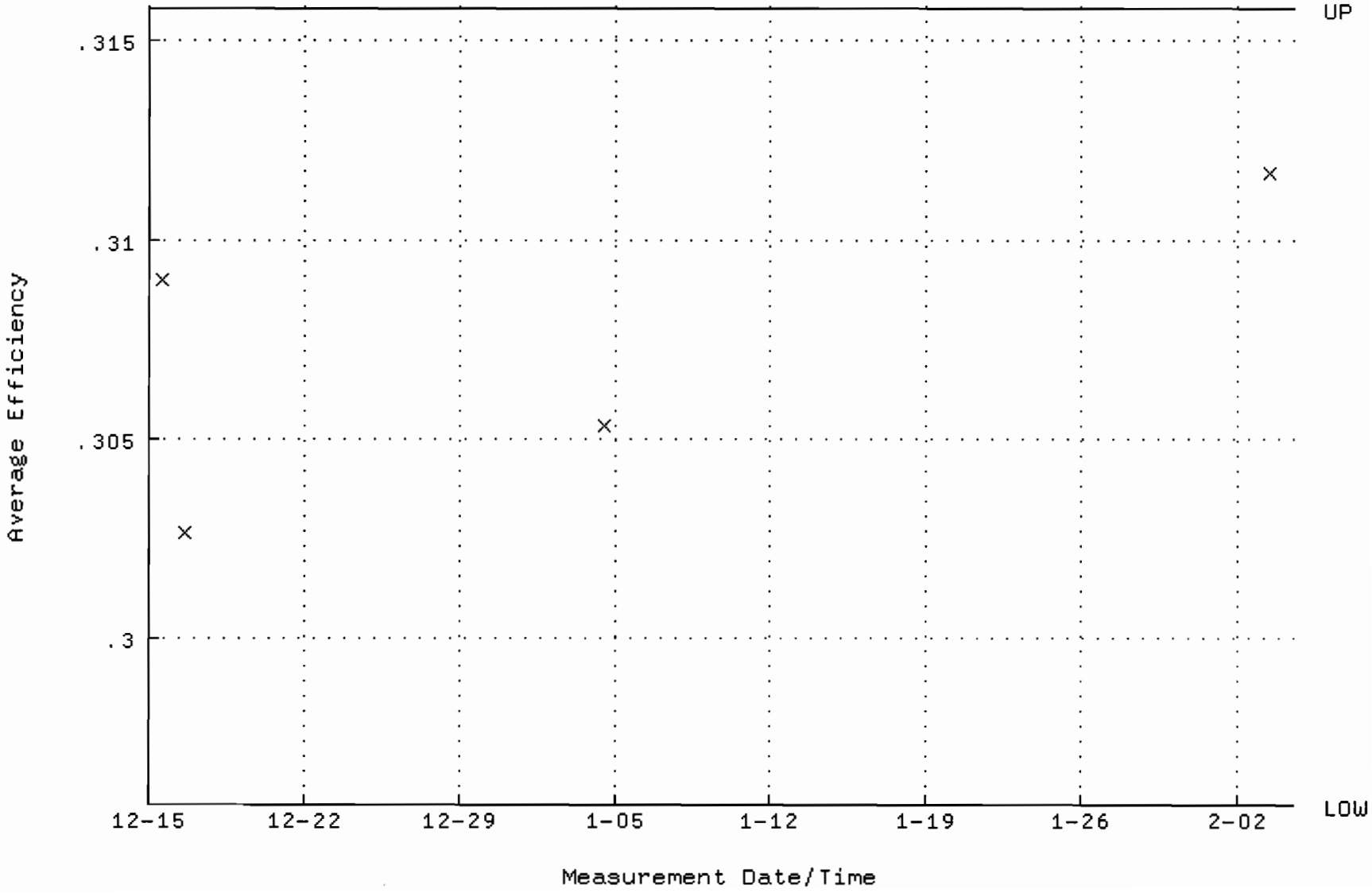
QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 89.0042 through 98.3730



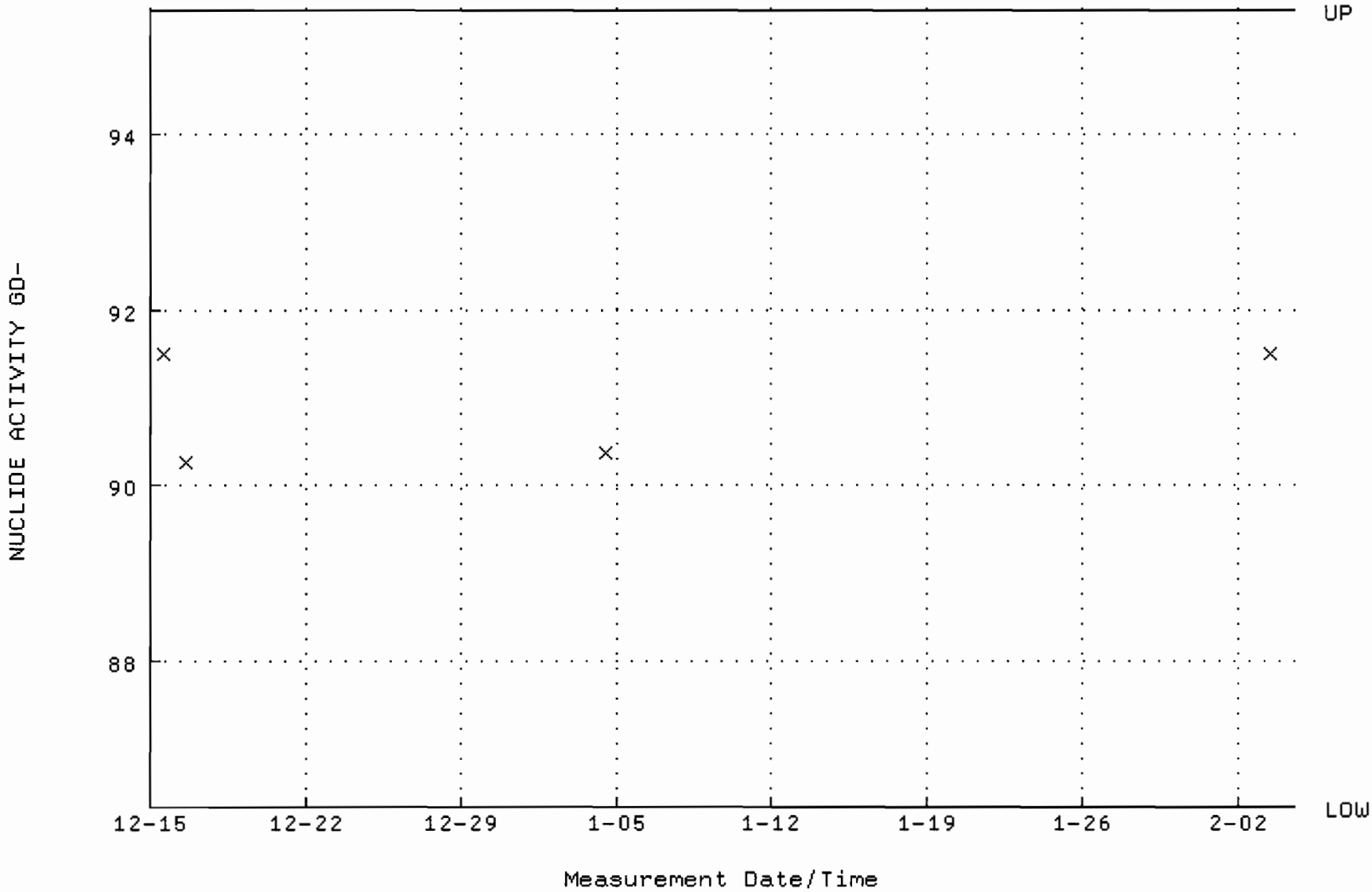
QA filename : DKA100:[ENV_ALPHA.QA.B]B005.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



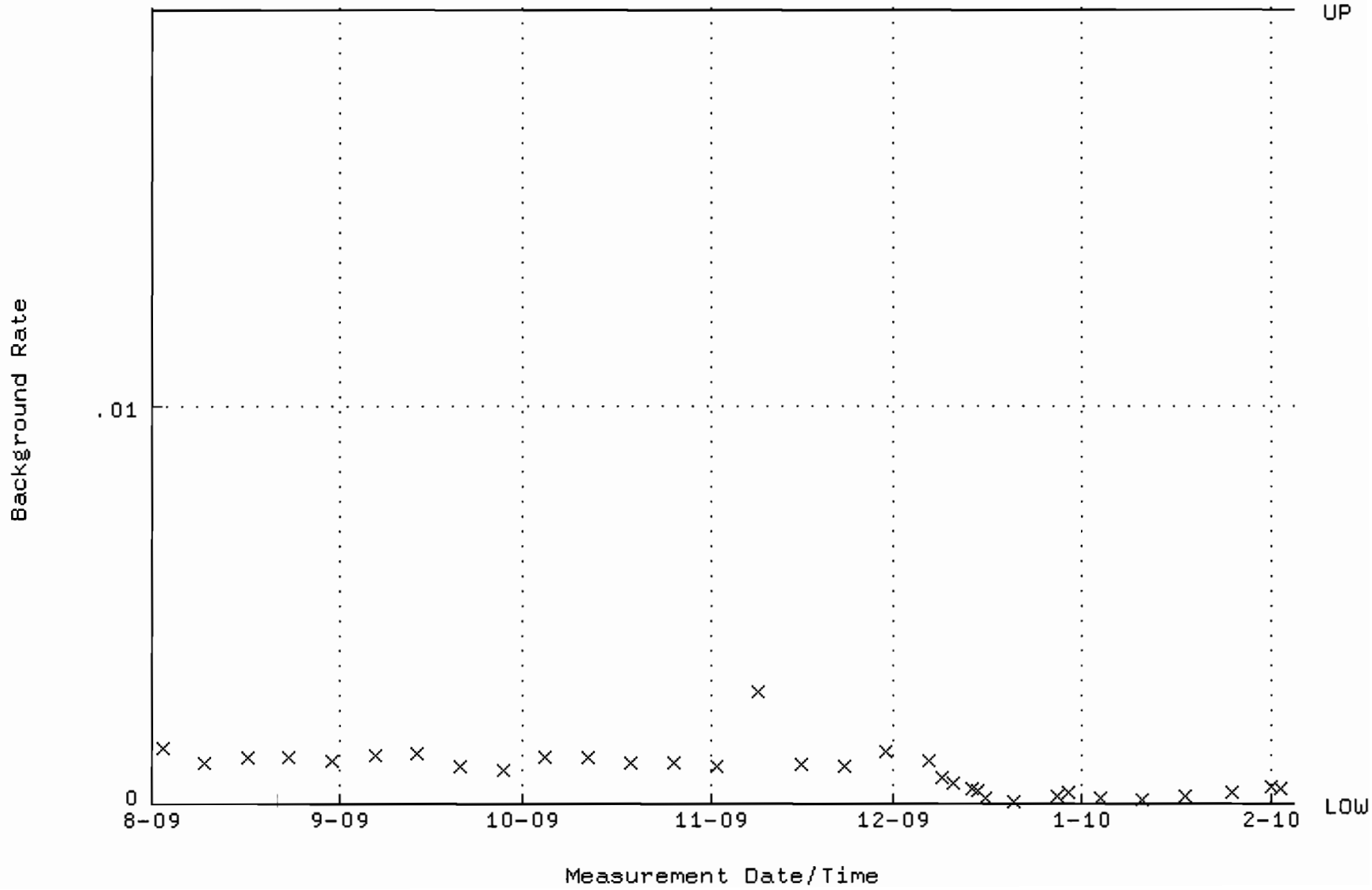
QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295821 through 0.315821



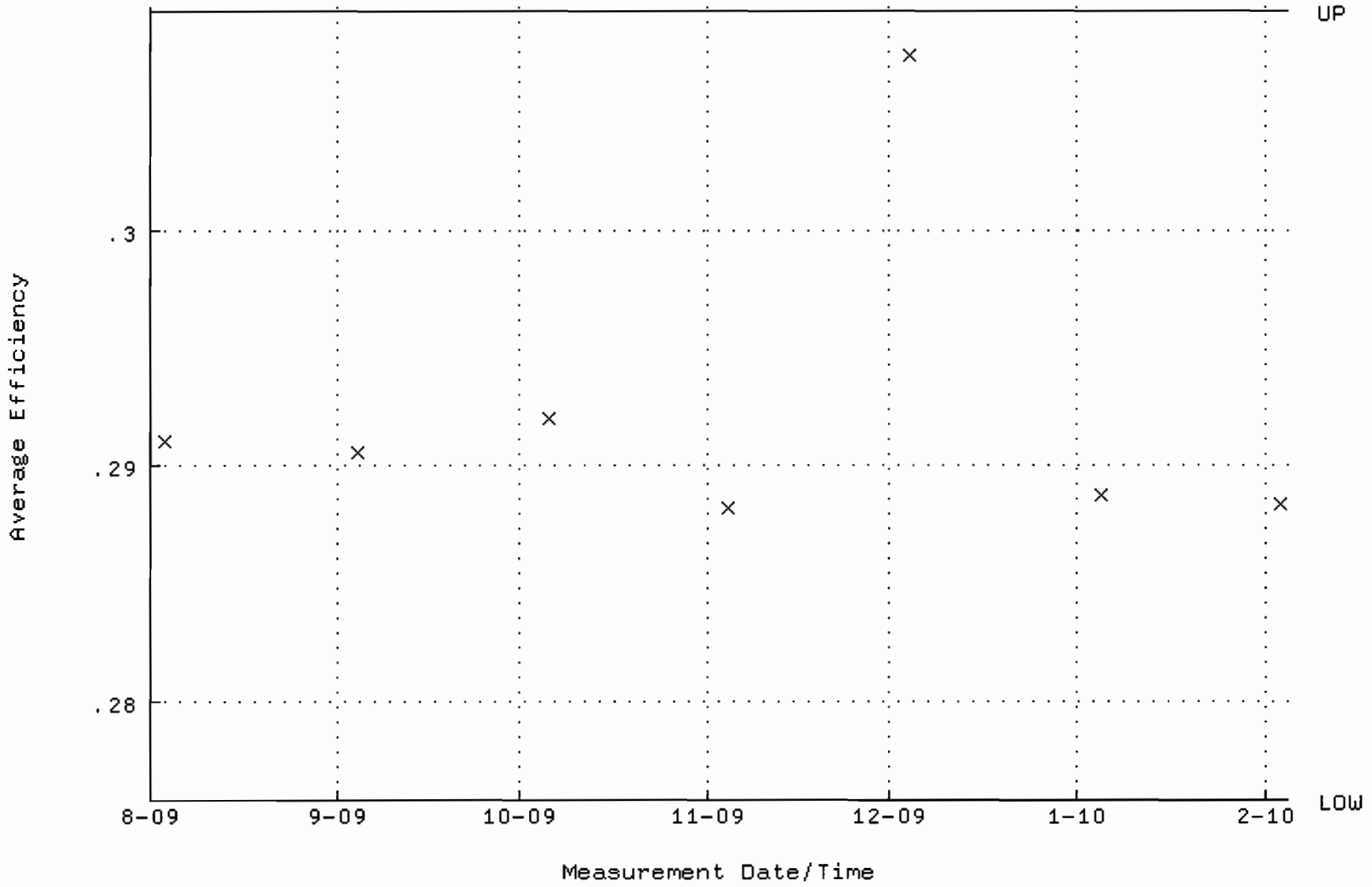
QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 86.3237 through 95.4105



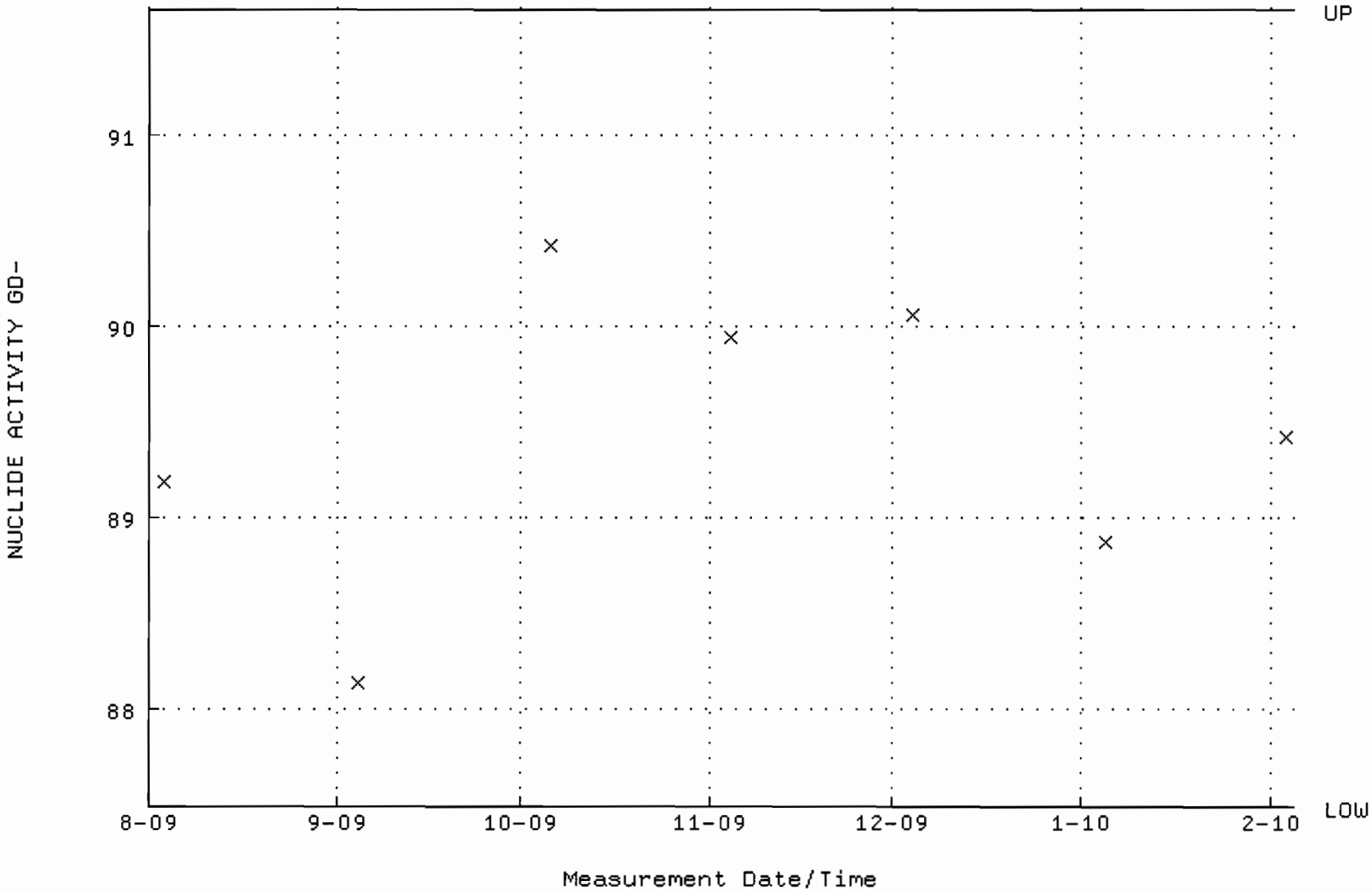
QA filename : DKA100:[ENV_ALPHA.QA.B]B006.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



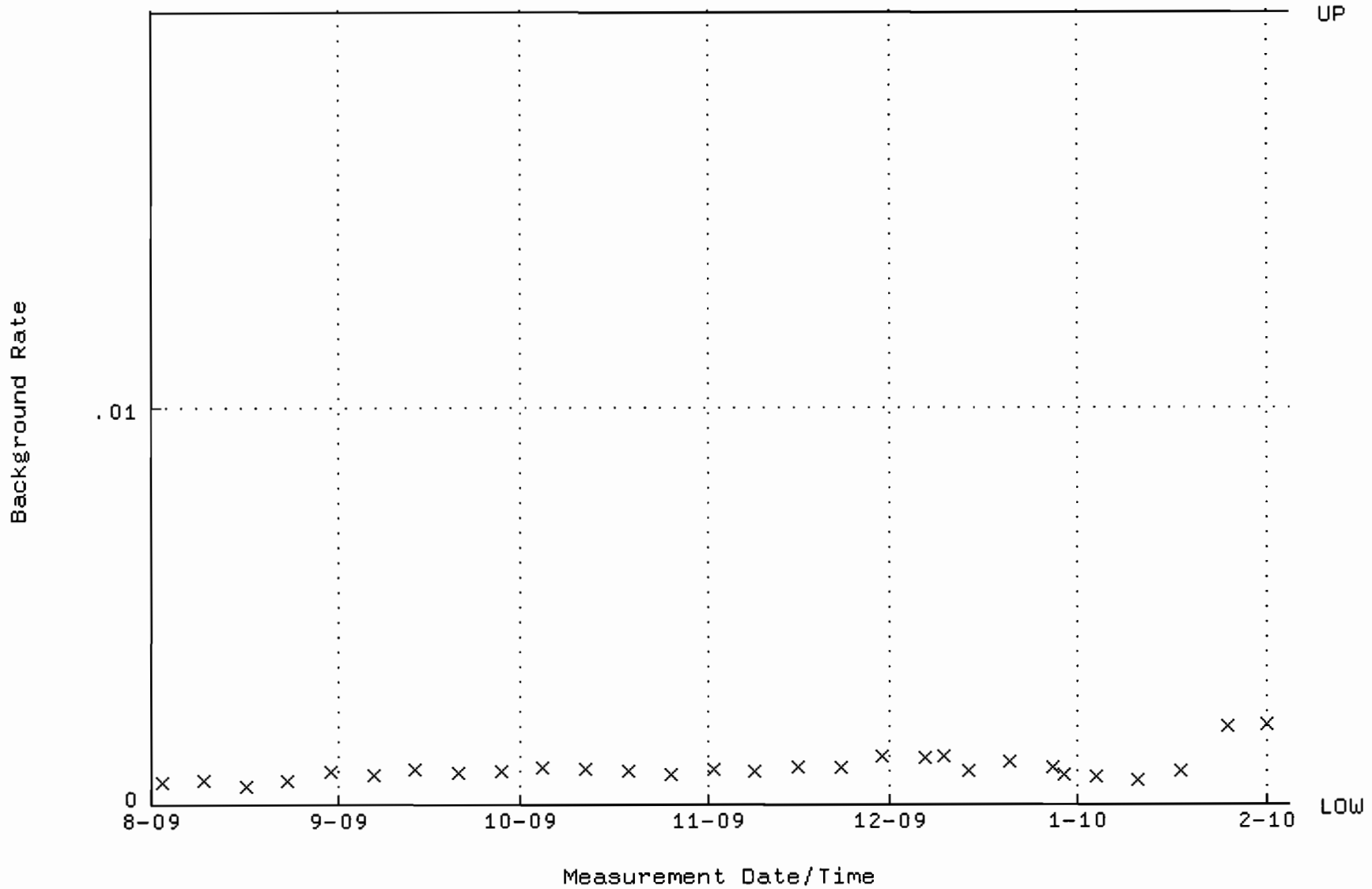
QA filename : DKA100:[ENV_ALPHA.QA.W]W019.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.275780 through 0.309420



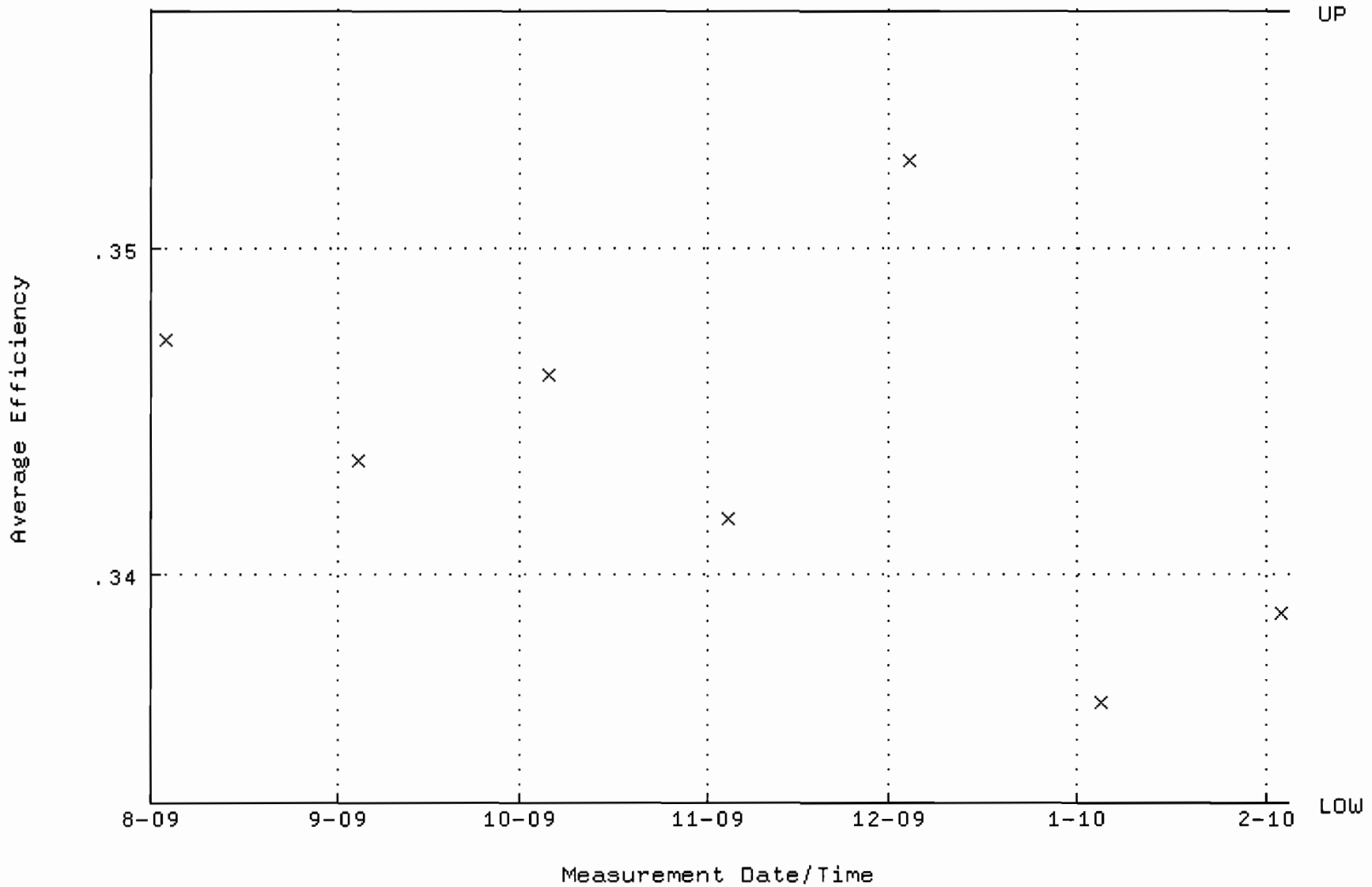
QA filename : DKA100:[ENV_ALPHA.QA.W]W019.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.4952 through 91.6516



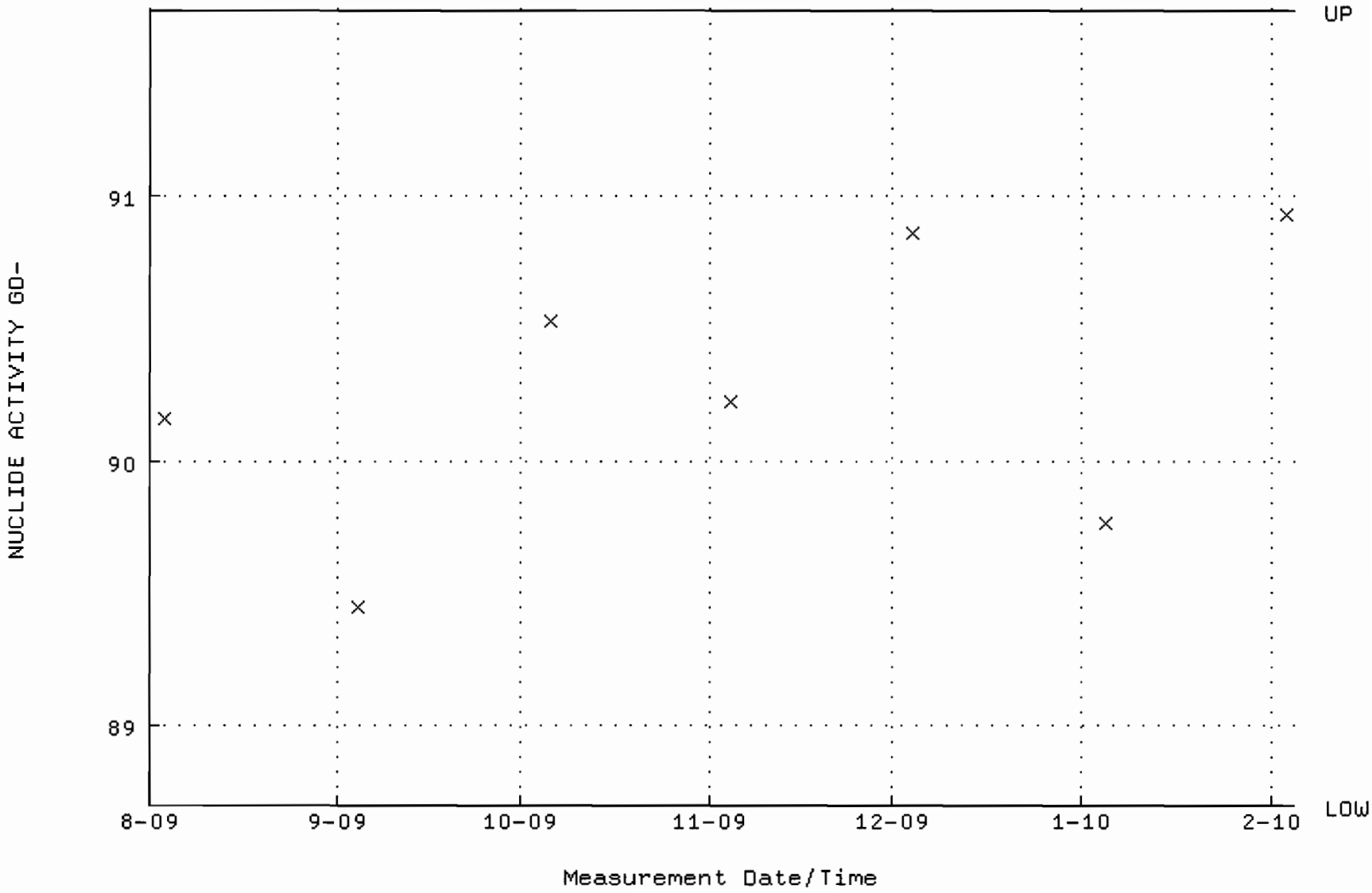
QA filename : DKA100:[ENV_ALPHA.QA.B]B019.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



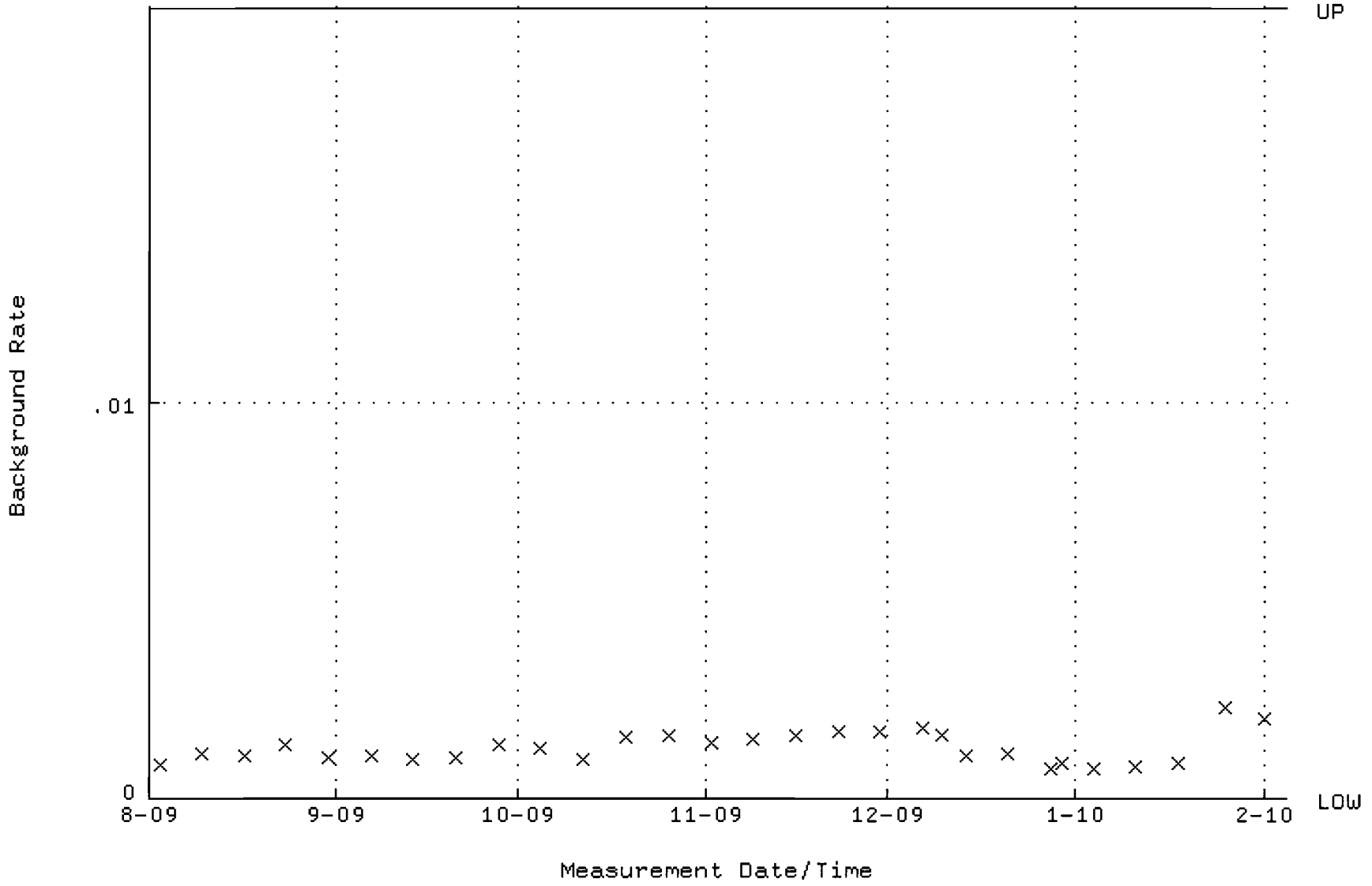
QA filename : DKA100:[ENV_ALPHA.QA.W]W020.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.332991 through 0.357265



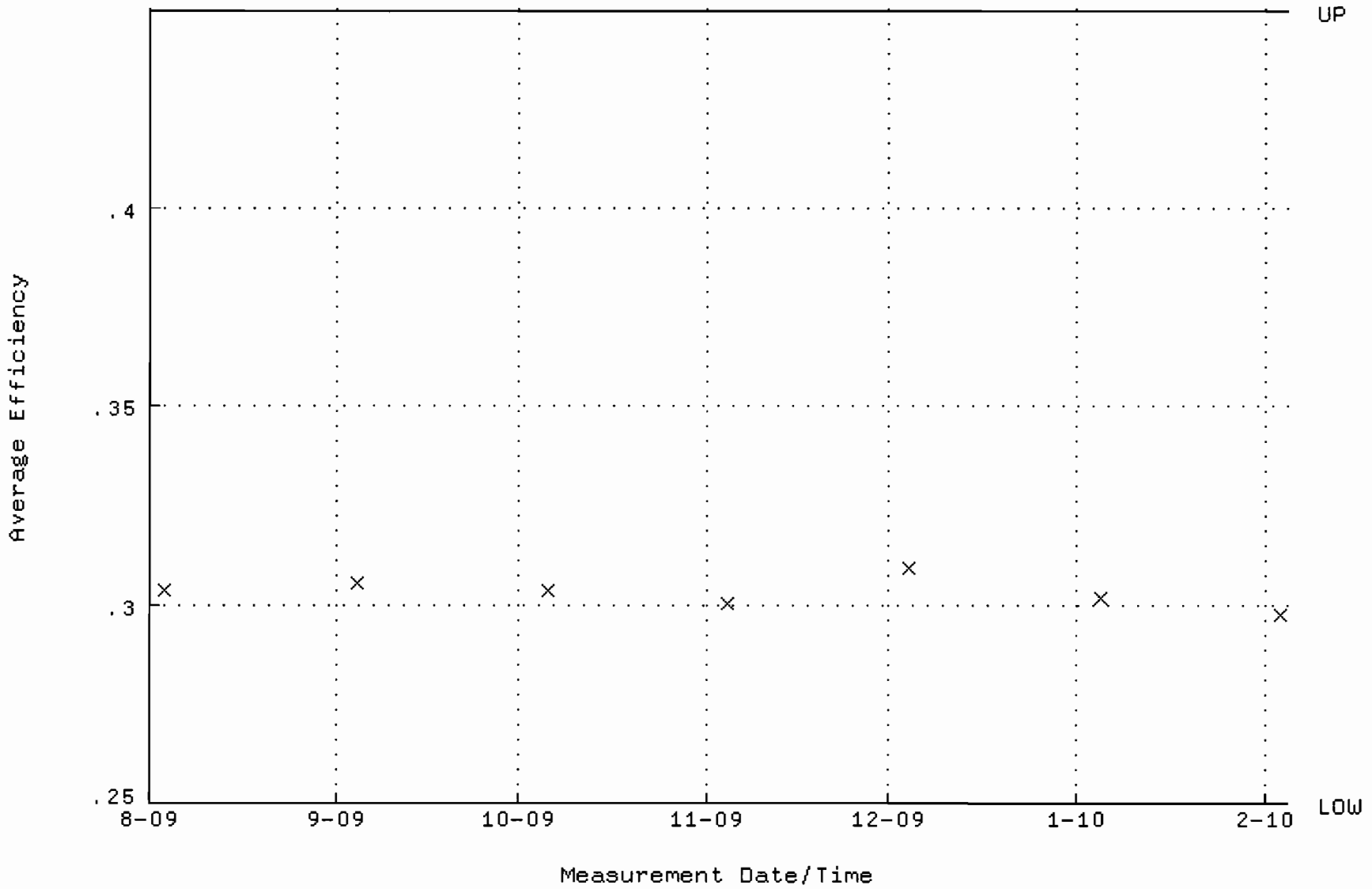
QA filename : DKA100:[ENV_ALPHA.QA.W]W020.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 88.6996 through 91.6996



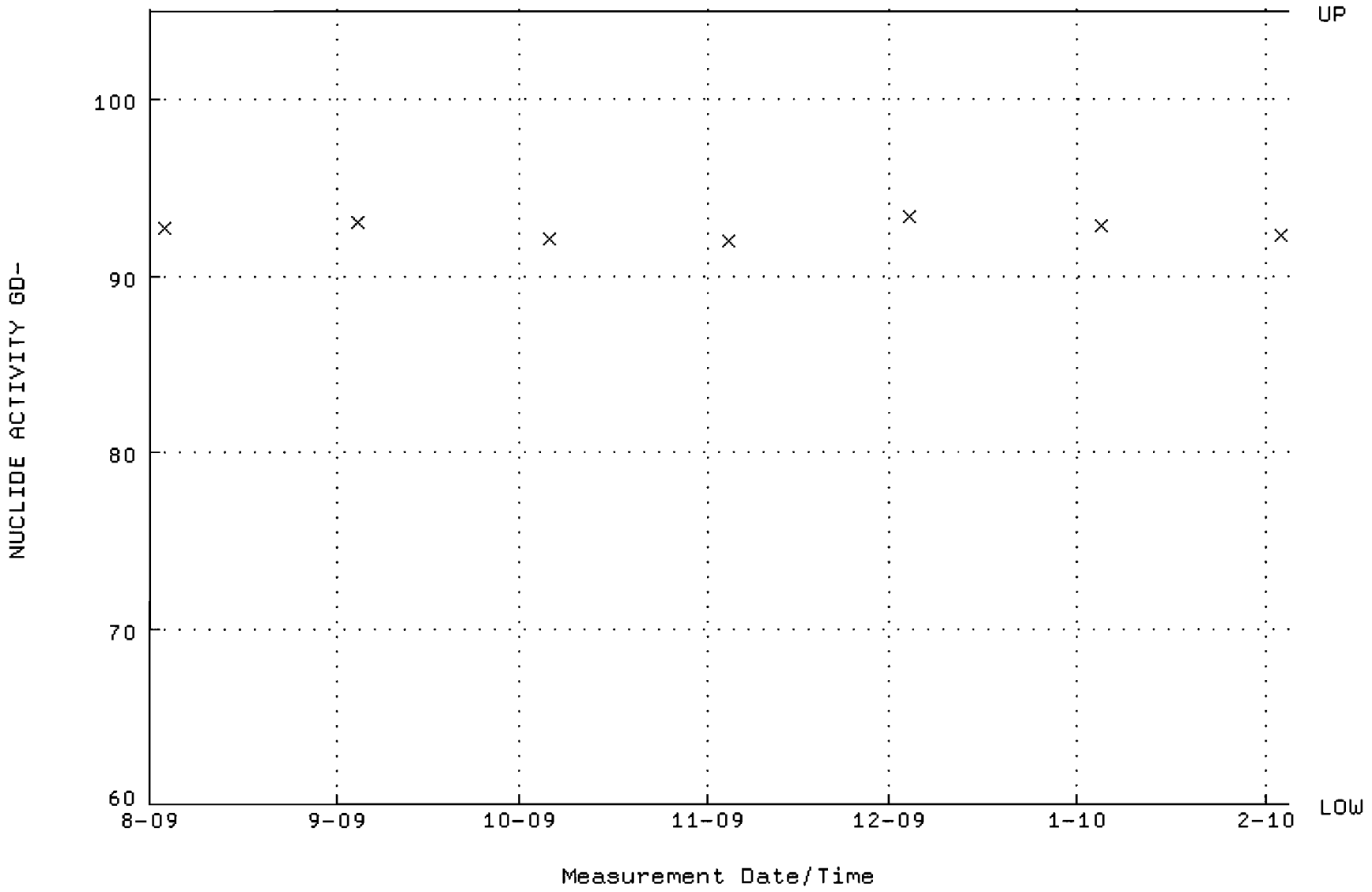
QA filename : DKA100:[ENV_ALPHA.QA.B]B020.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



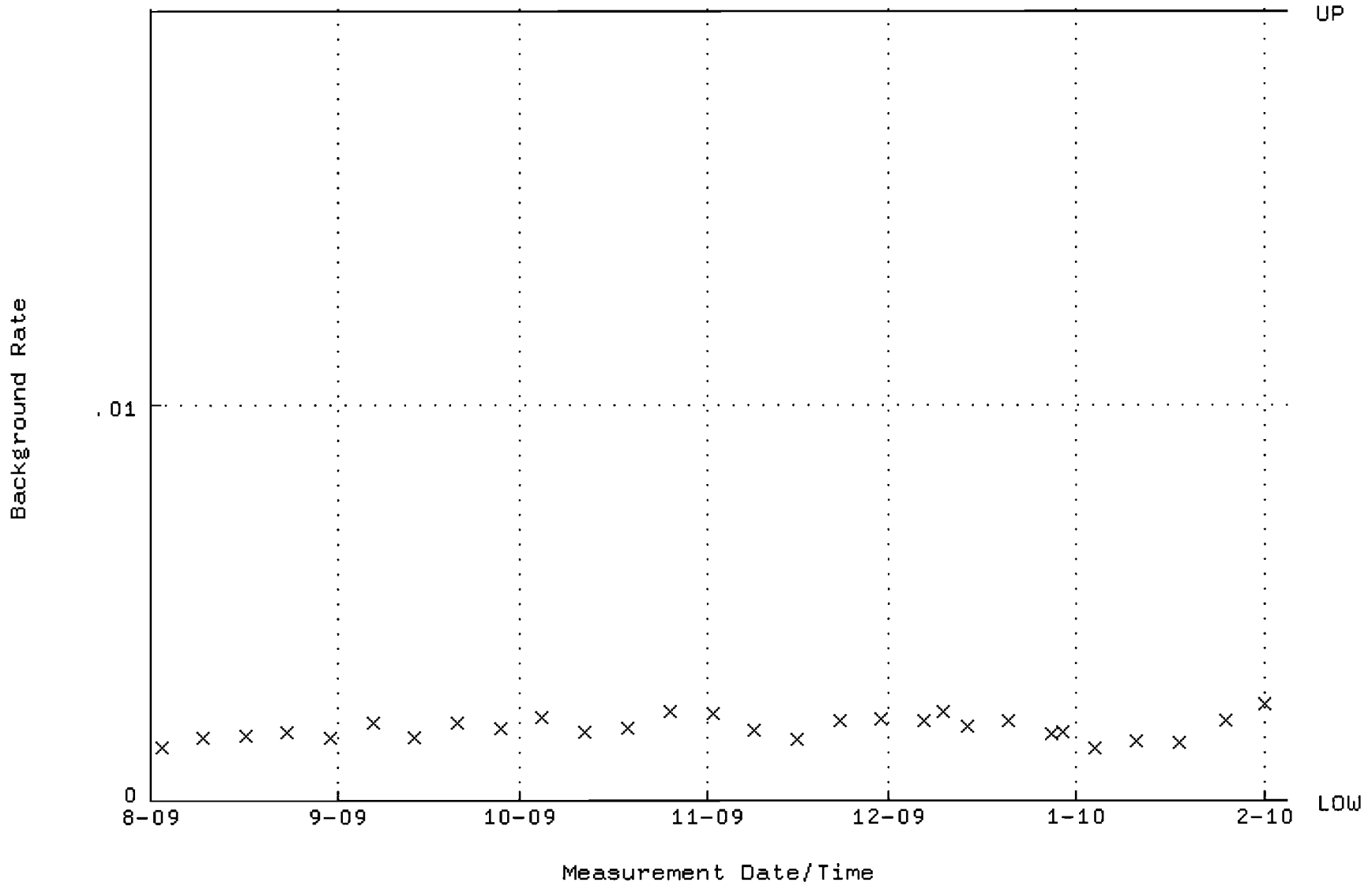
QA filename : DKA100:[ENV_ALPHA.QA.W]W021.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000



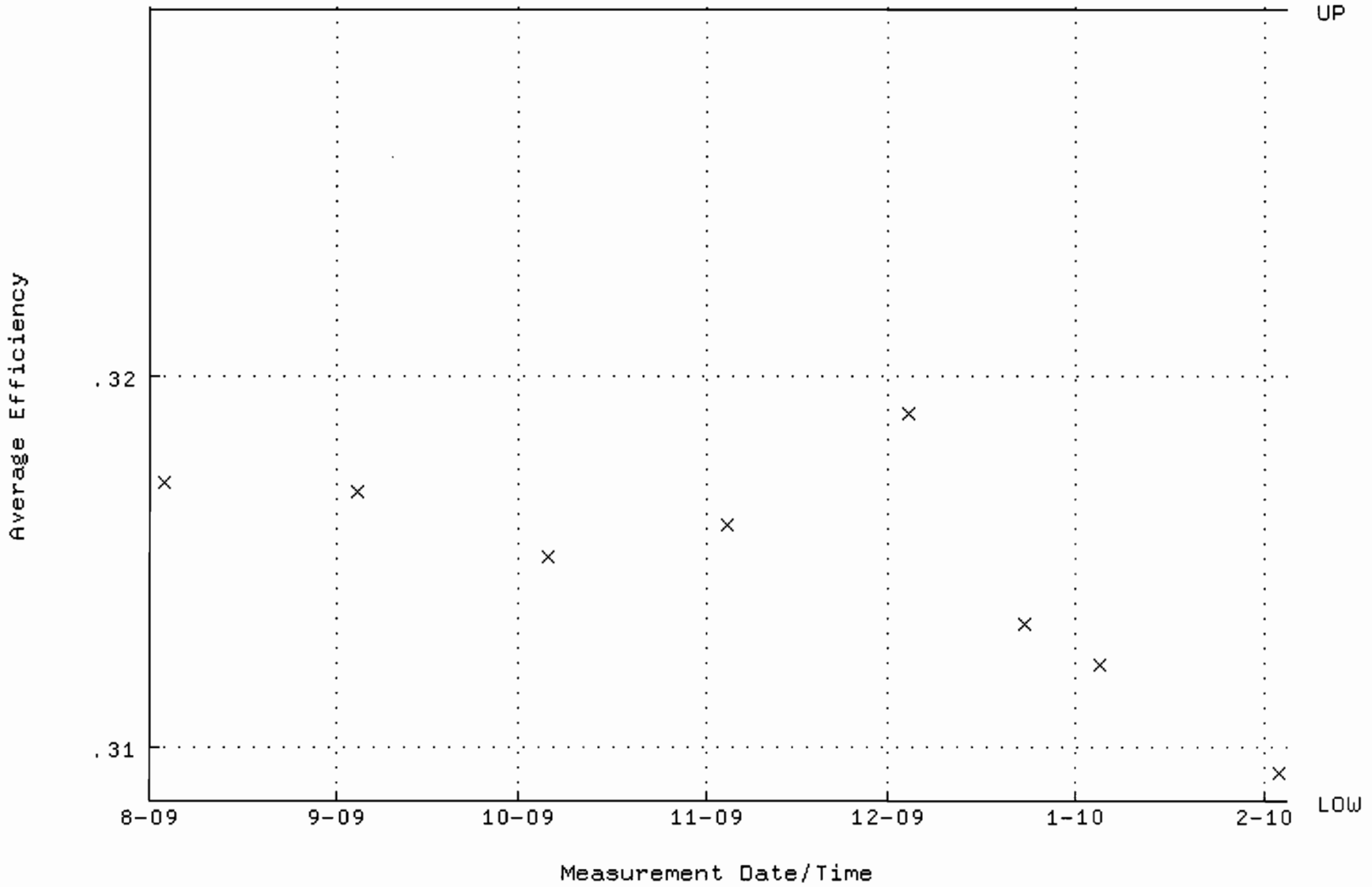
QA filename : DKA100:[ENV_ALPHA.QA.W]W021.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000



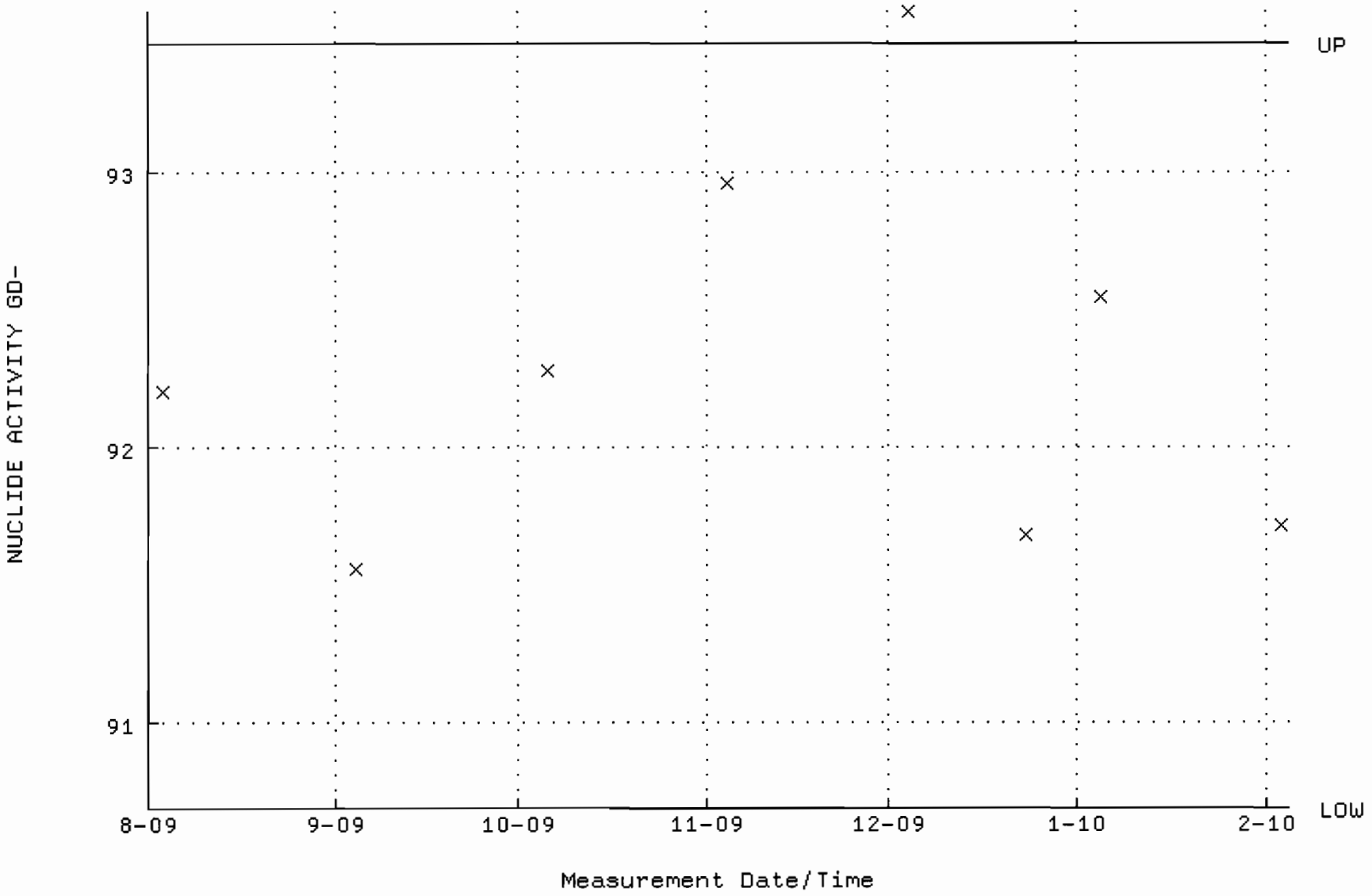
QA filename : DKA100:[ENV_ALPHA.QA.B]B021.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



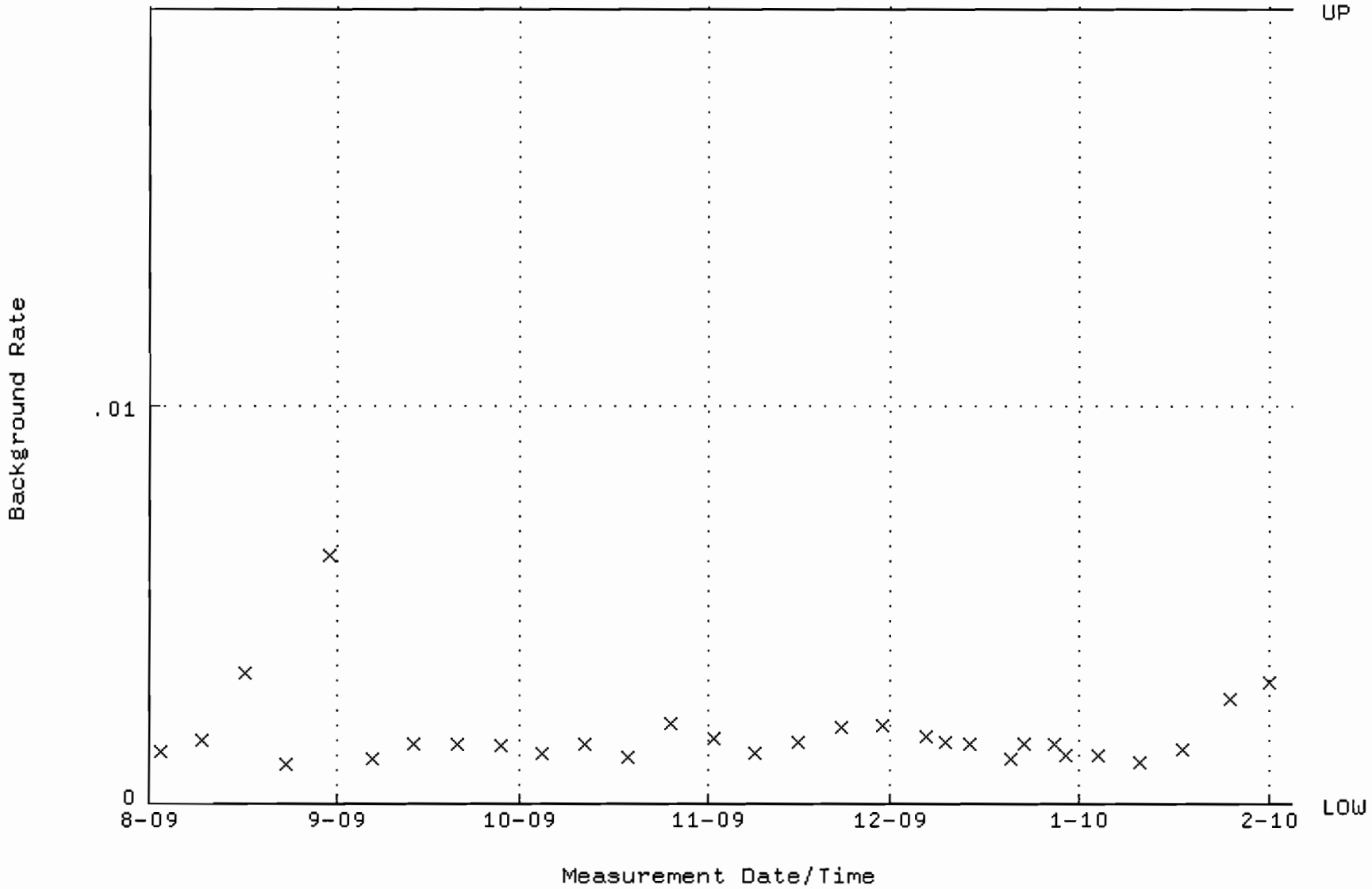
QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.308540 through 0.329898



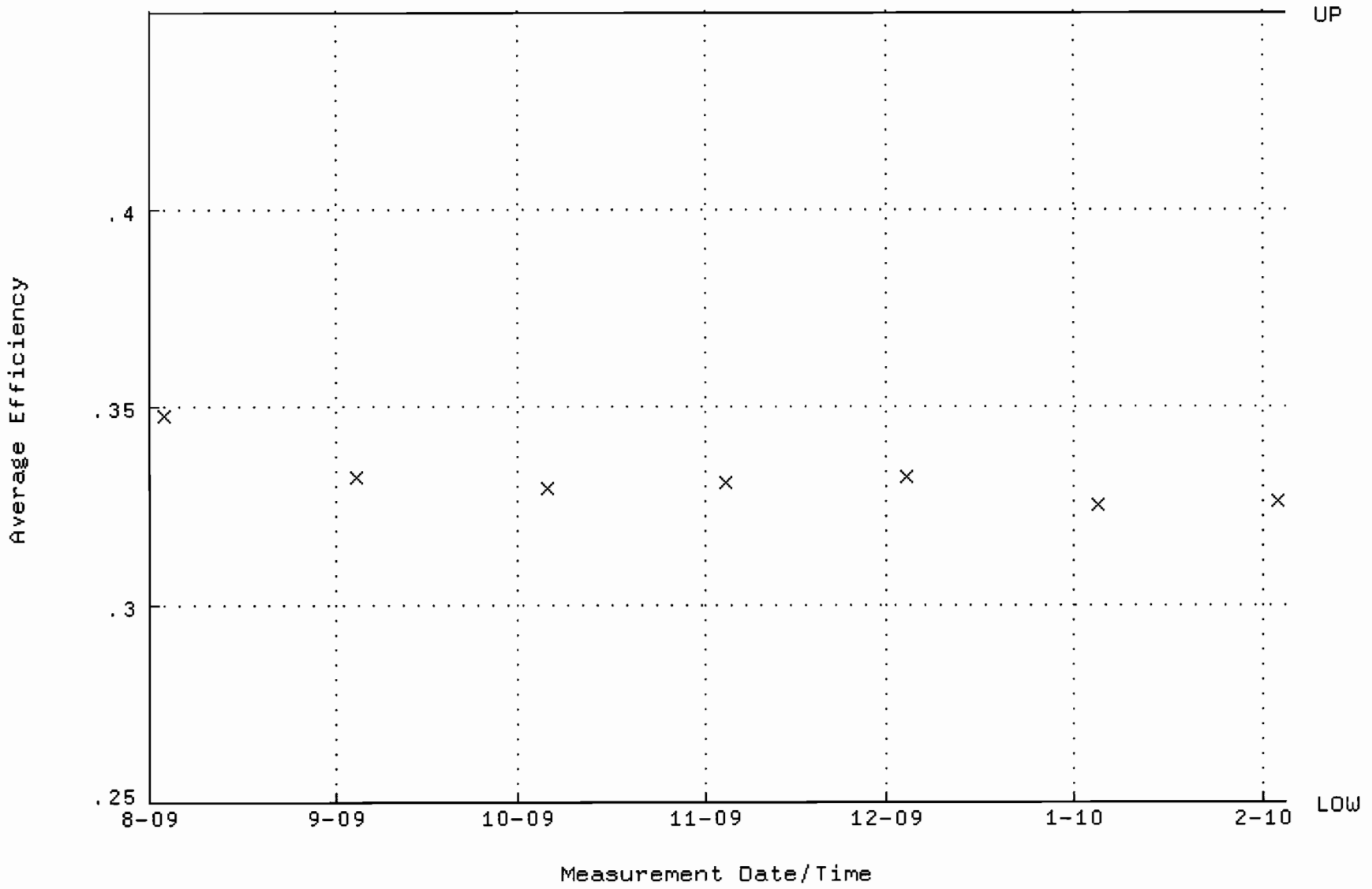
QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 90.6887 through 93.4713



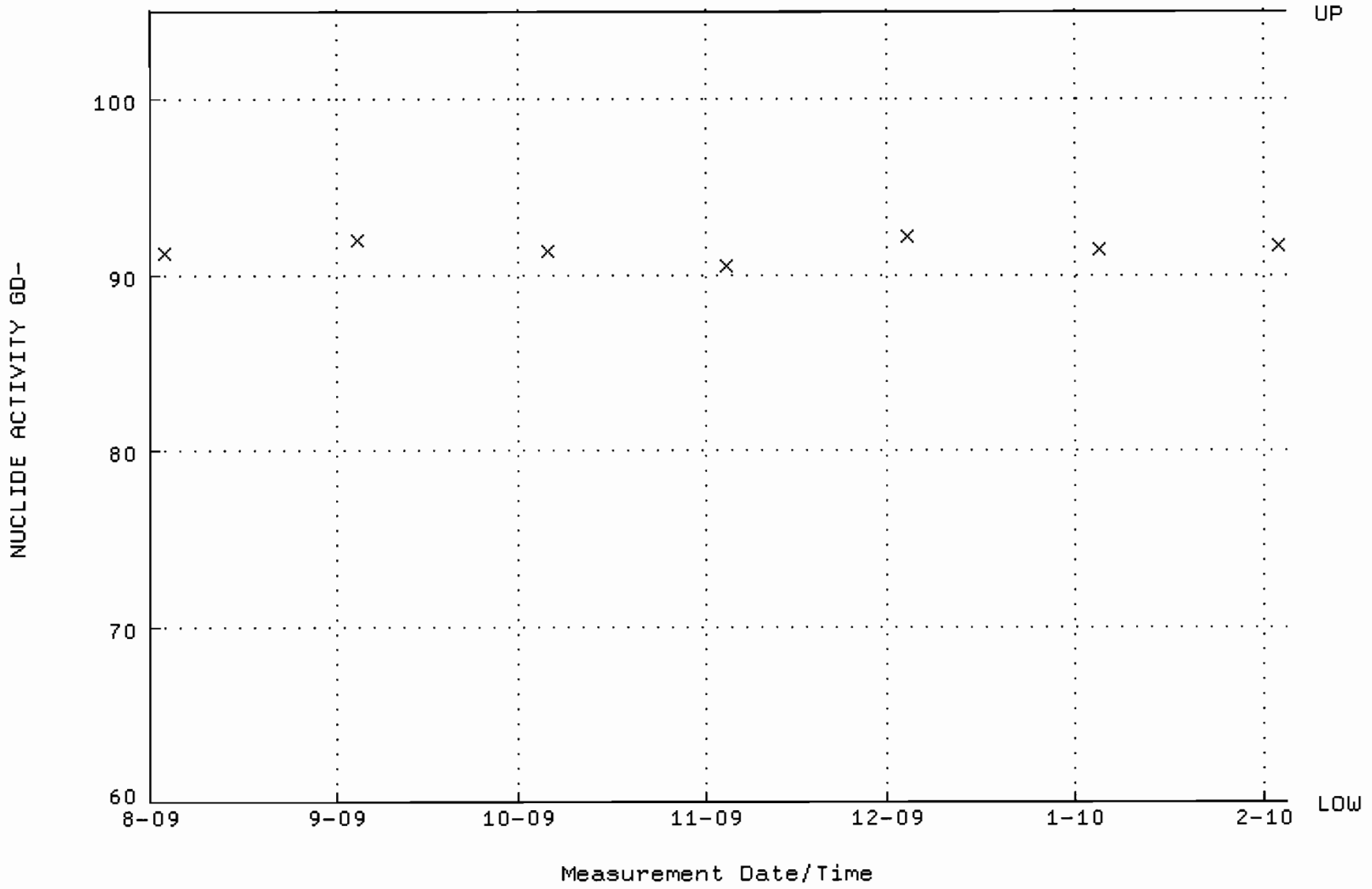
QA filename : DKA100:[ENV_ALPHA.QA.B]B022.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



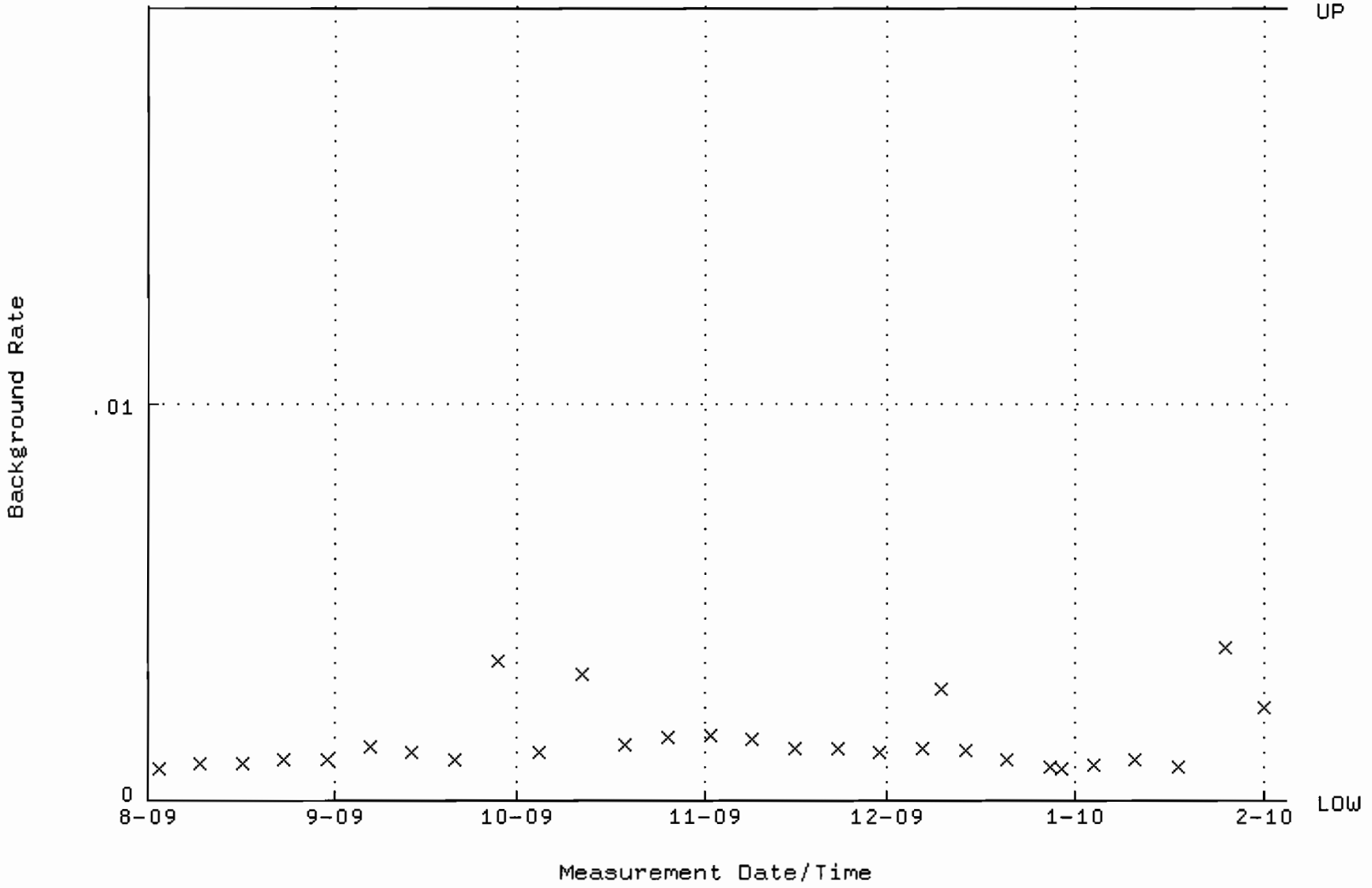
QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000



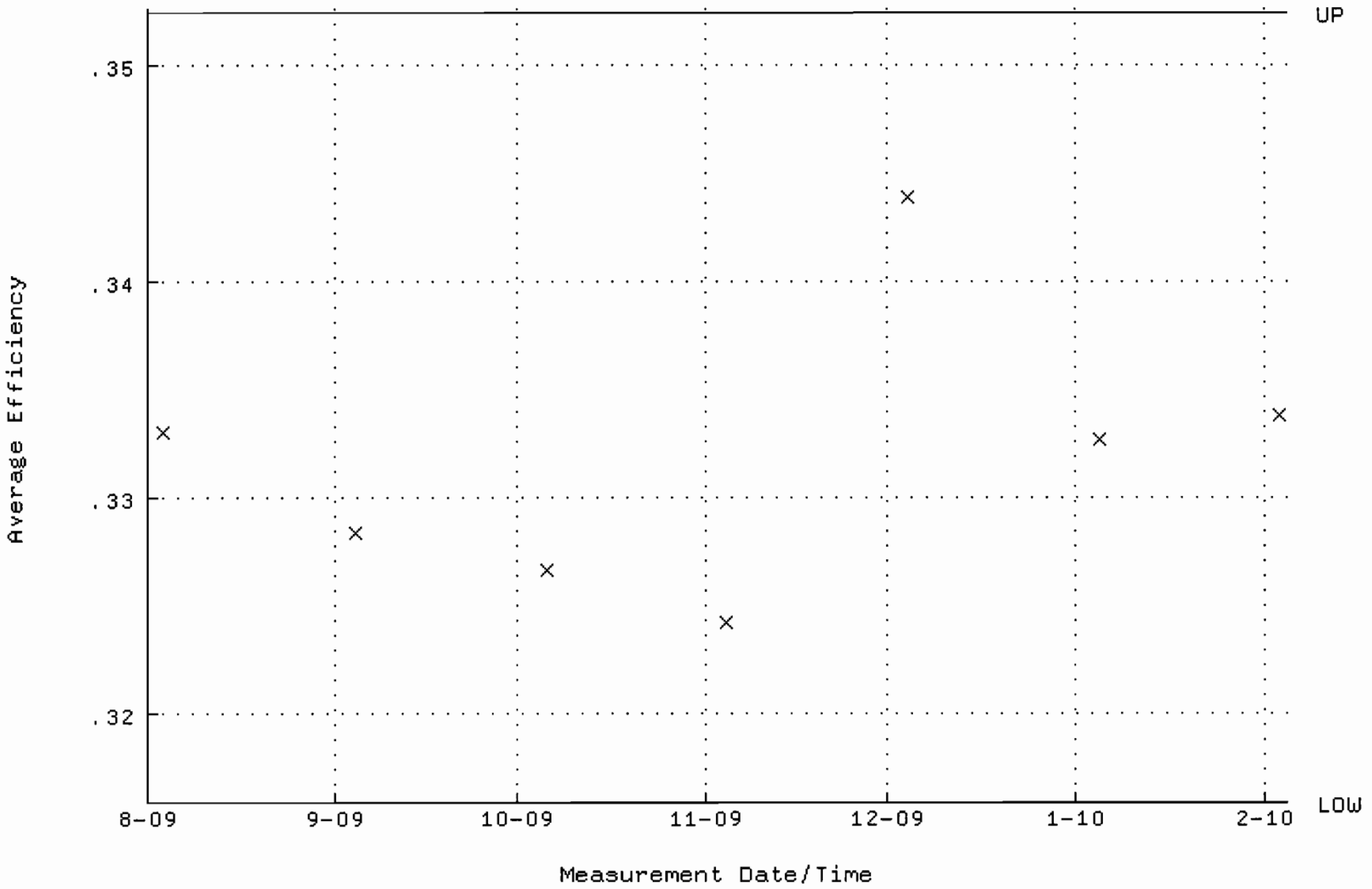
QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000



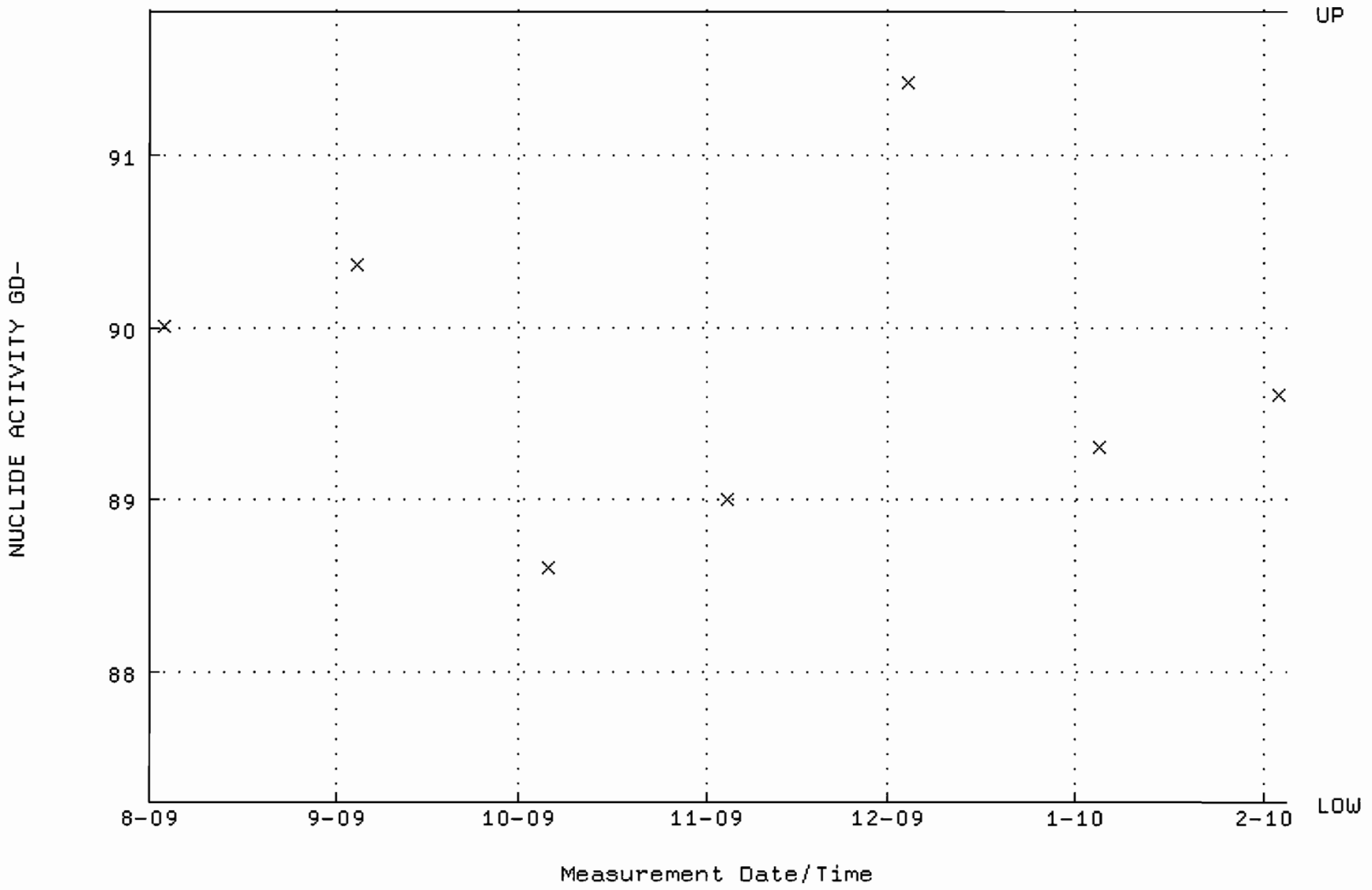
QA filename : DKA100:[ENV_ALPHA.QA.B]B023.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



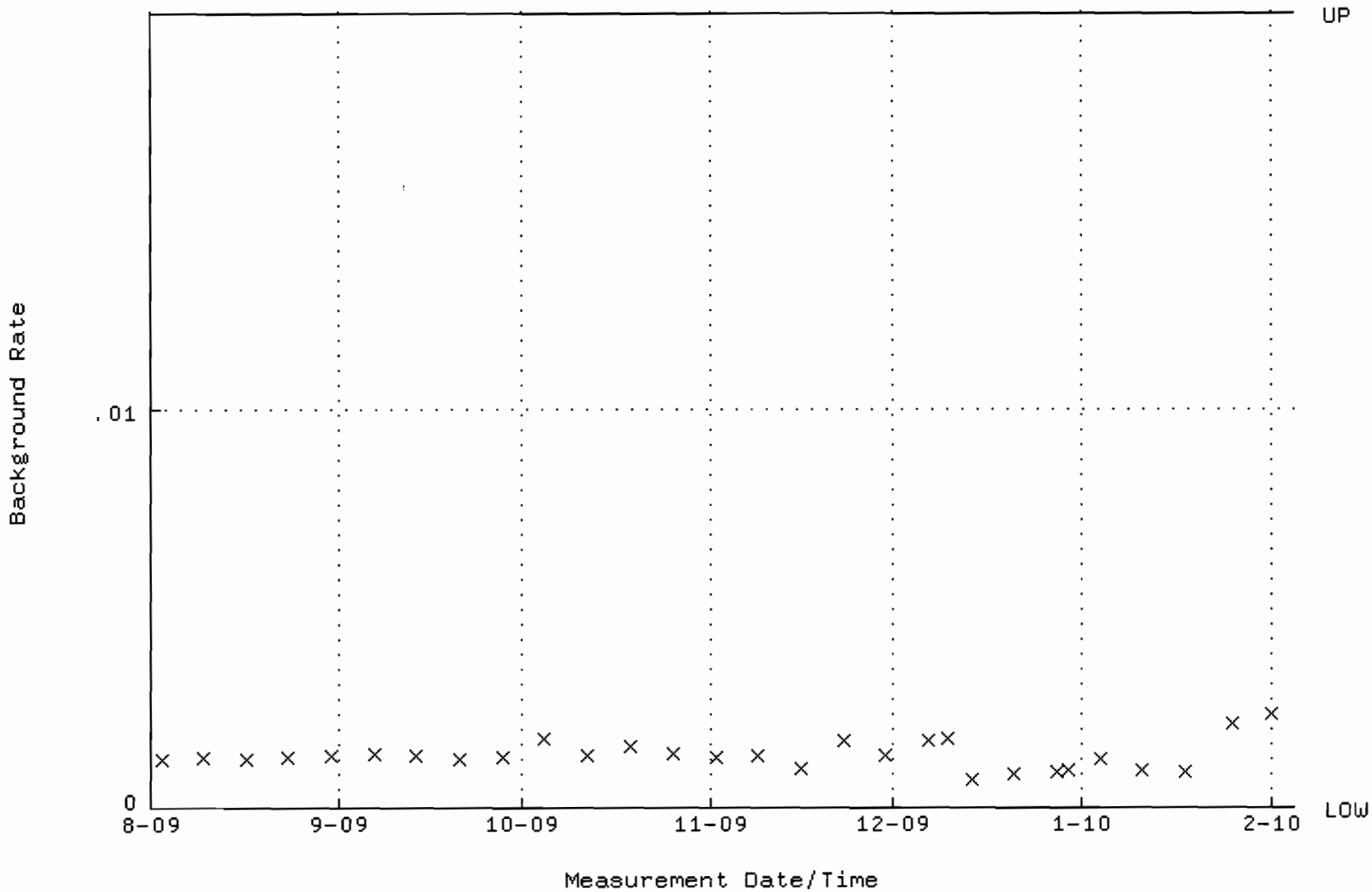
QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.315820 through 0.352494



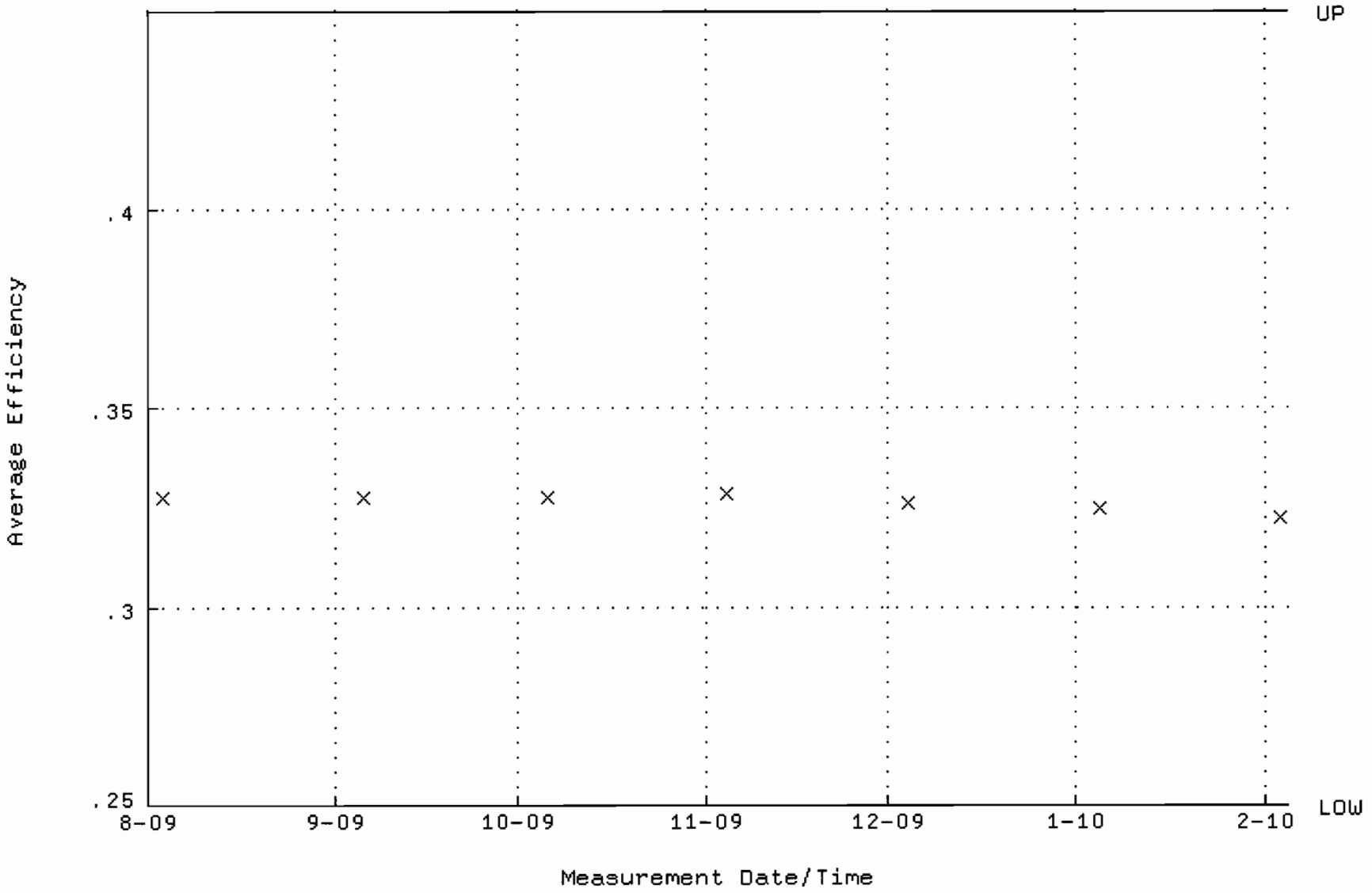
QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:38 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.2434 through 91.8289



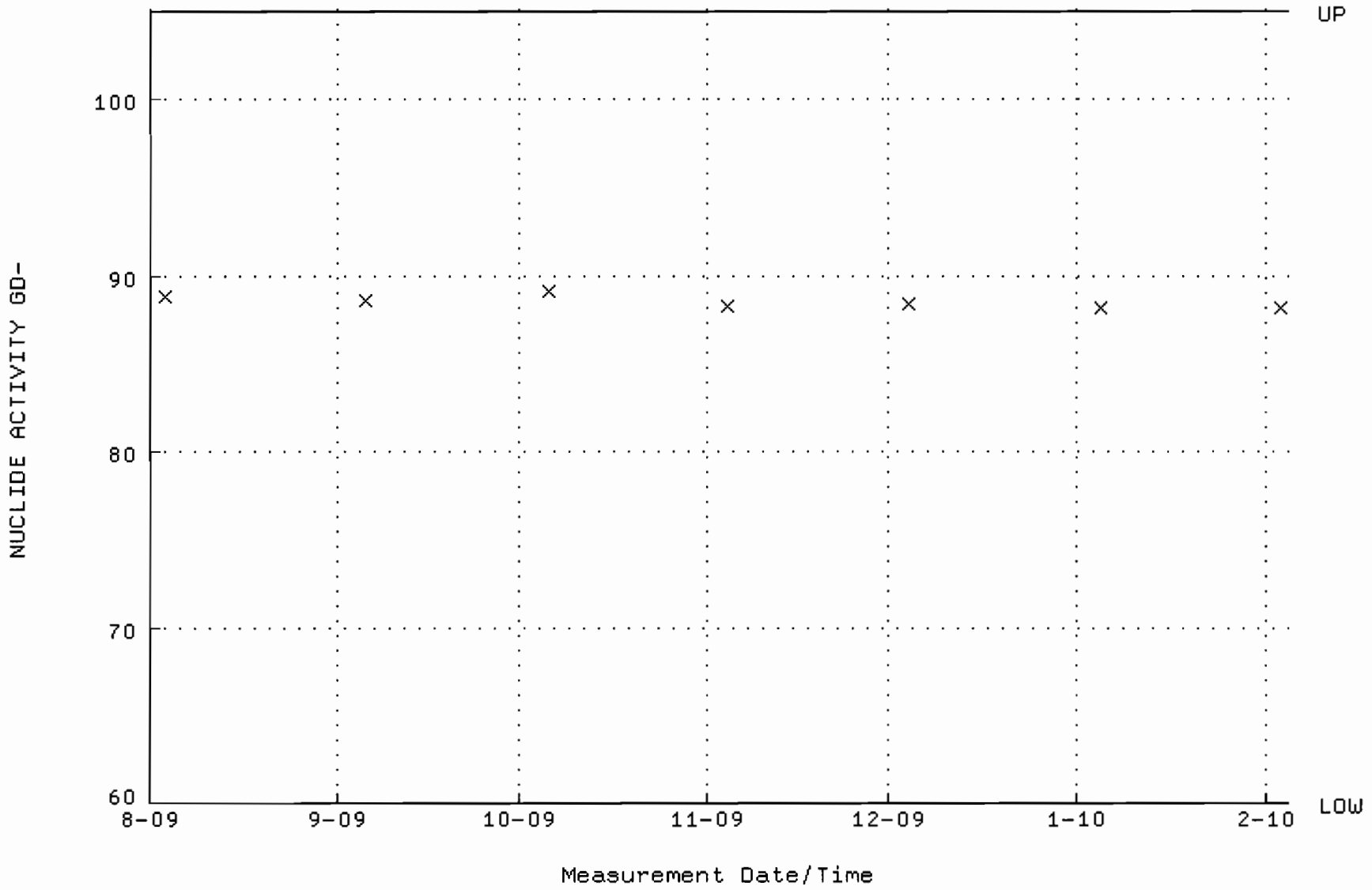
QA filename : DKA100:[ENV_ALPHA.QA.B]B024.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



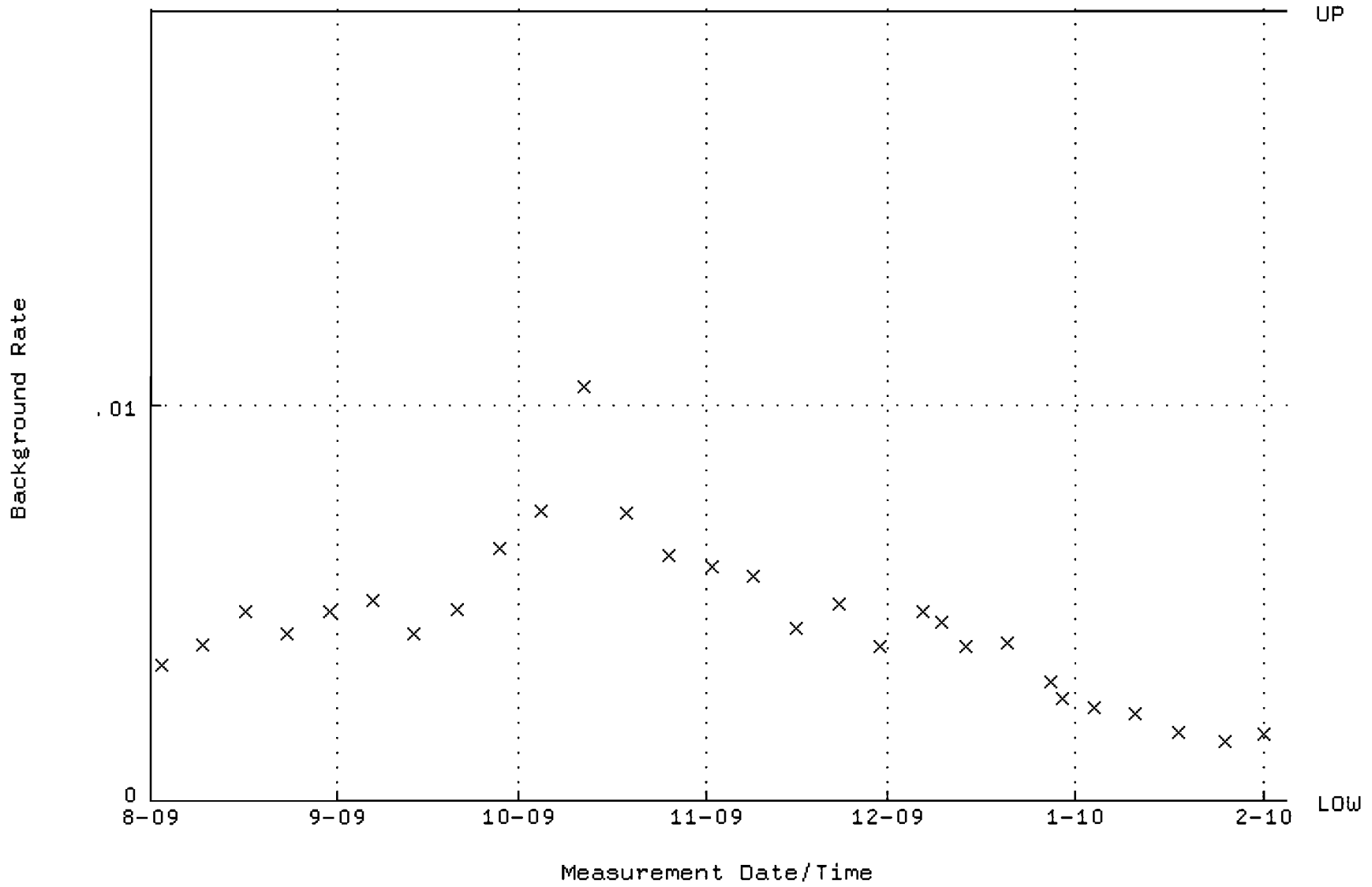
QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000



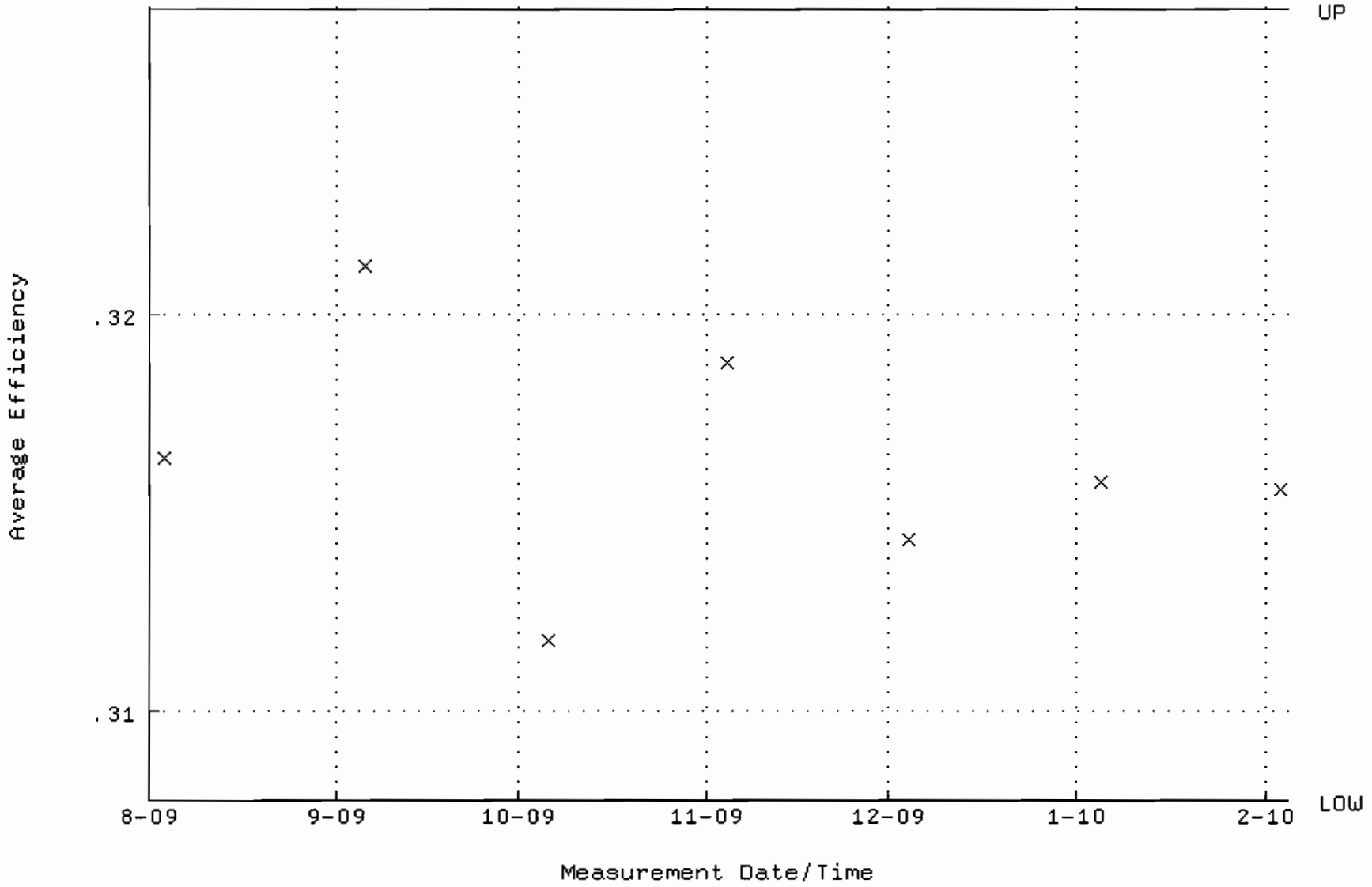
QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000



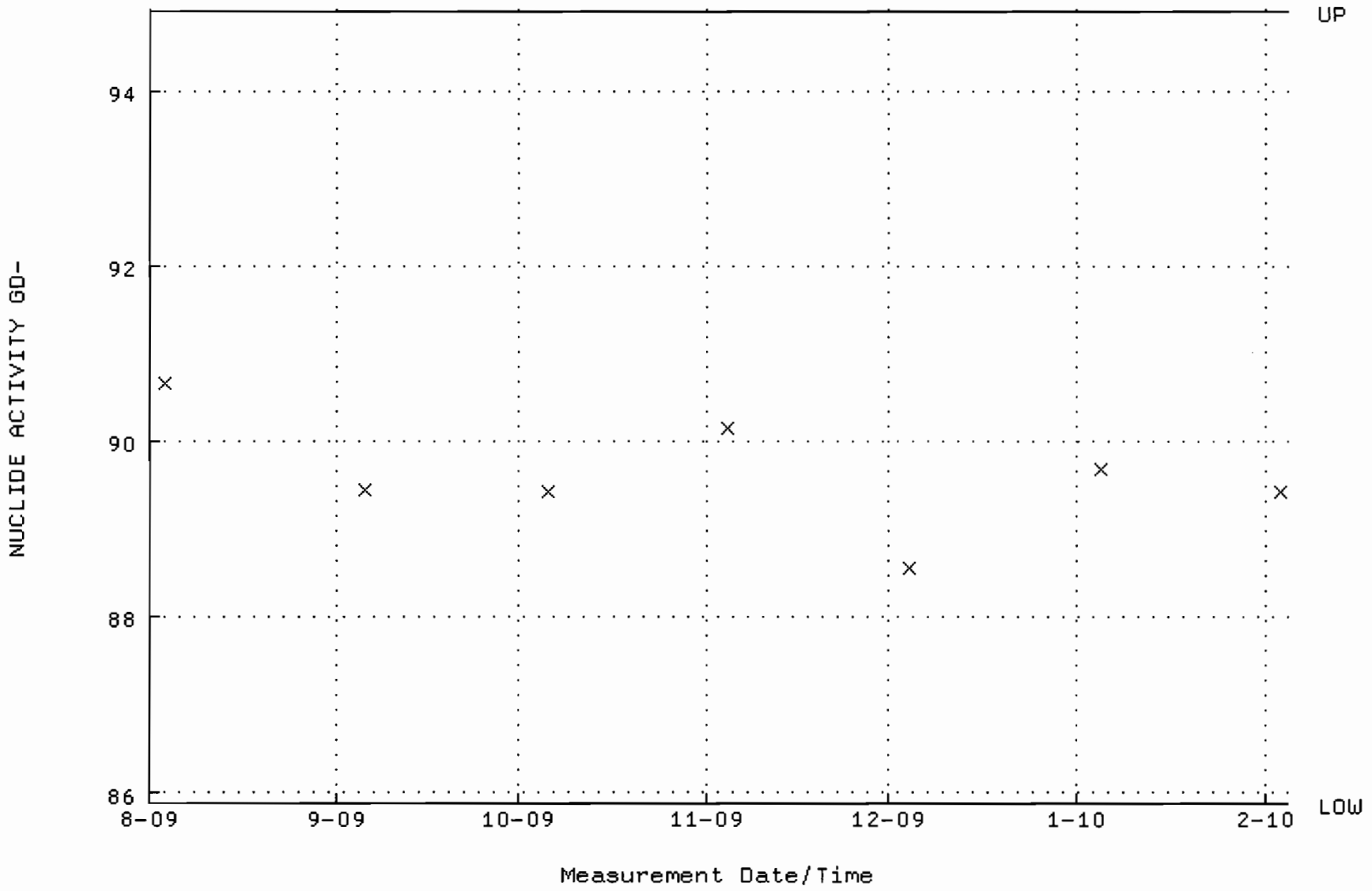
QA filename : DKA100:[ENV_ALPHA.QA.B]B025.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



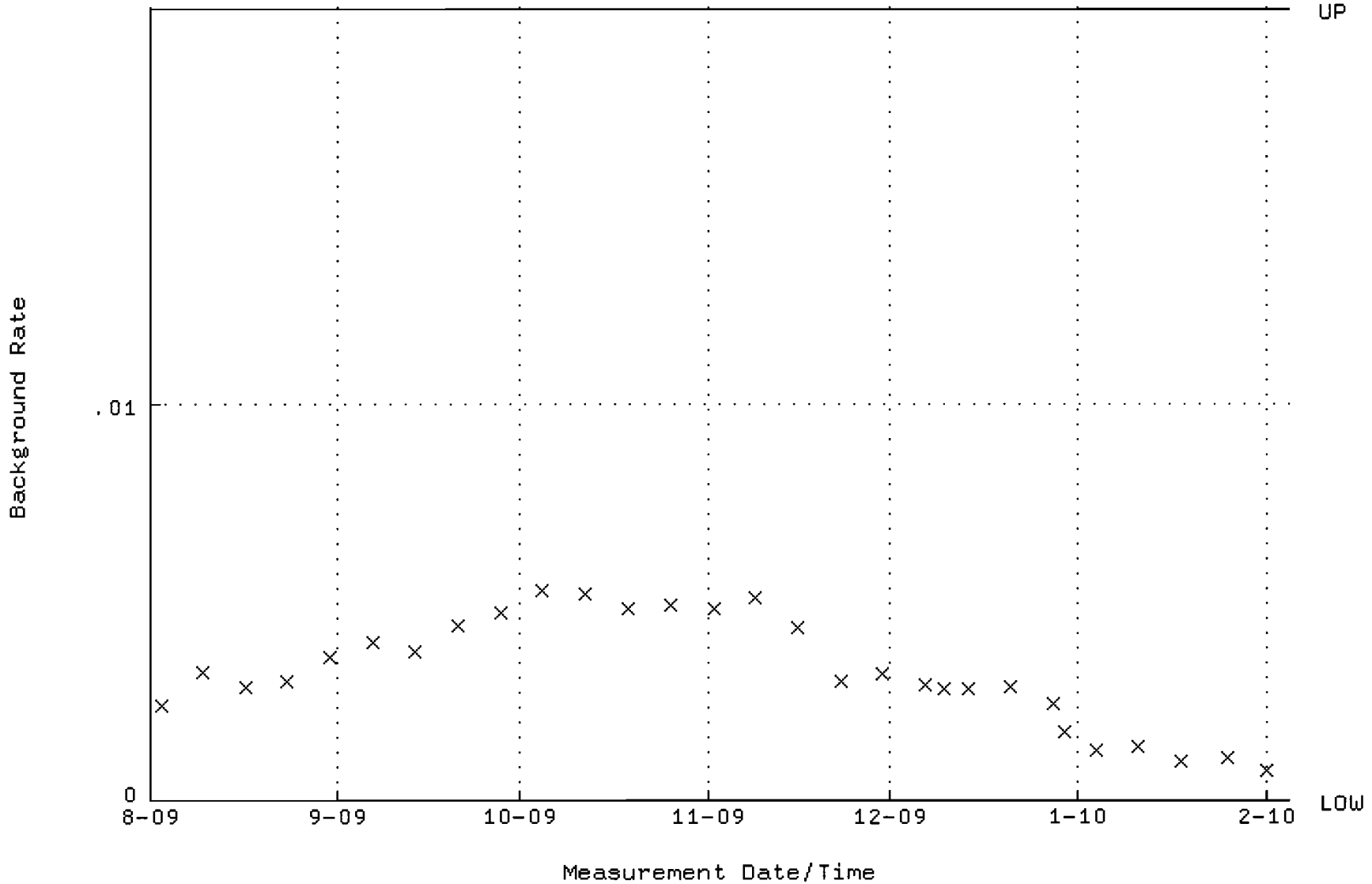
QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.307728 through 0.327728



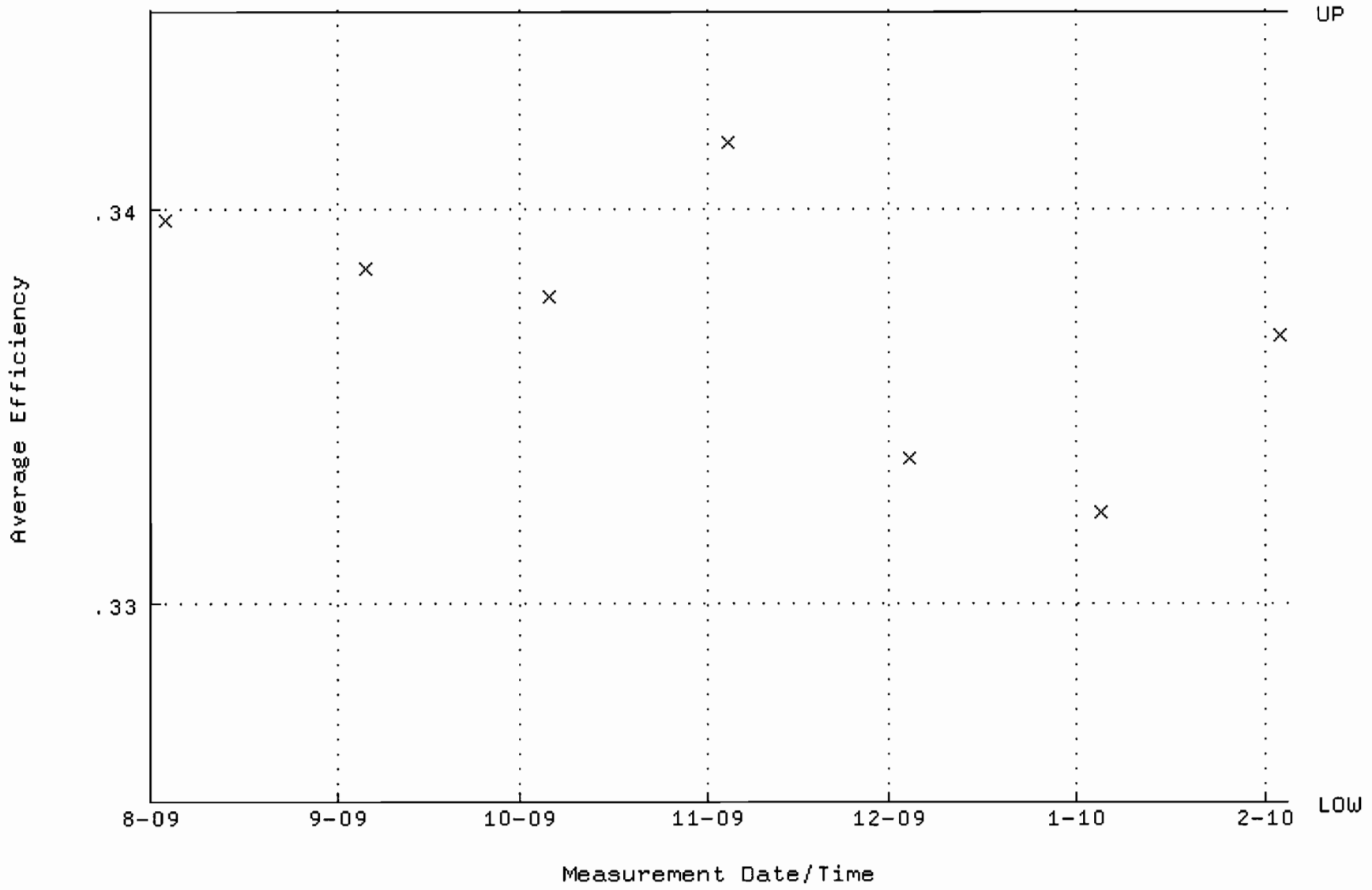
QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8763 through 94.9159



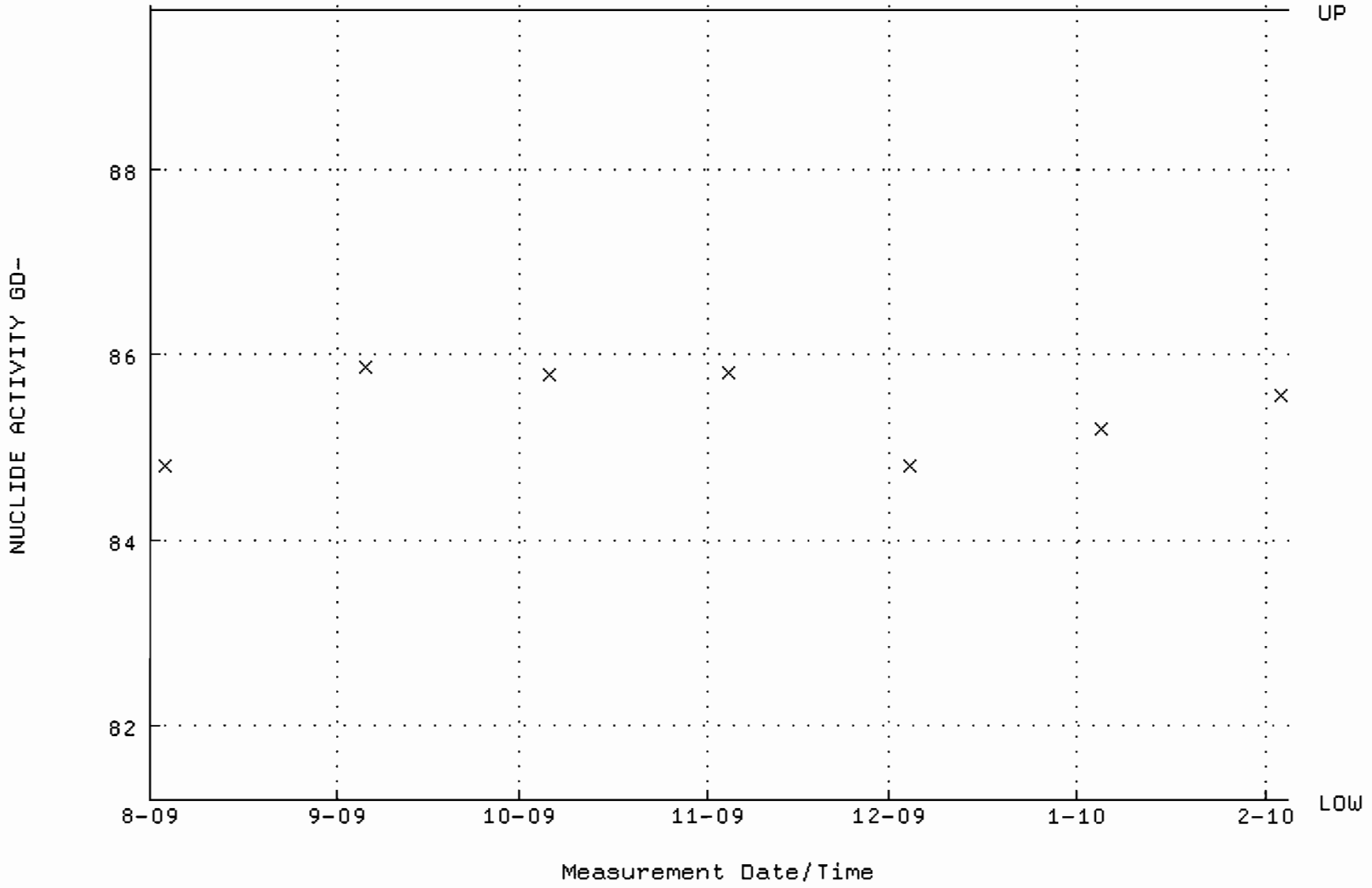
QA filename : DKA100:[ENV_ALPHA.QA.B]B026.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



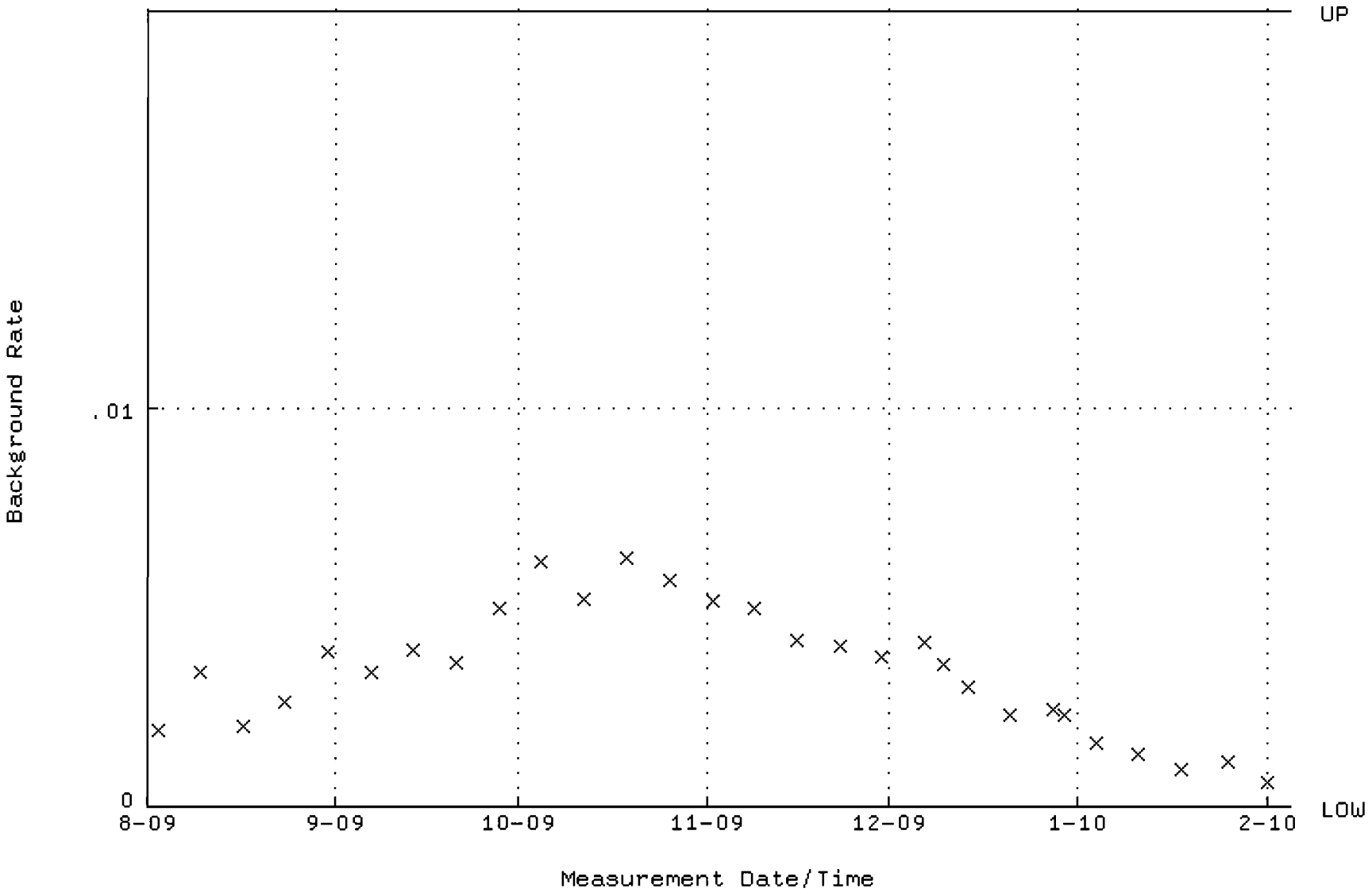
QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.324980 through 0.344980



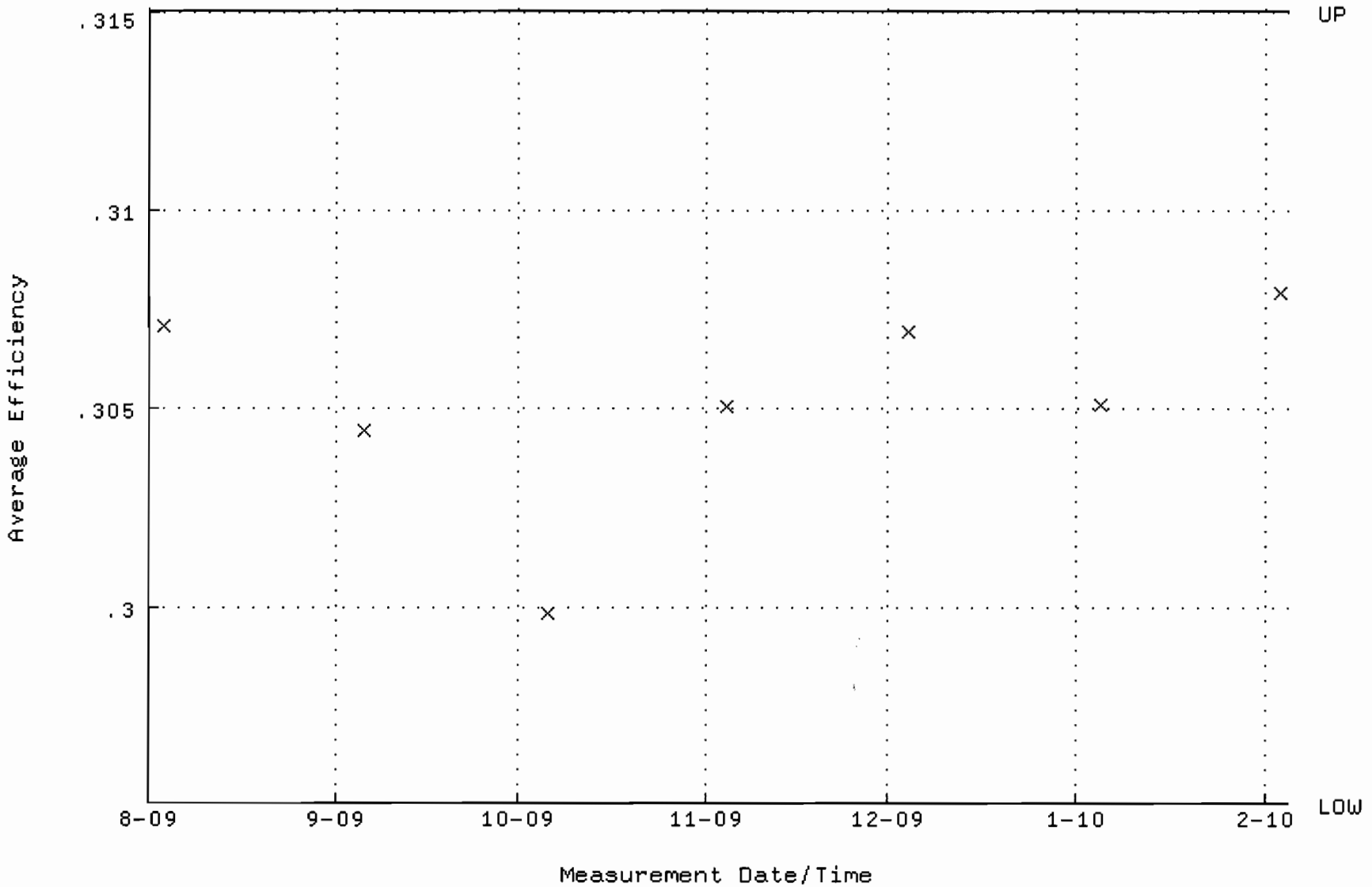
QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 81.2030 through 89.7506



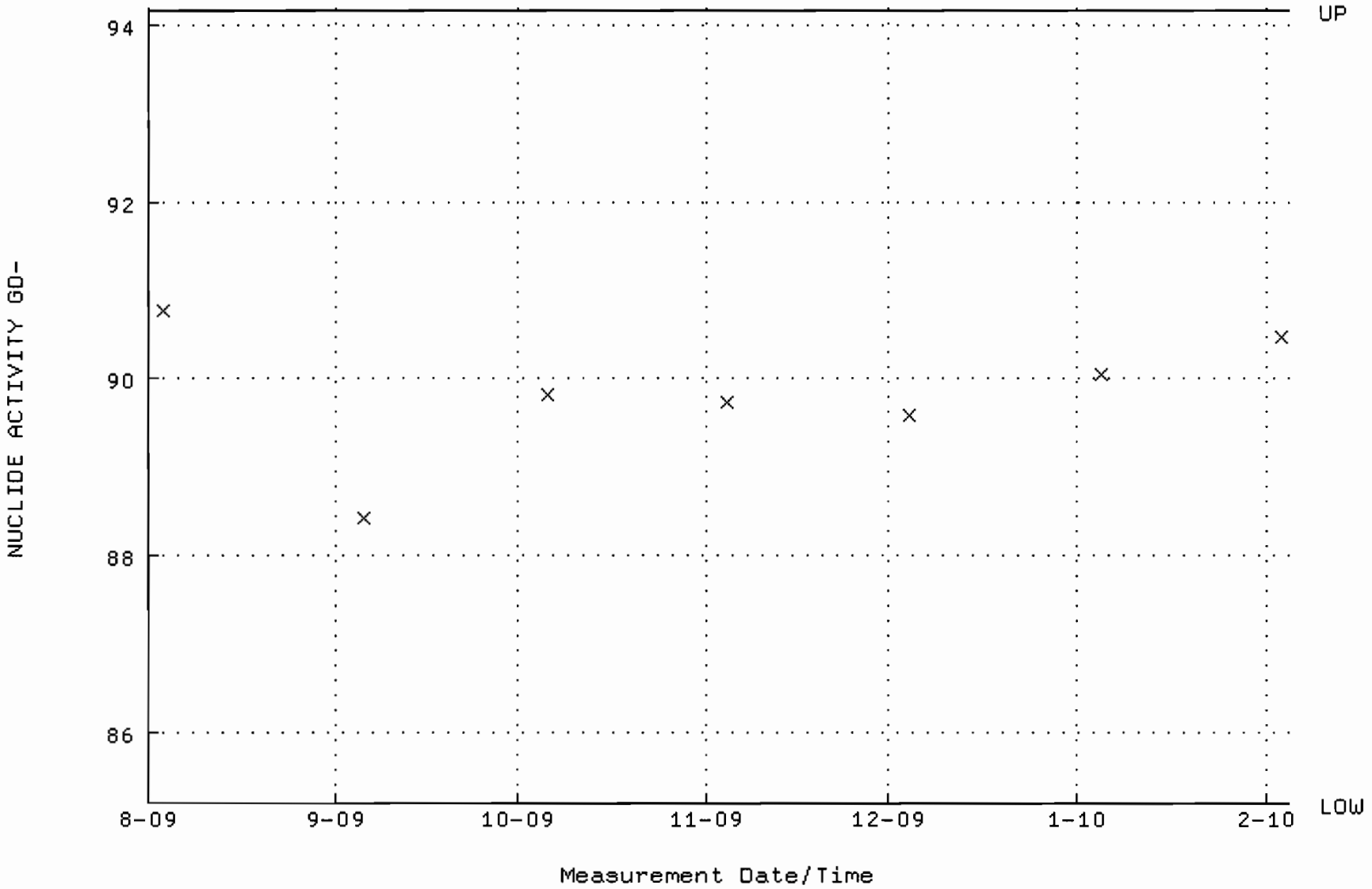
QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



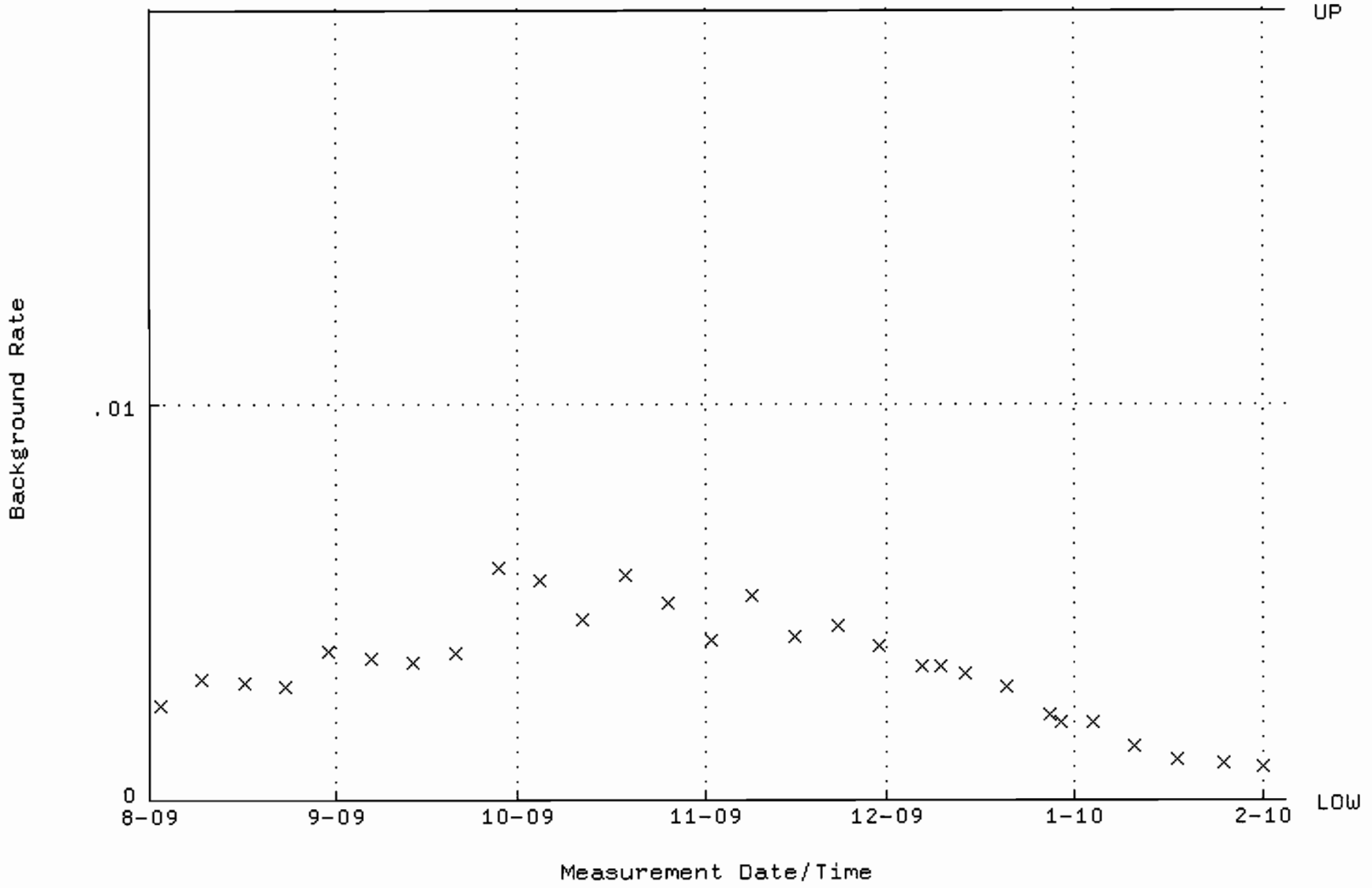
QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295040 through 0.315040



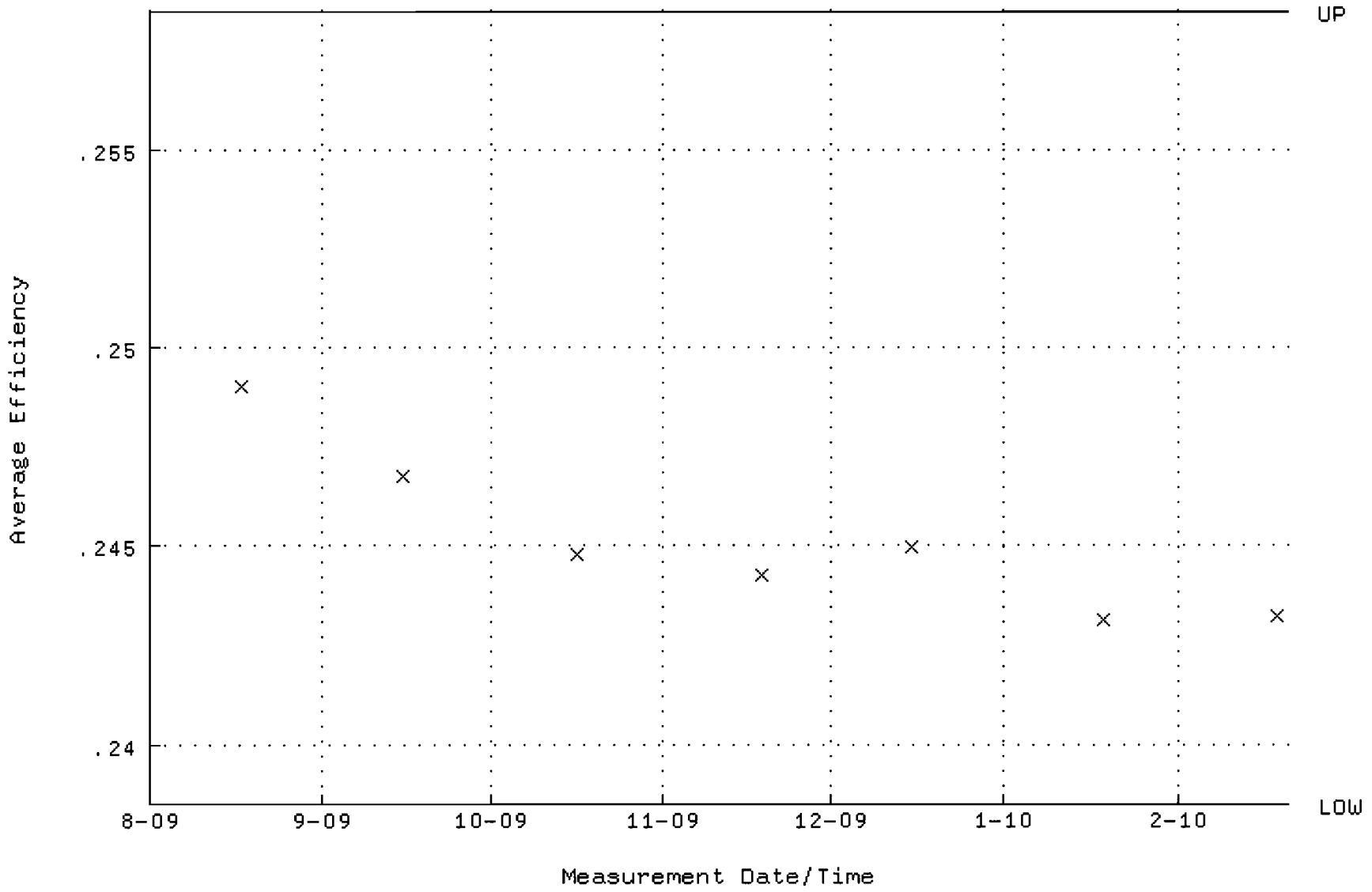
QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.1965 through 94.1645



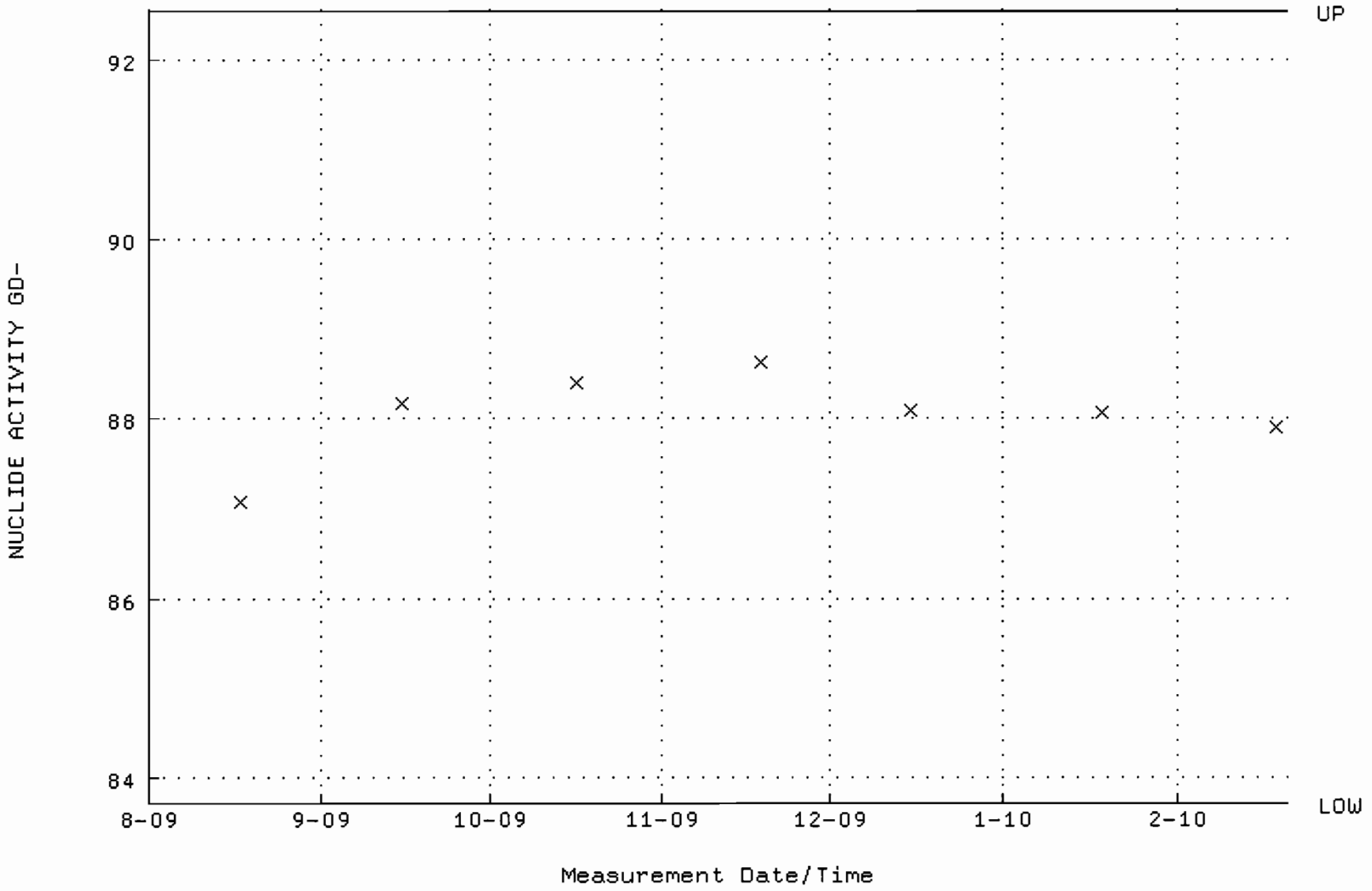
QA filename : DKA100:[ENV_ALPHA.QA.B]B028.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



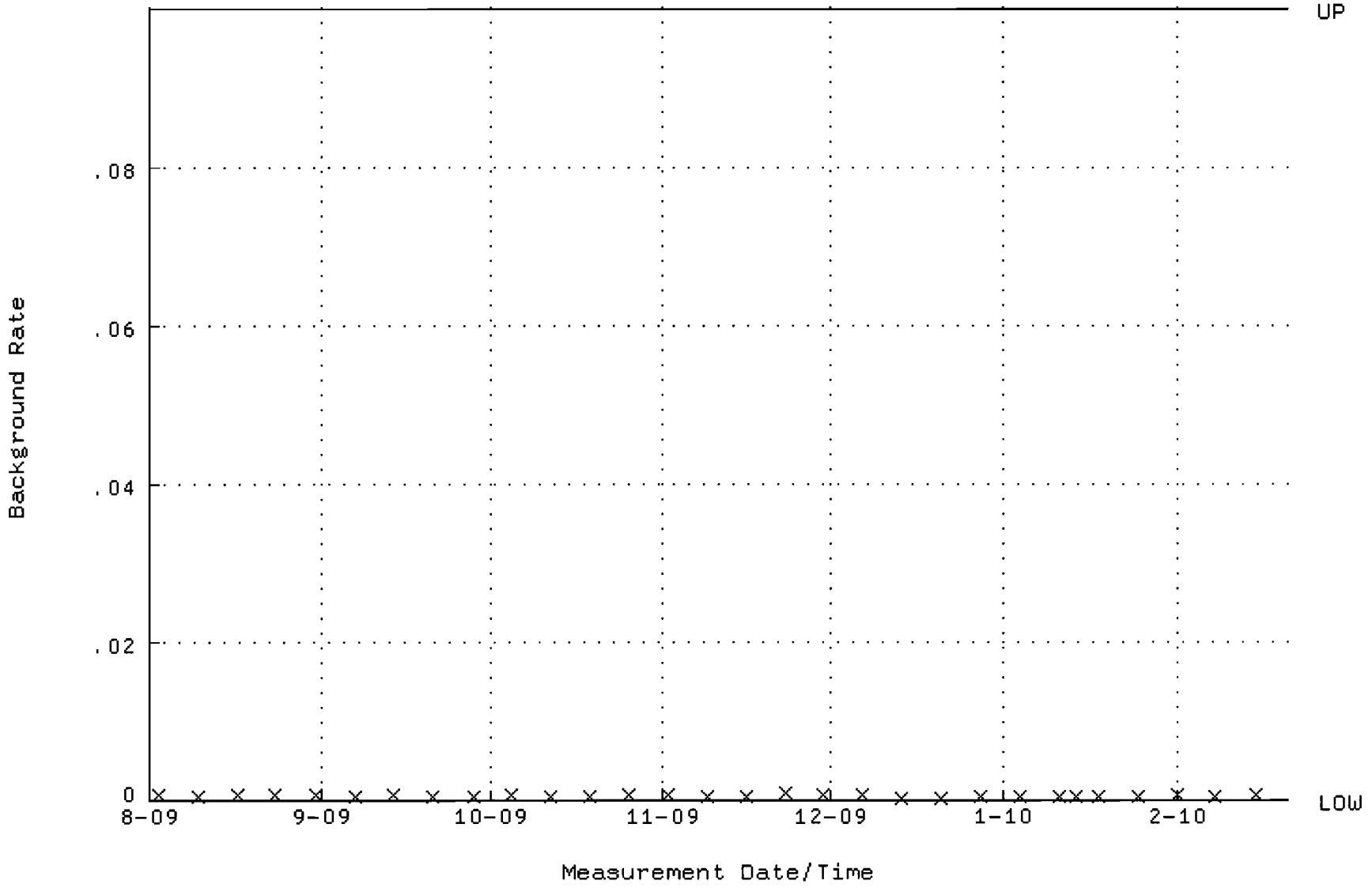
QA filename : DKA100:[ENV_ALPHA.QA.W]W152.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:27 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.238479 through 0.258479



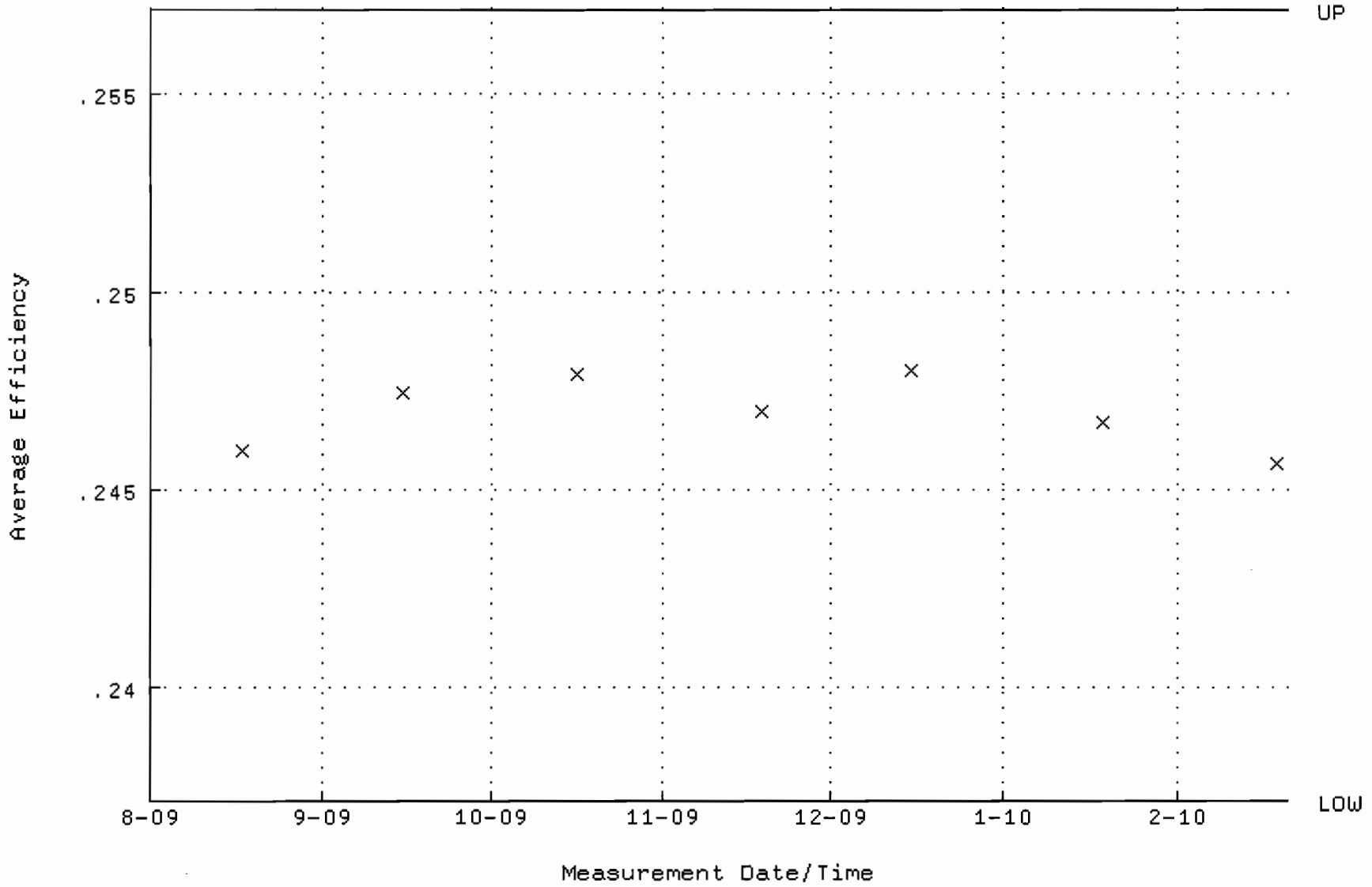
QA filename : DKA100:[ENV_ALPHA.QA.W]W152.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:27 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 83.7180 through 92.5304



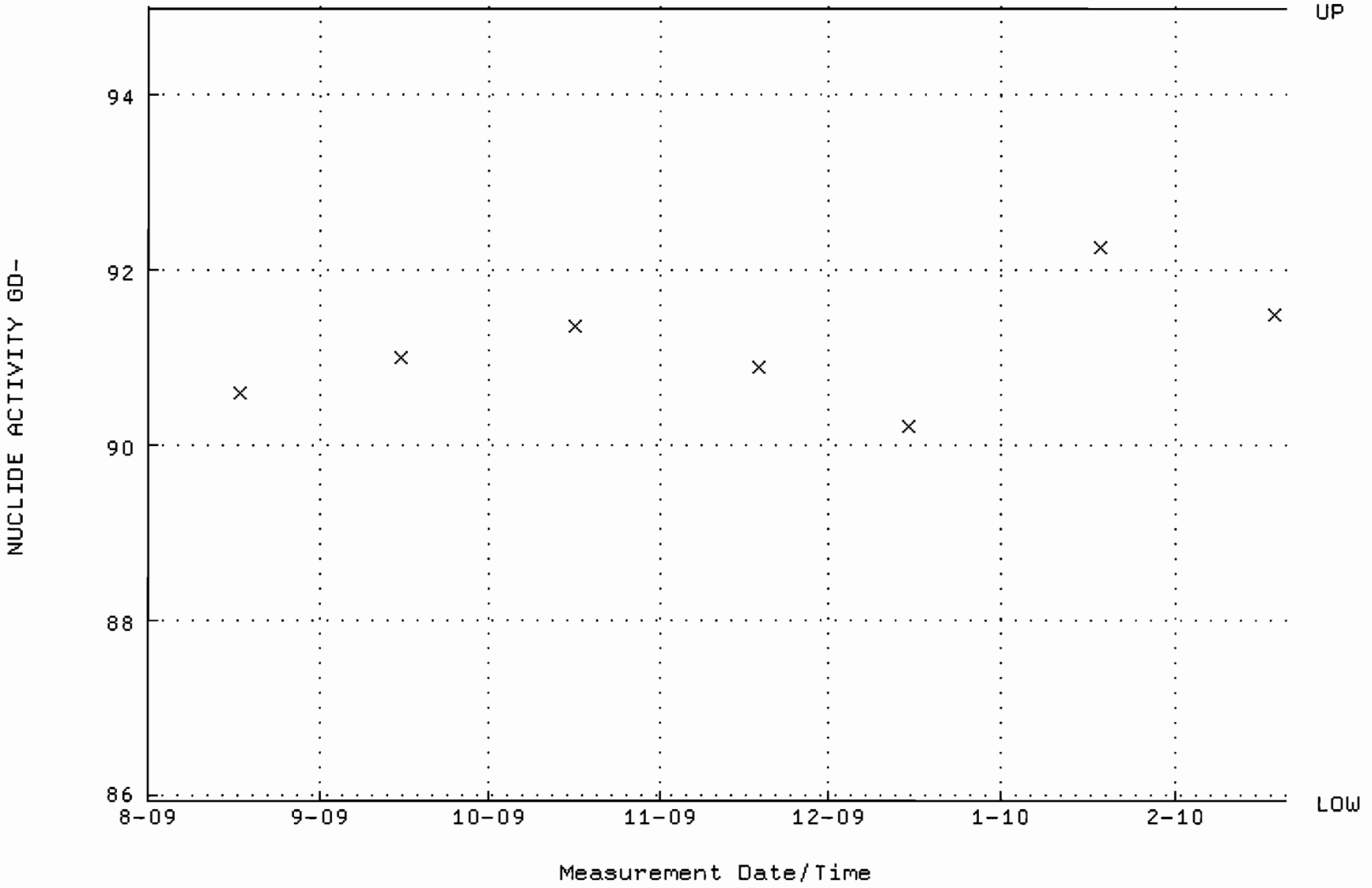
QA filename : DKA100:[ENV_ALPHA.QA.B]B152.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:44 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



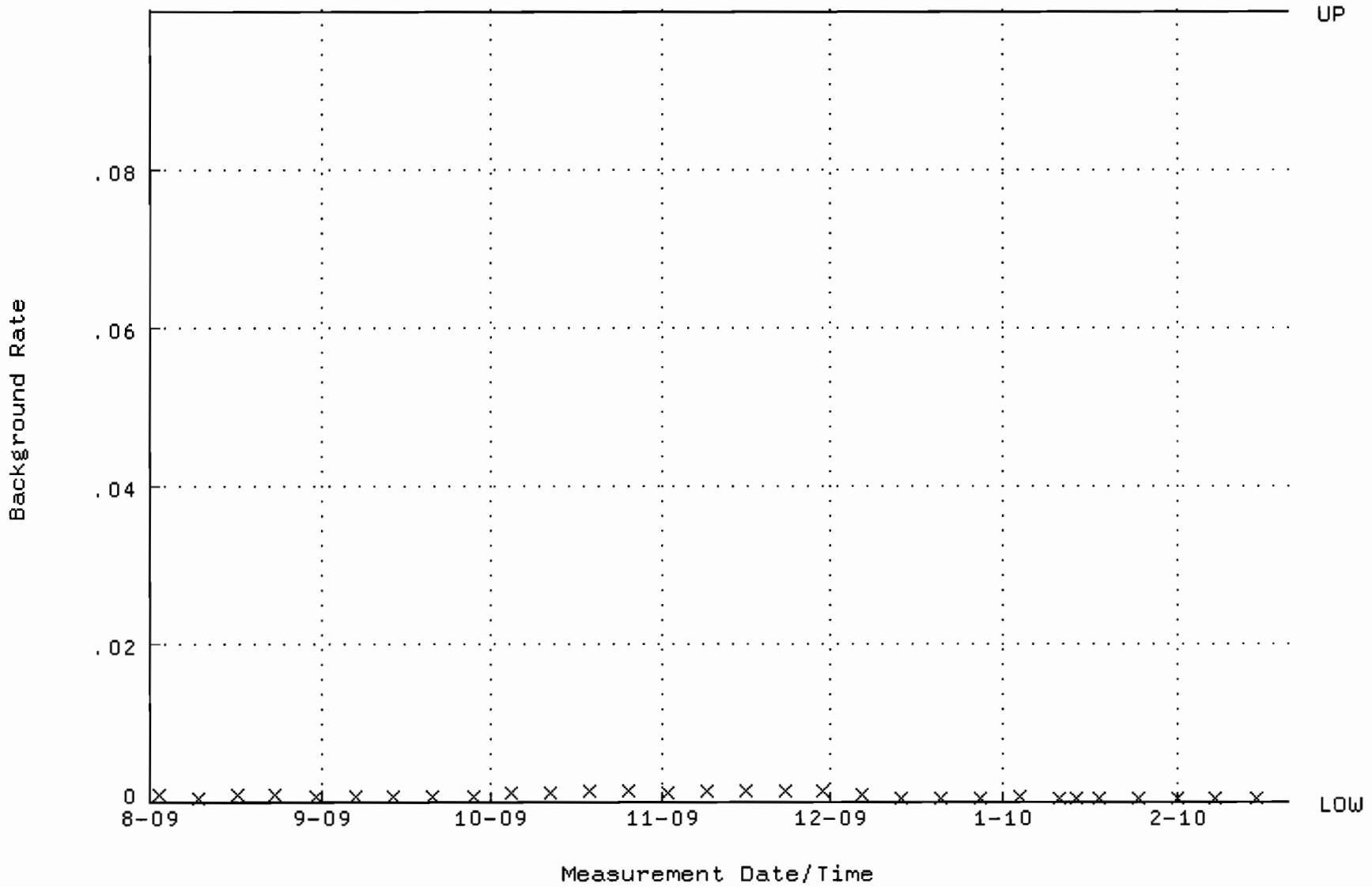
QA filename : DKA100:[ENV_ALPHA.QA.W]W157.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:53 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237137 through 0.257137



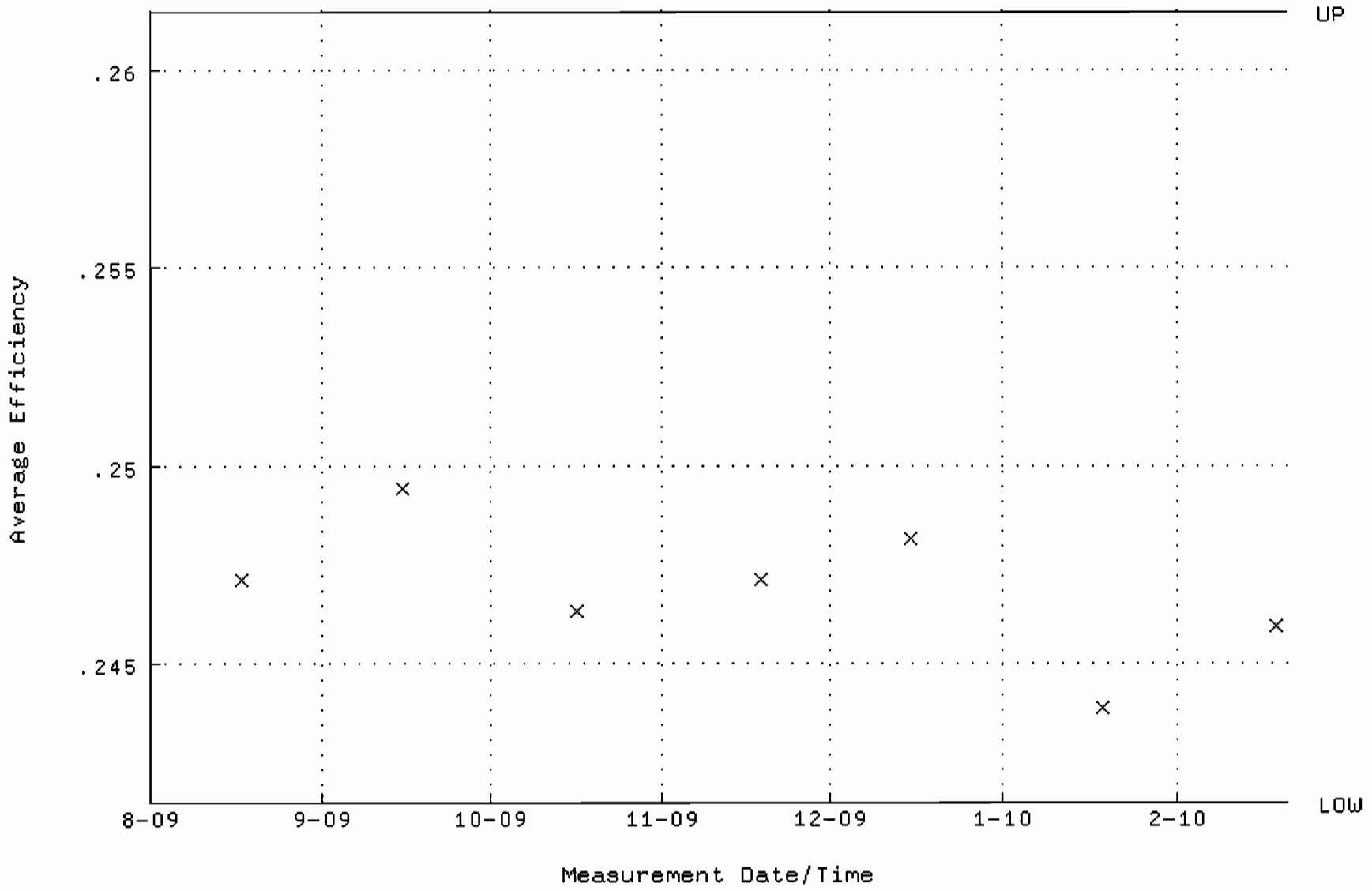
QA filename : DKA100:[ENV_ALPHA.QA.W]W157.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:53 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 85.9292 through 94.9744



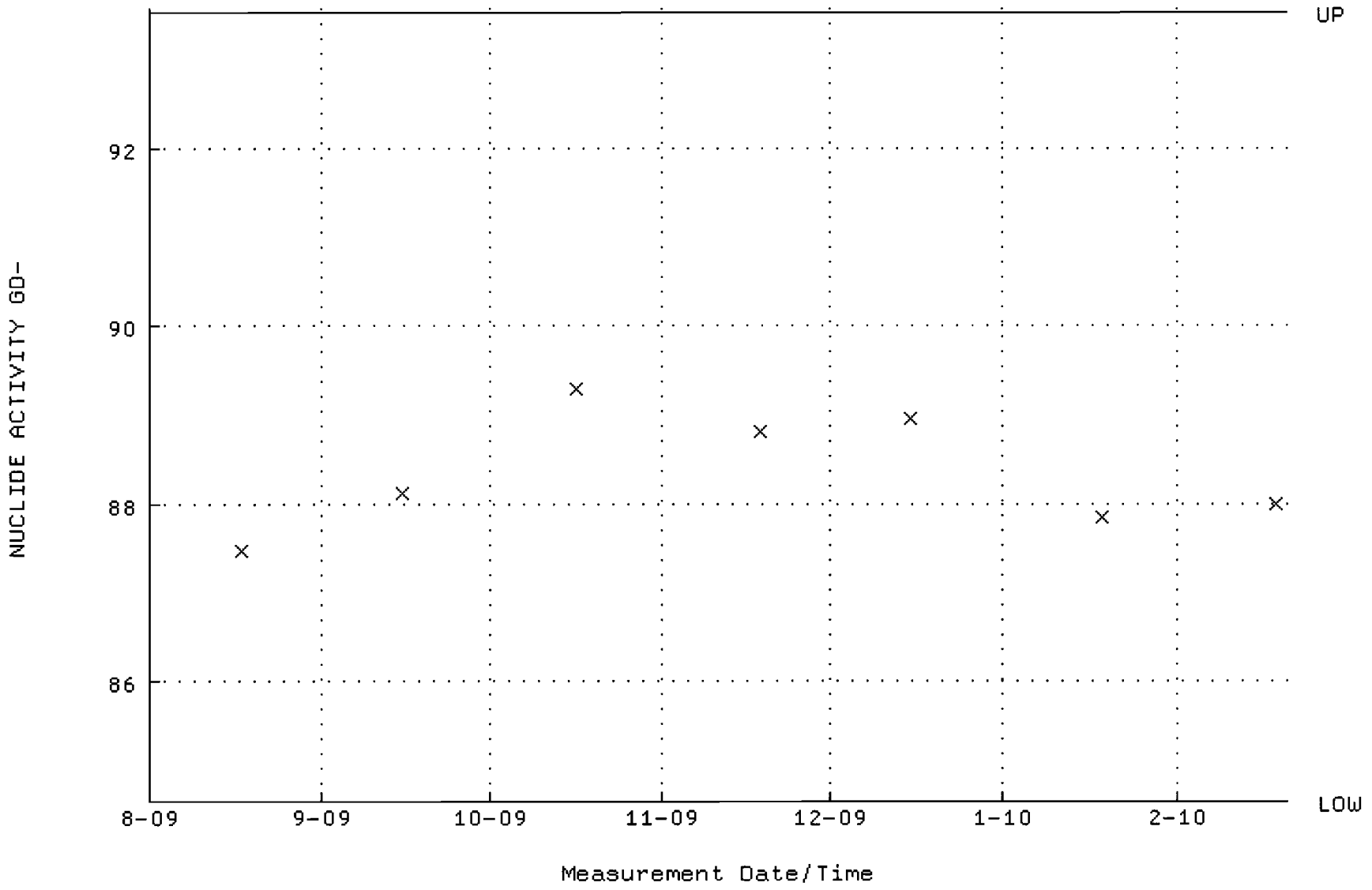
QA filename : DKA100:[ENV_ALPHA.QA.B]B157.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:15:04 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



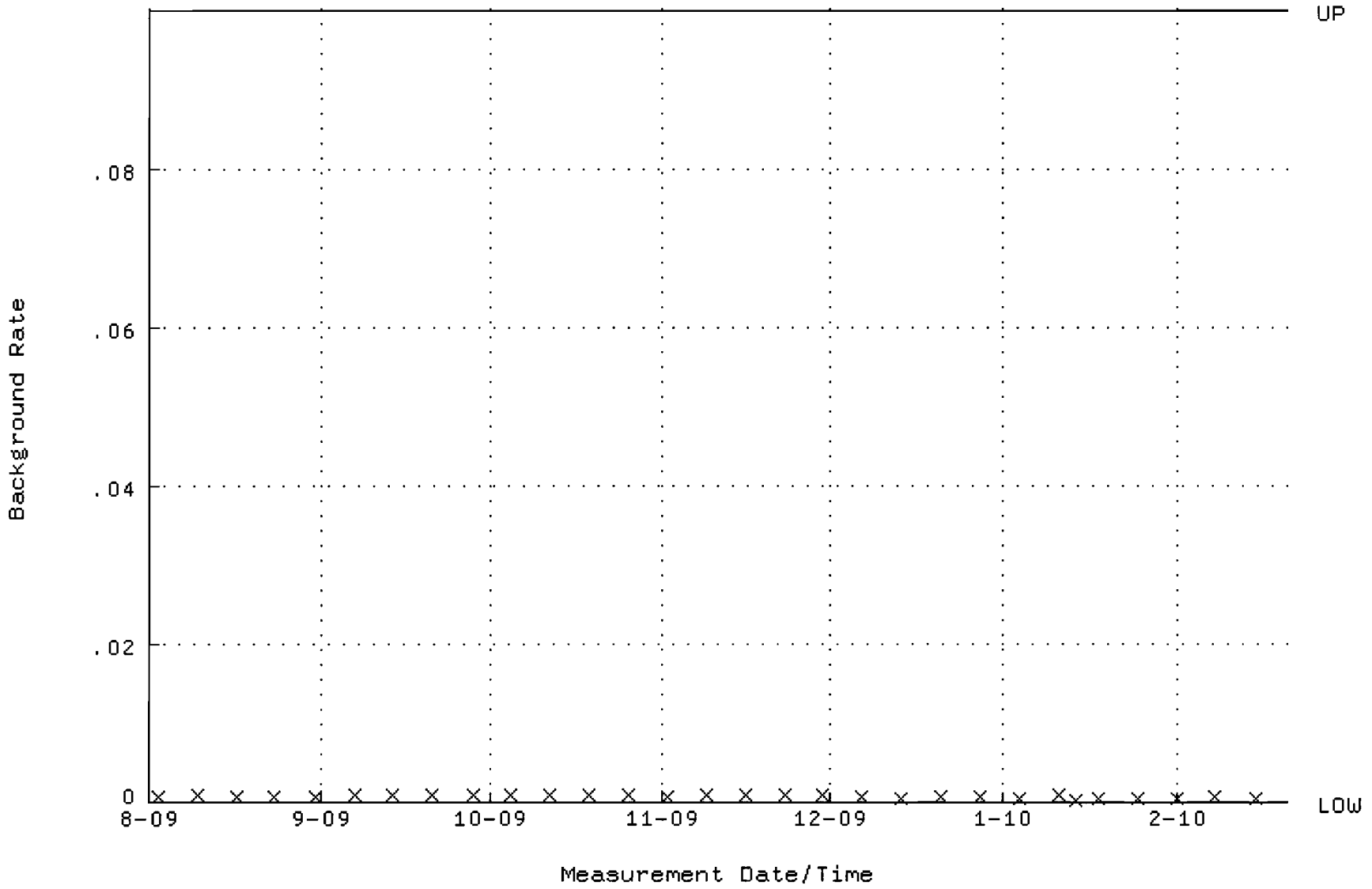
QA filename : DKA100:[ENV_ALPHA.QA.W]W158.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:59 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.241466 through 0.261466



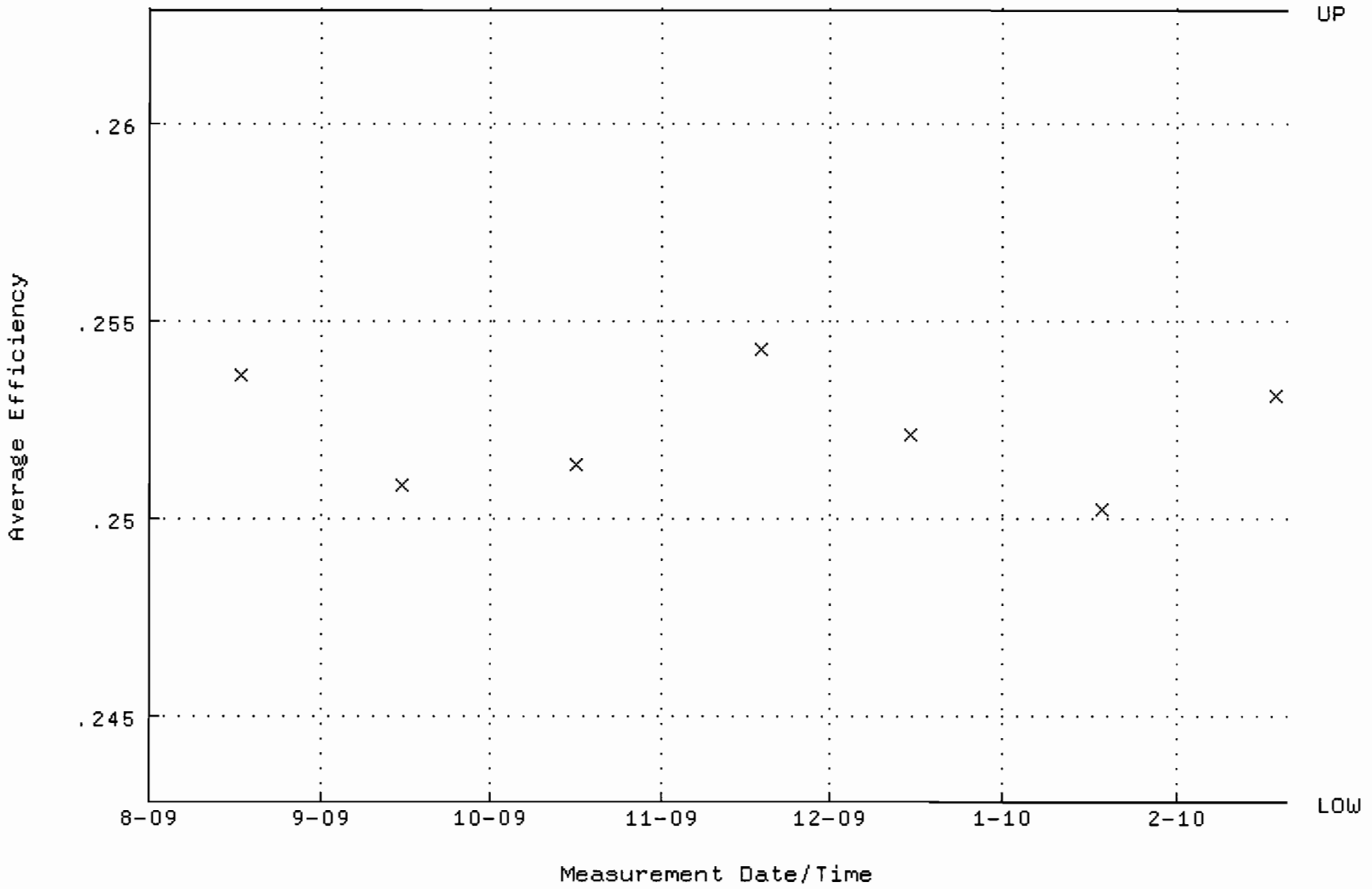
QA filename : DKA100:[ENV_ALPHA.QA.W]W158.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:59 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.6414 through 93.5510



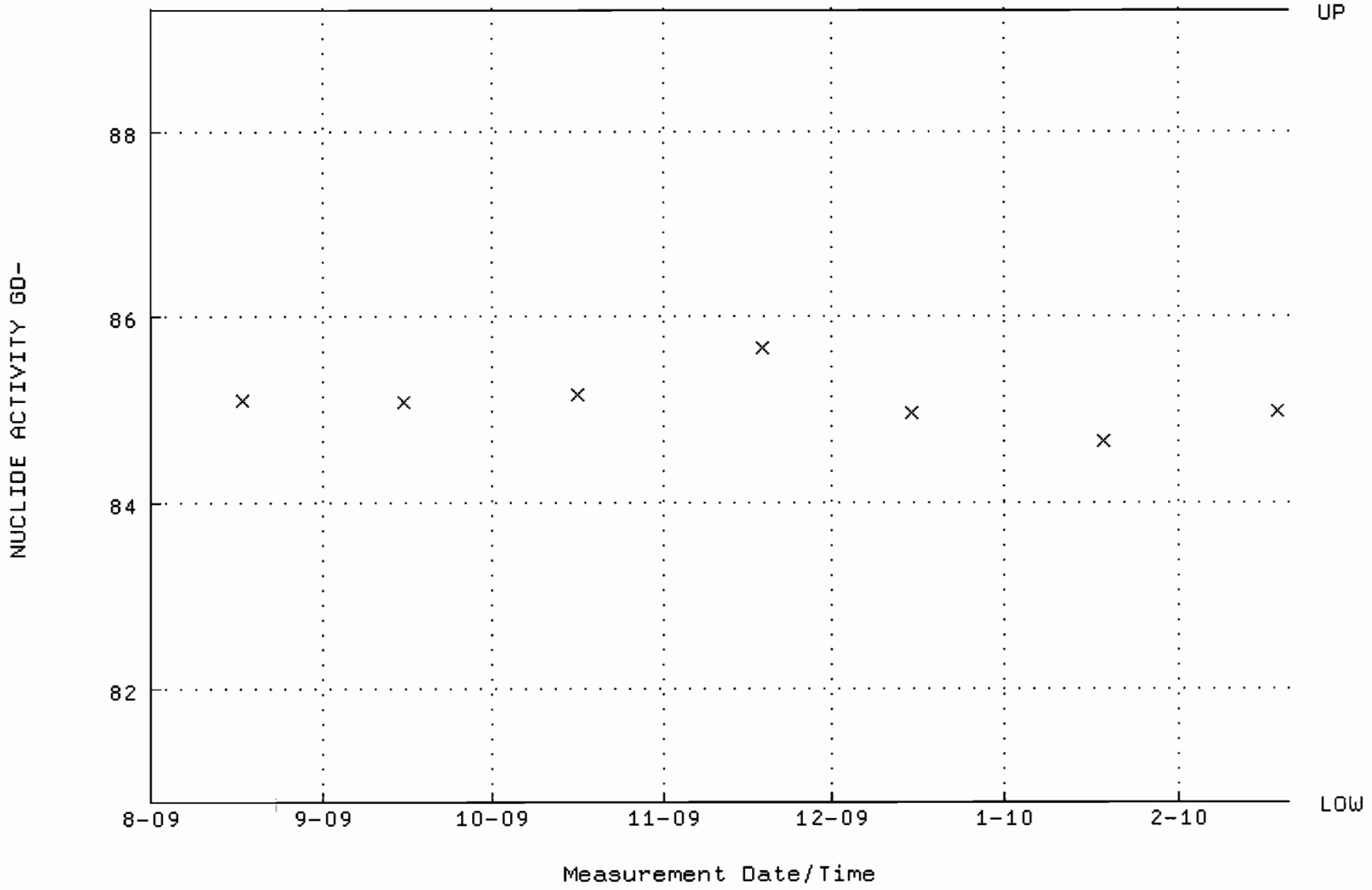
QA filename : DKA100:[ENV_ALPHA.QA.B]B158.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:15:08 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



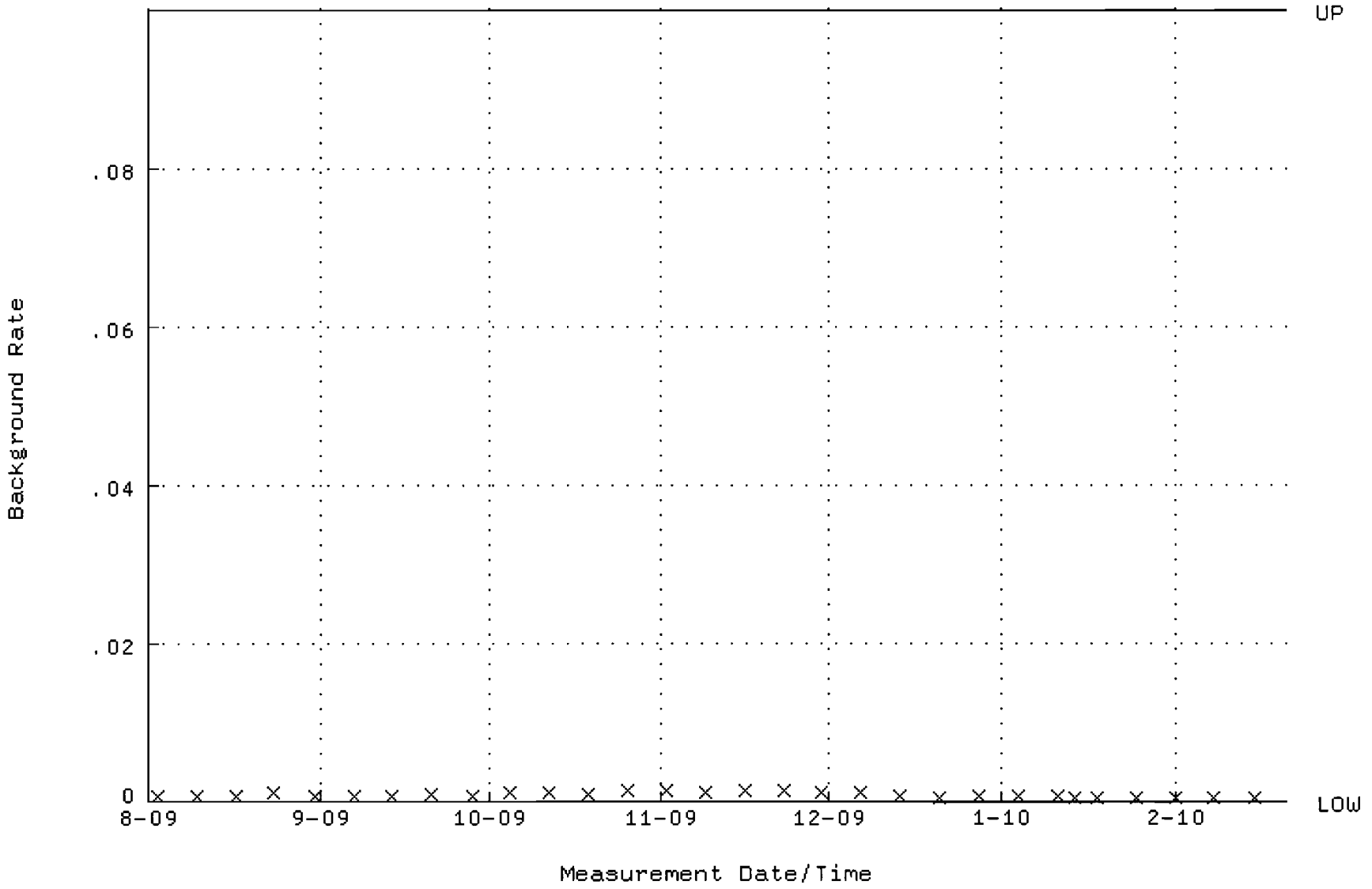
QA filename : DKA100:[ENV_ALPHA.QA.W]W159.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:48:04 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242851 through 0.262851



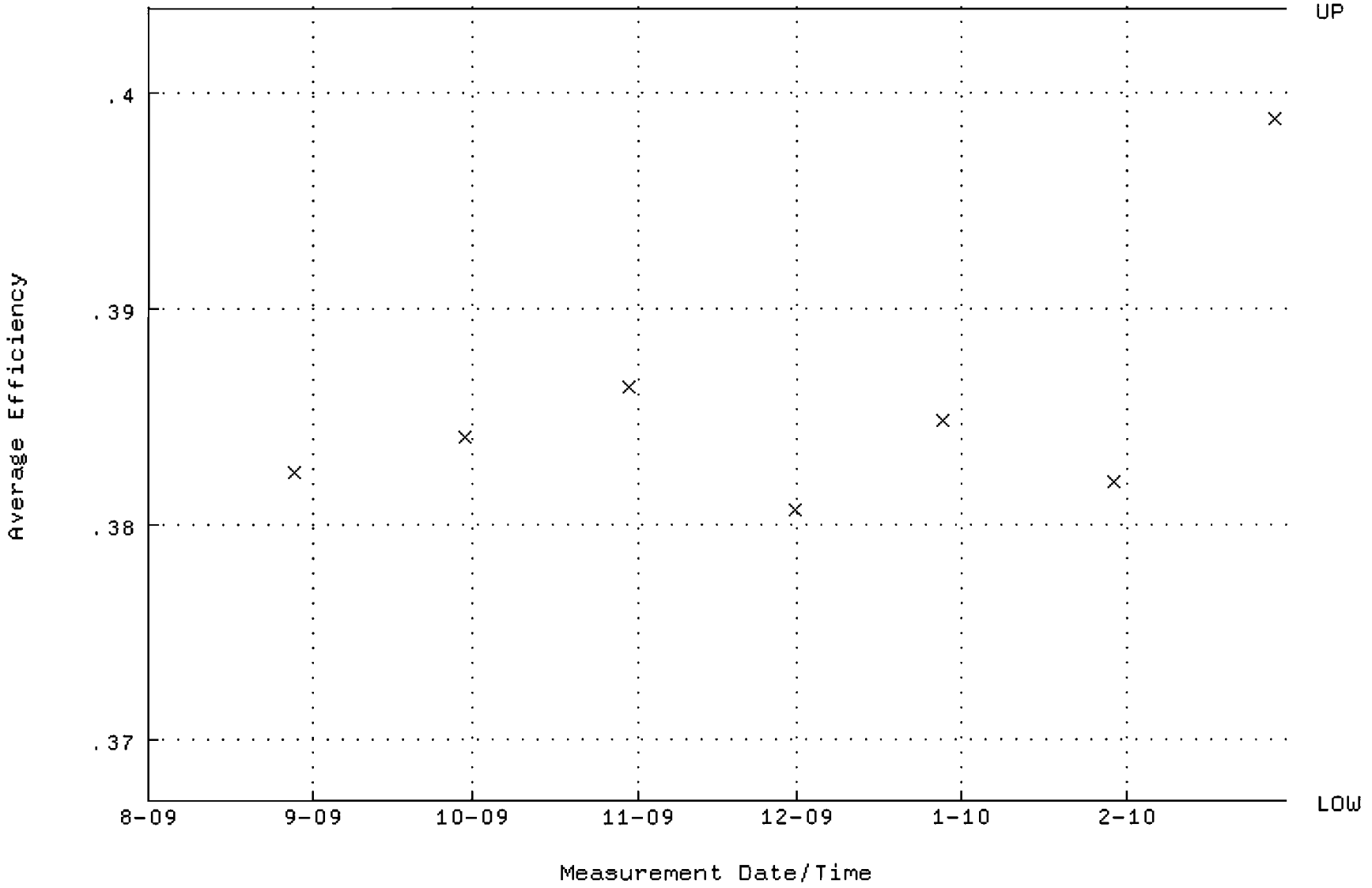
QA filename : DKA100:[ENV_ALPHA.QA.W]W159.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:48:04 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 80.7870 through 89.2909



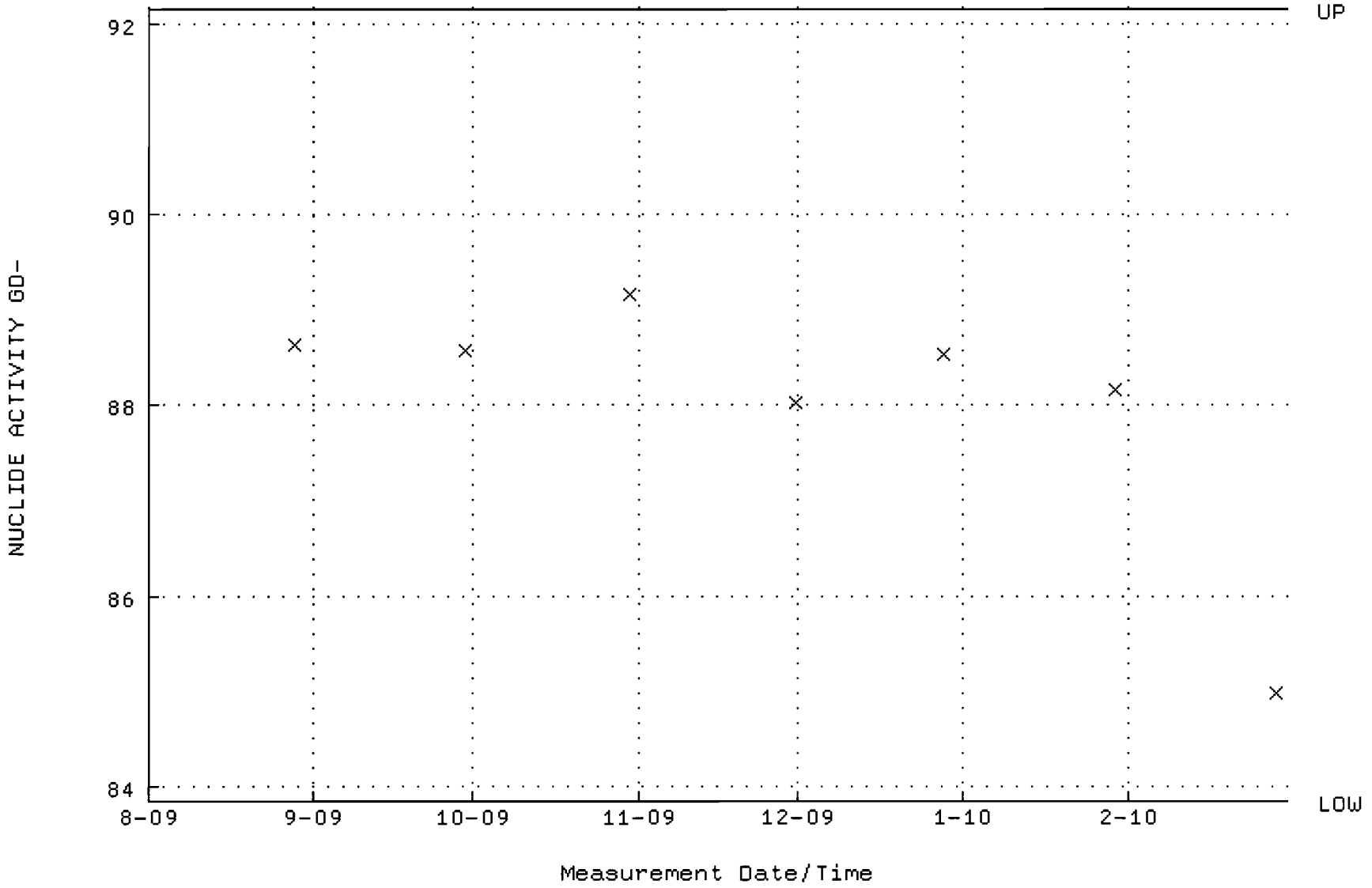
QA filename : DKA100:[ENV_ALPHA.QA.B]B159.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:15:12 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



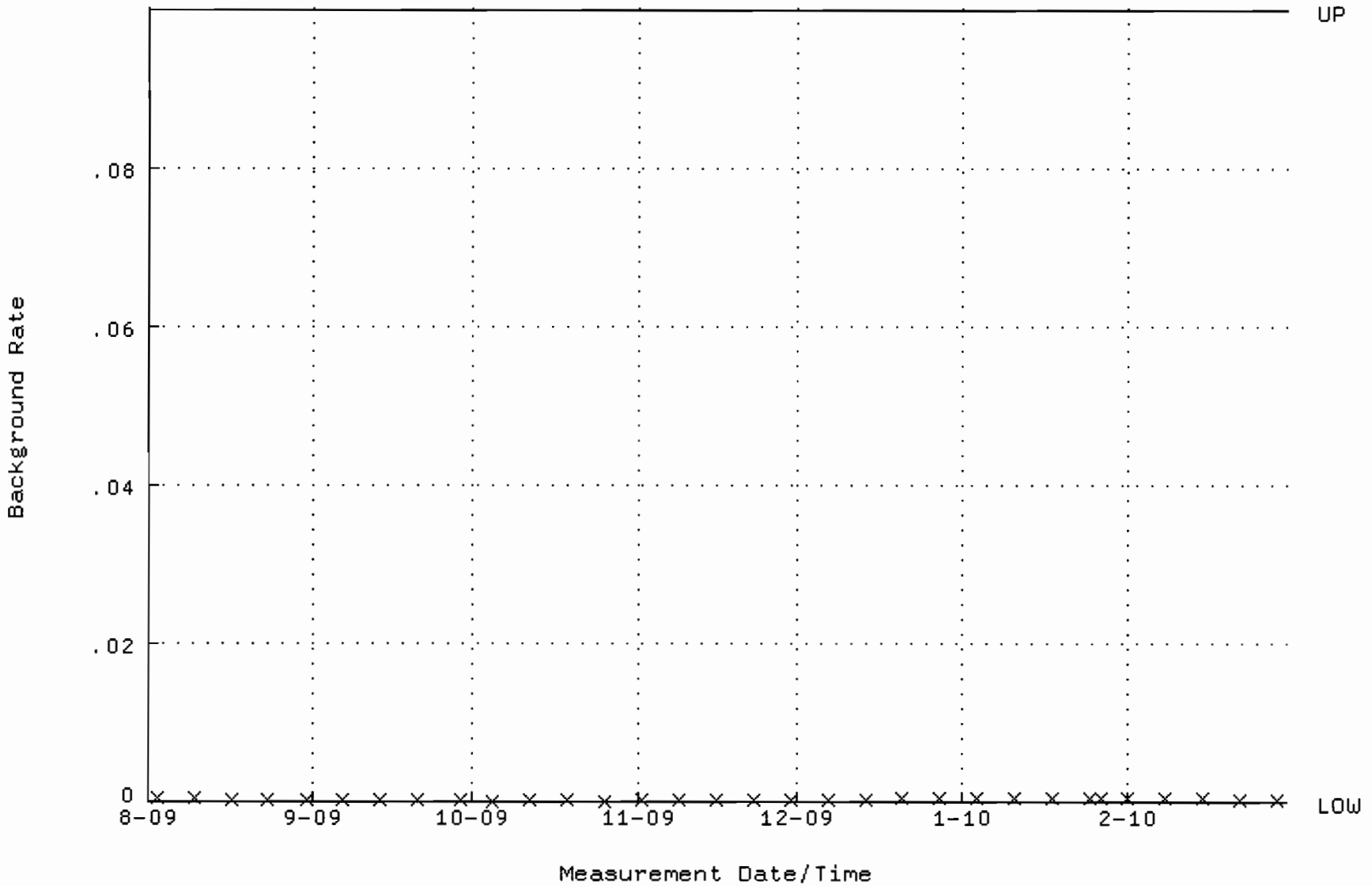
QA filename : DKA100:[ENV_ALPHA.QA.W]W211.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:06:39 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.367181 through 0.403915



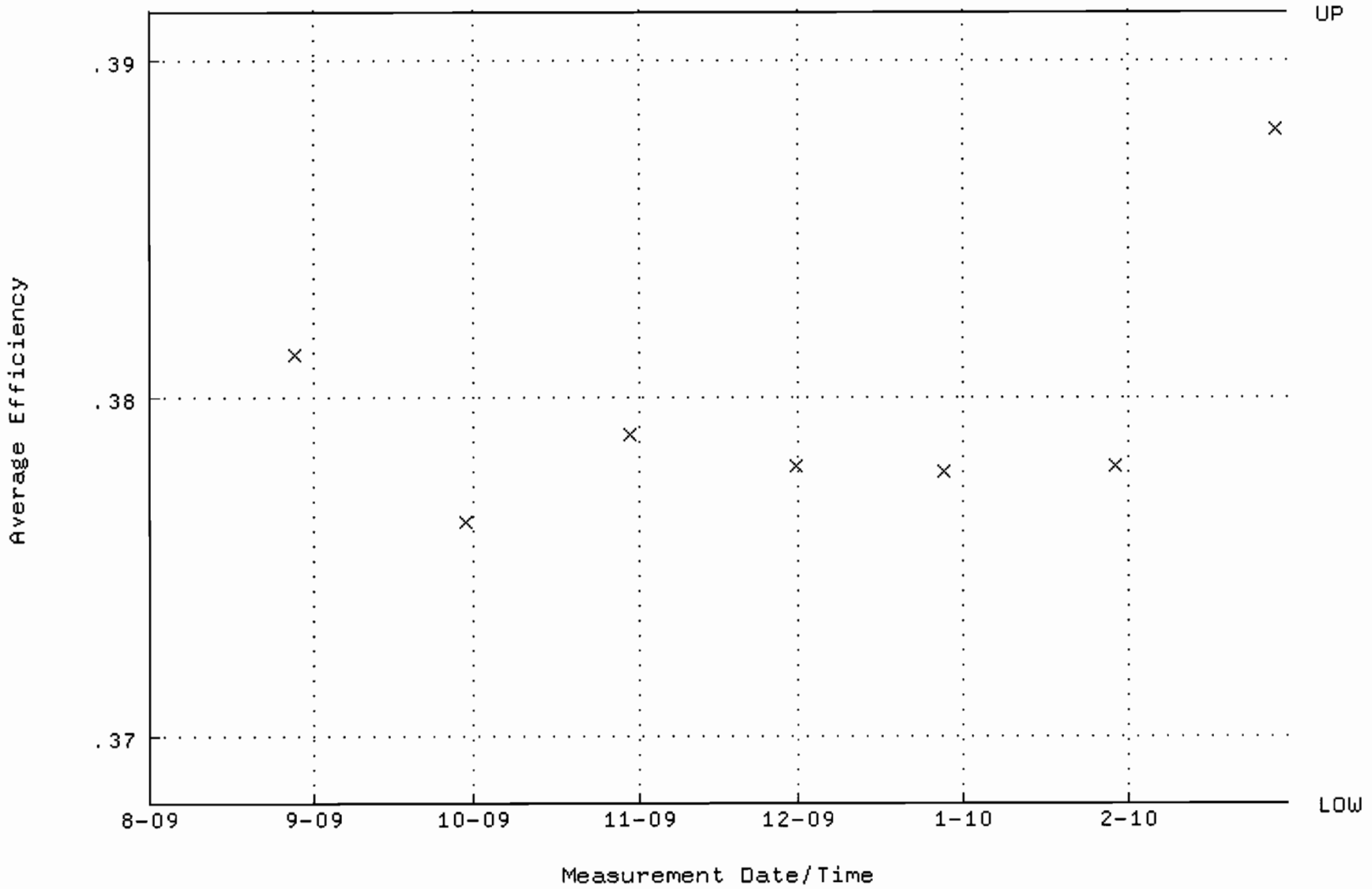
QA filename : DKA100:[ENV_ALPHA.QA.W]W211.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:06:39 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 83.8443 through 92.1557



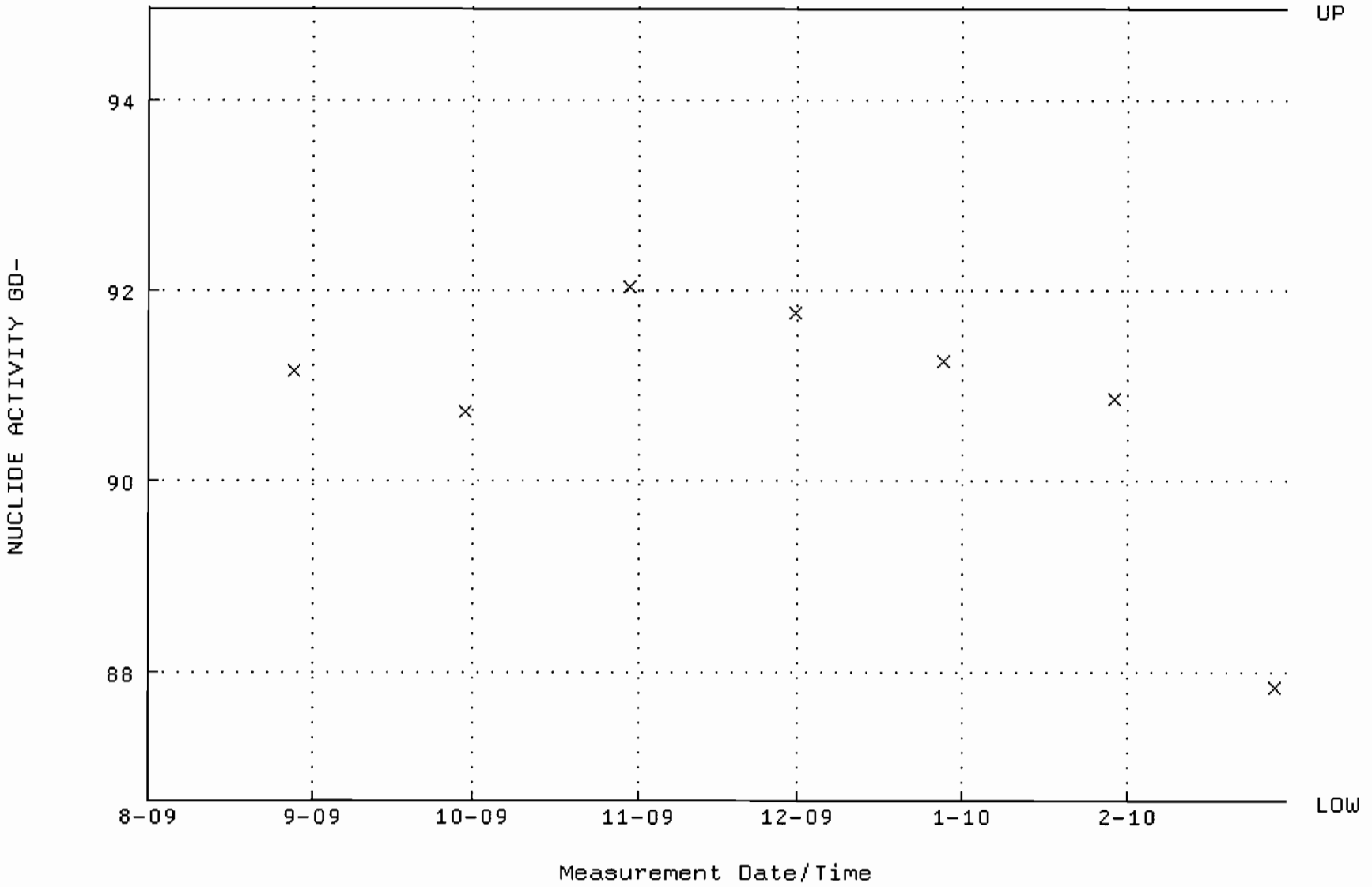
QA filename : DKA100:[ENV_ALPHA.QA.B]B211.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:19 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



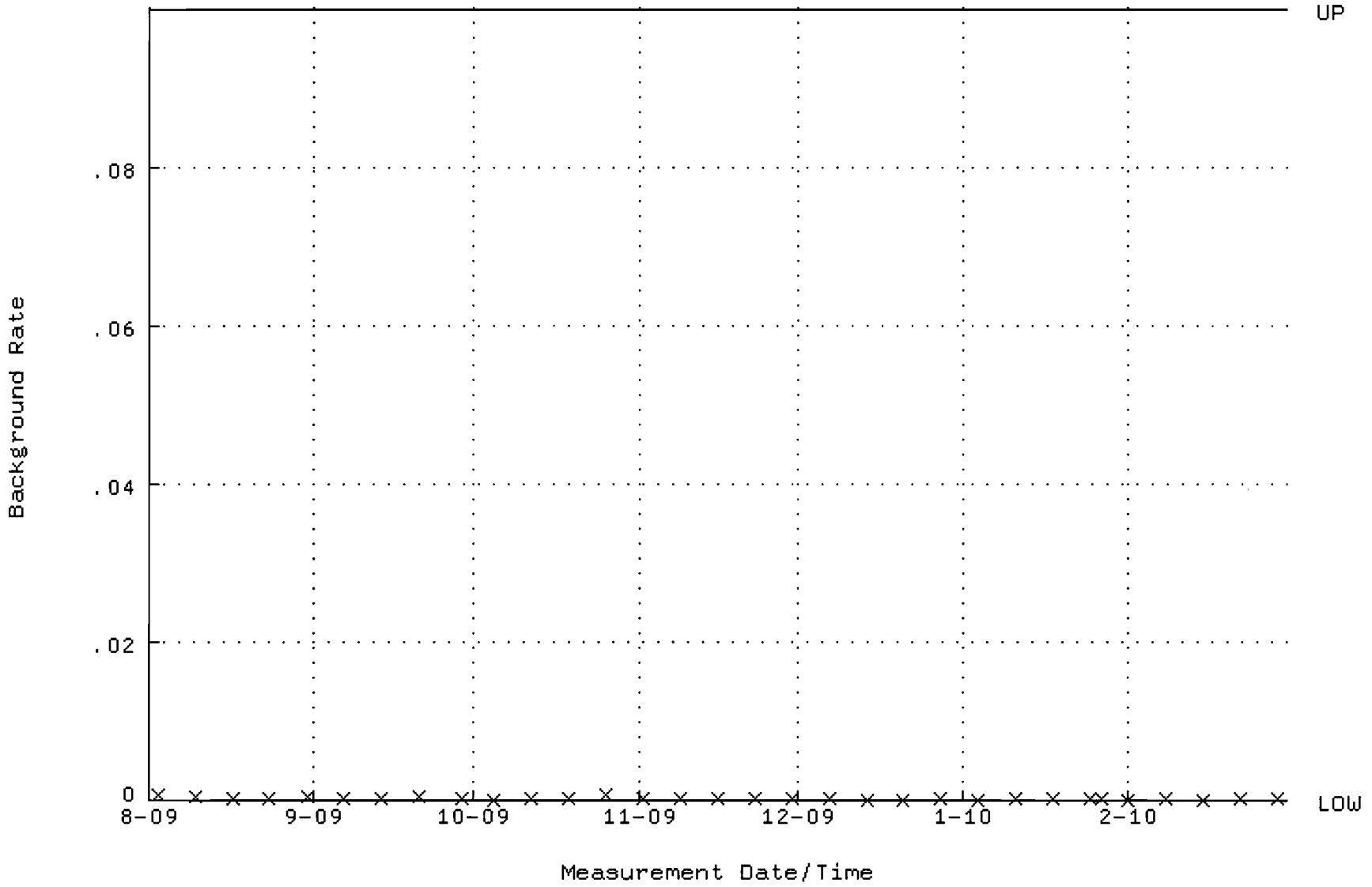
QA filename : DKA100:[ENV_ALPHA.QA.W]W212.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:06:45 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.367986 through 0.391444



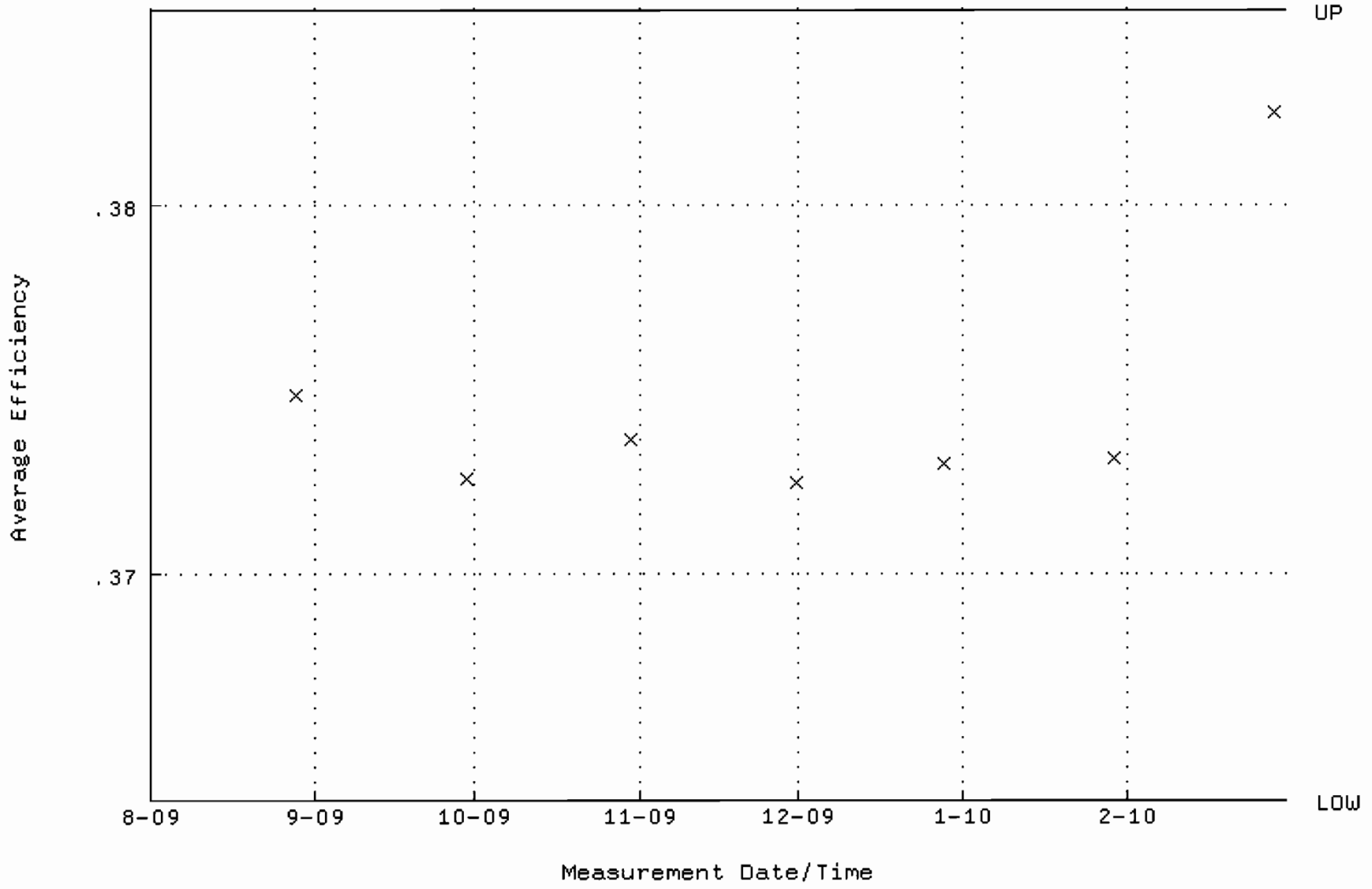
QA filename : DKA100:[ENV_ALPHA.QA.W]W212.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:06:45 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 86.6415 through 94.9511



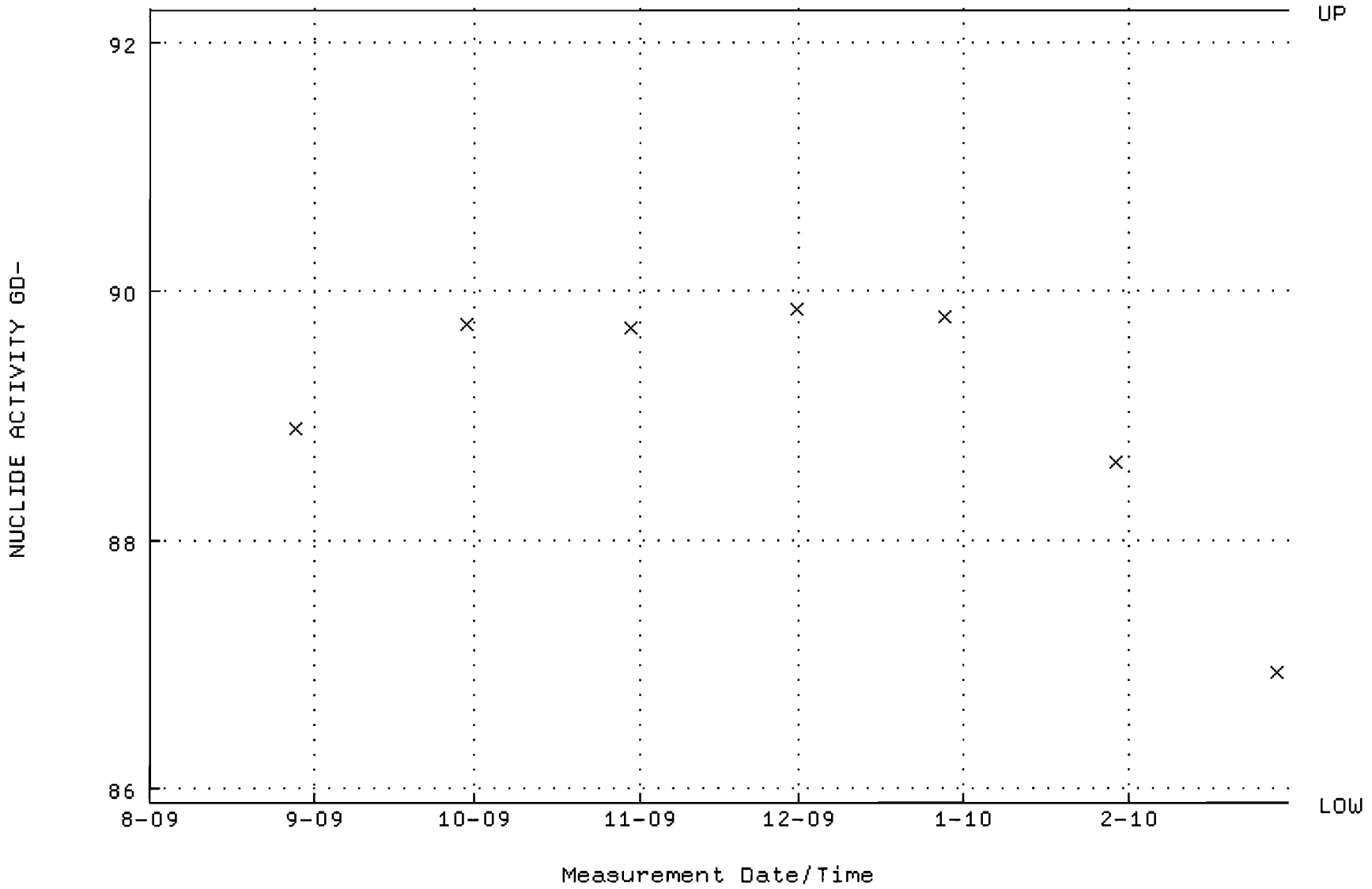
QA filename : DKA100:[ENV_ALPHA.QA.B]B212.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:23 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



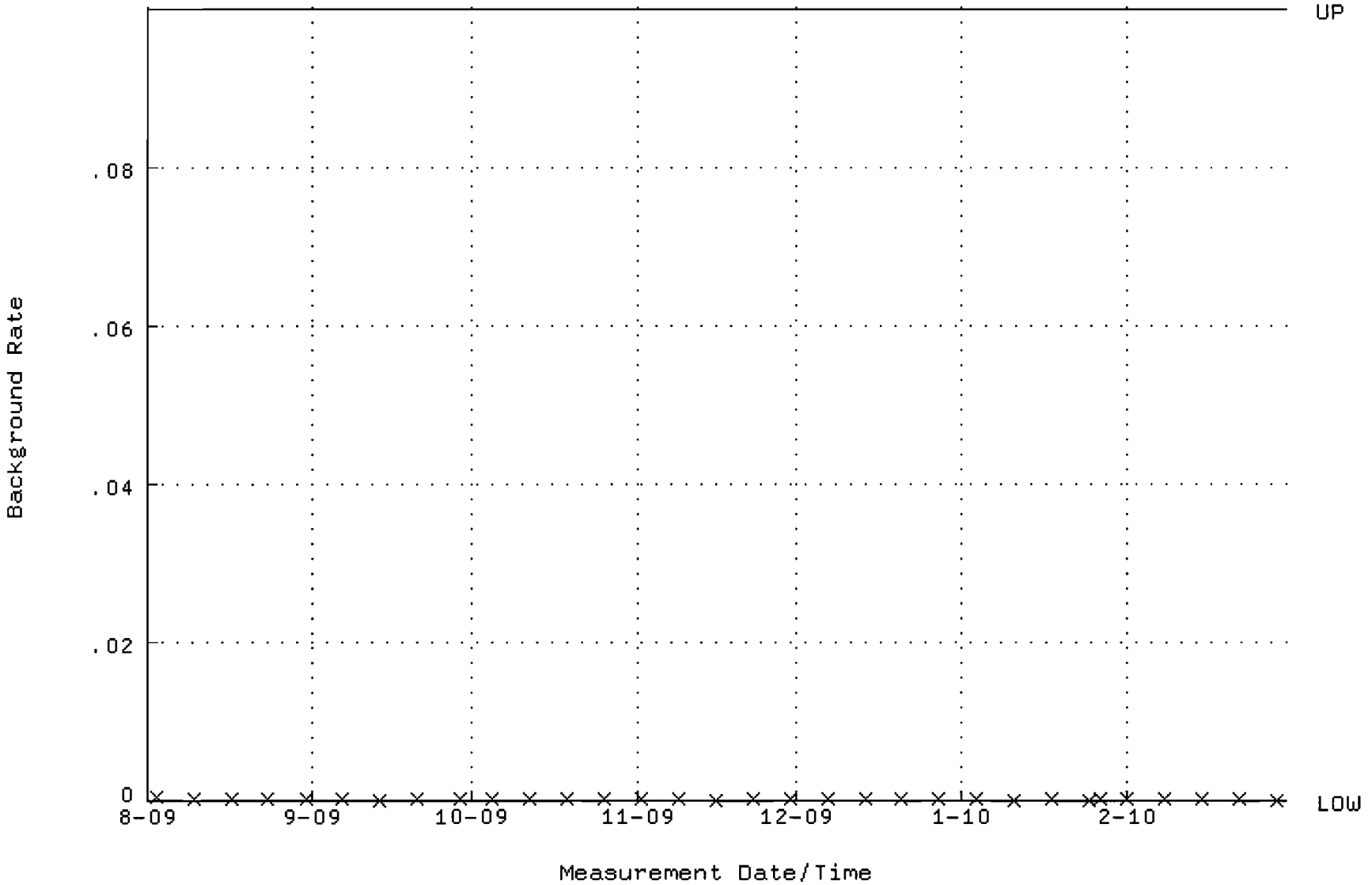
QA filename : DKA100:[ENV_ALPHA.QA.W]W213.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:06:50 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.363867 through 0.385287



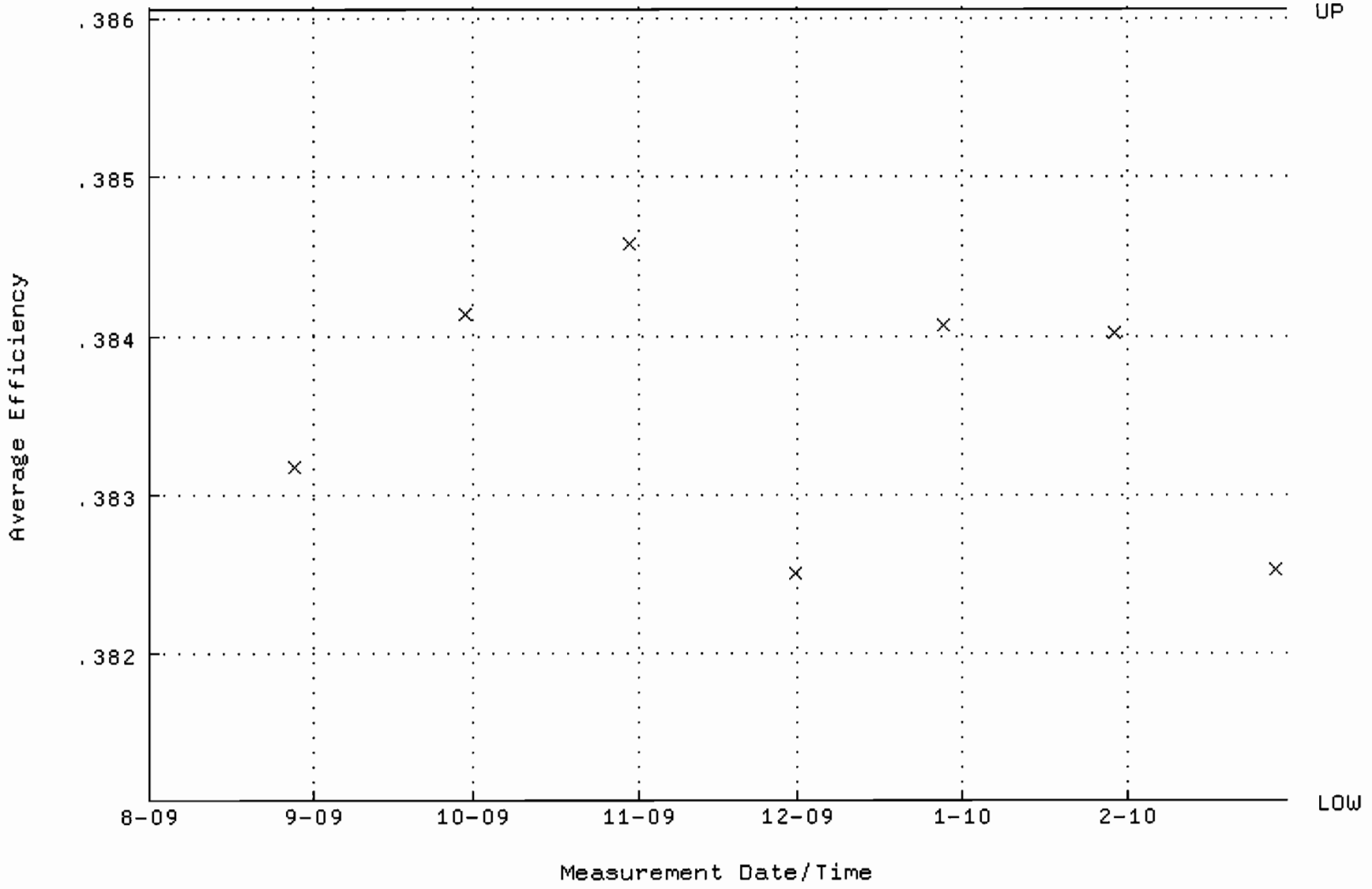
QA filename : DKA100:[ENV_ALPHA.QA.W]W213.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:06:50 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 85.8876 through 92.2476



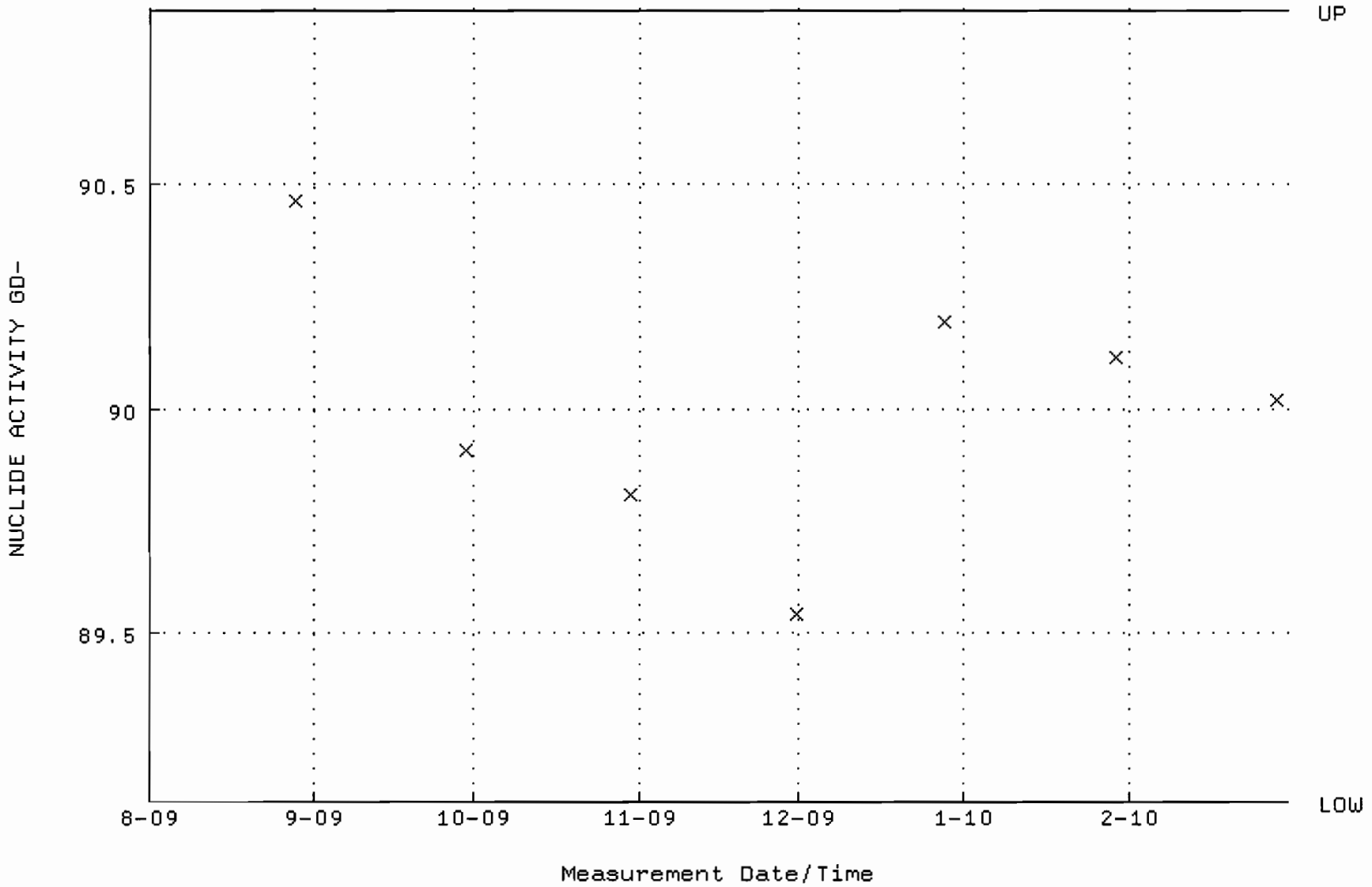
QA filename : DKA100:[ENV_ALPHA.QA.B]B213.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:27 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



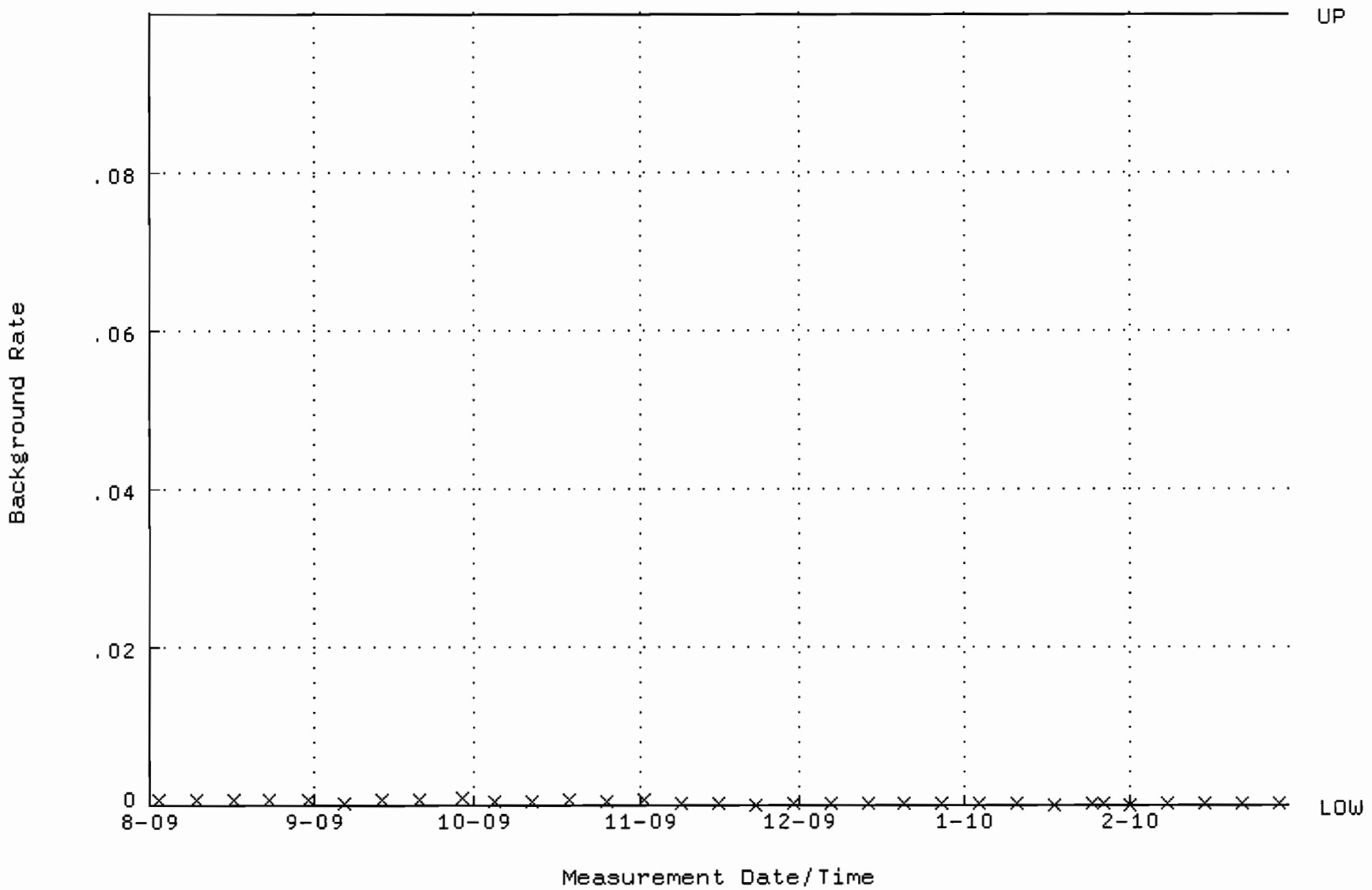
QA filename : DKA100:[ENV_ALPHA.QA.W]W214.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:06:55 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.381077 through 0.386057



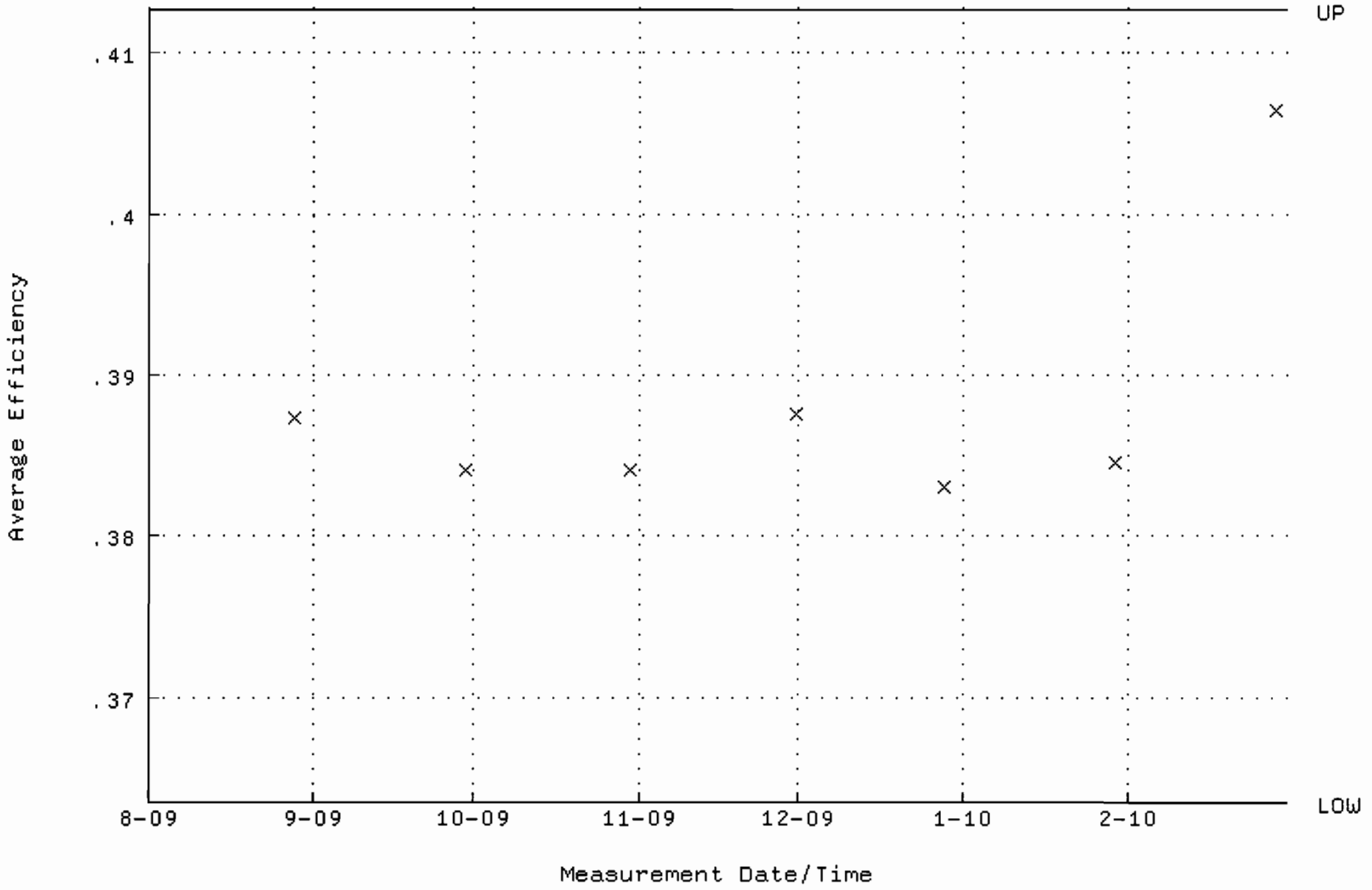
QA filename : DKA100:[ENV_ALPHA.QA.W]W214.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:06:55 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1239 through 90.8865



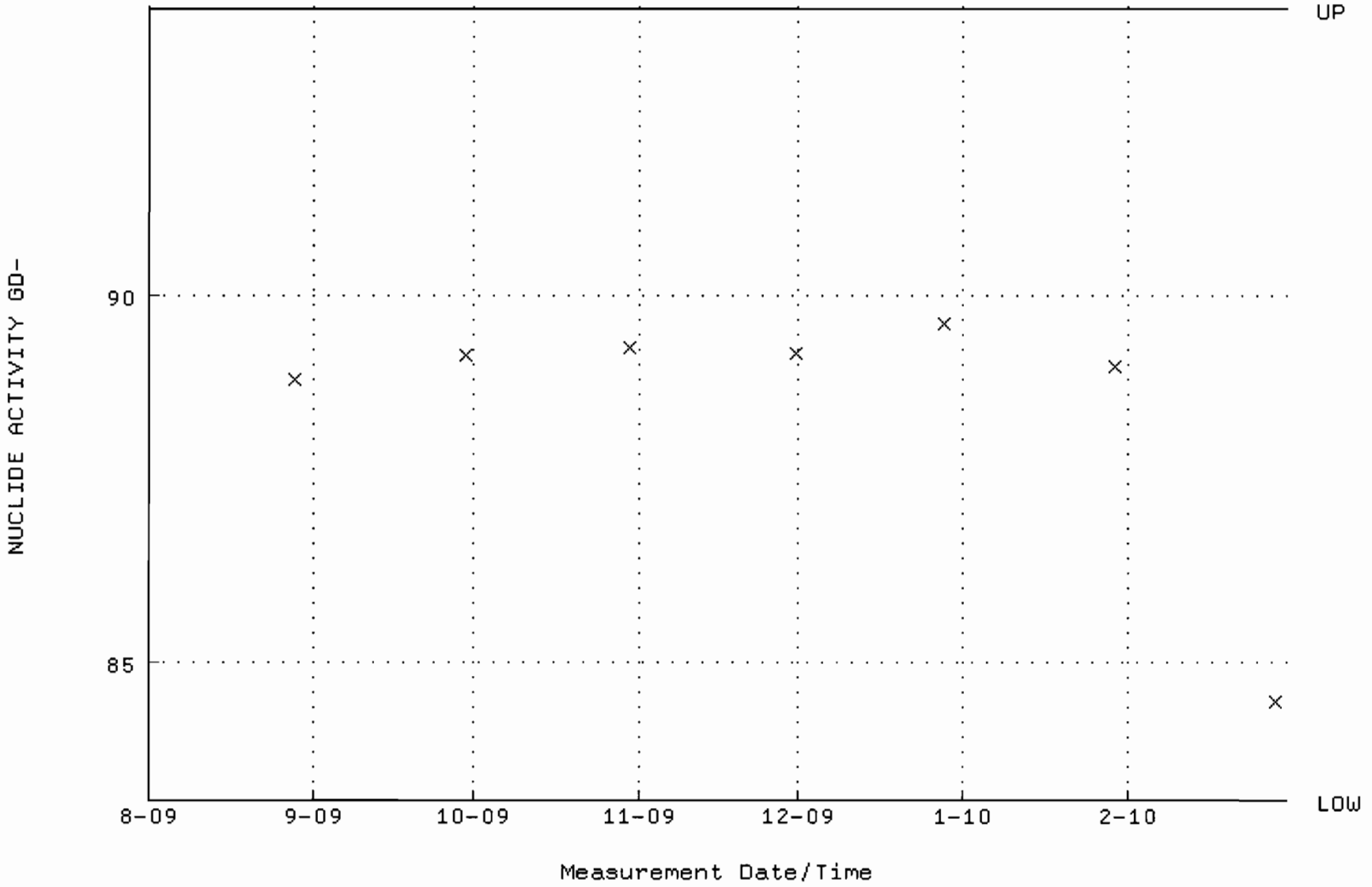
QA filename : DKA100:[ENV_ALPHA.QA.B]B214.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:31 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



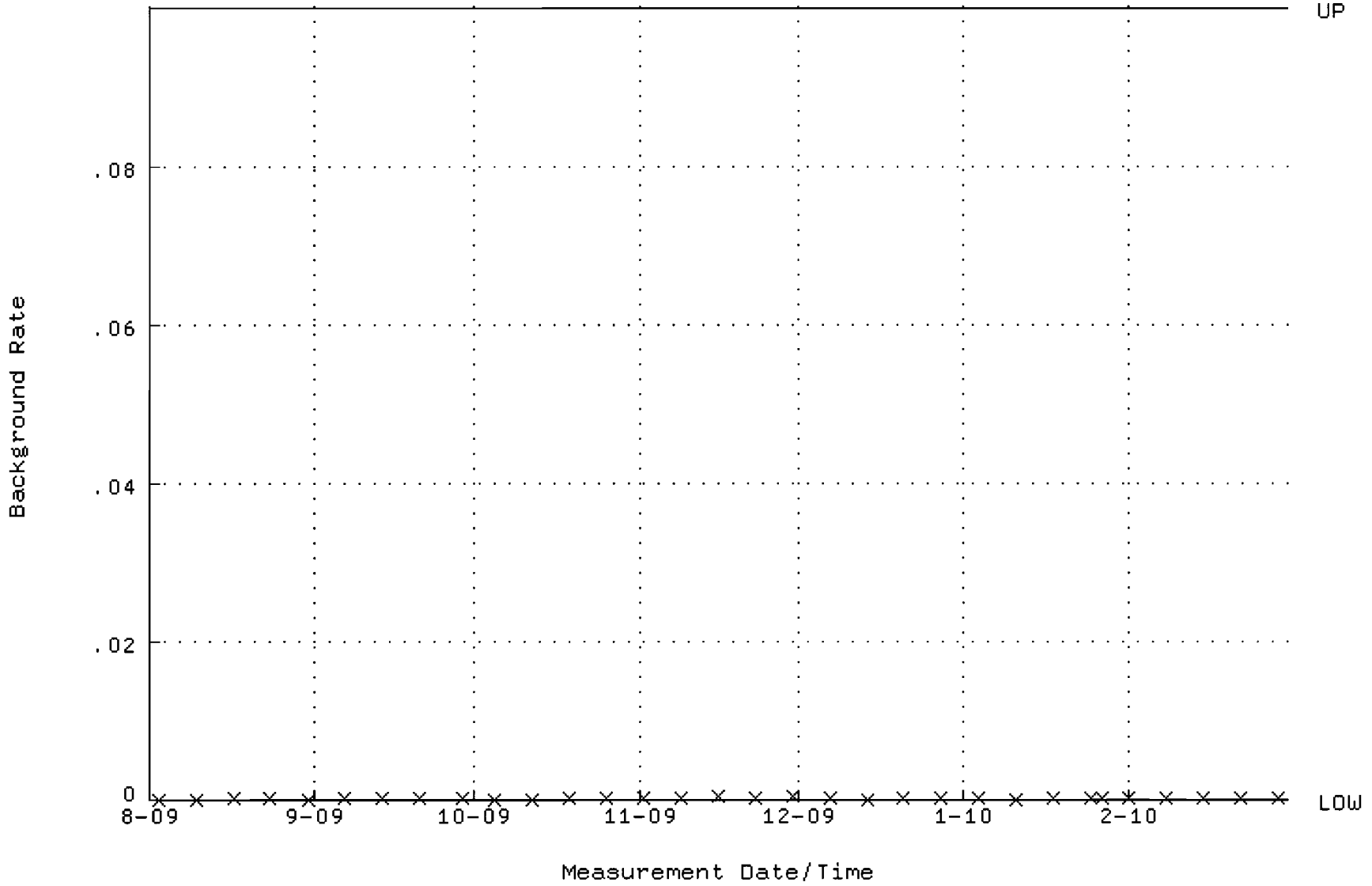
QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:18 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.363471 through 0.412689



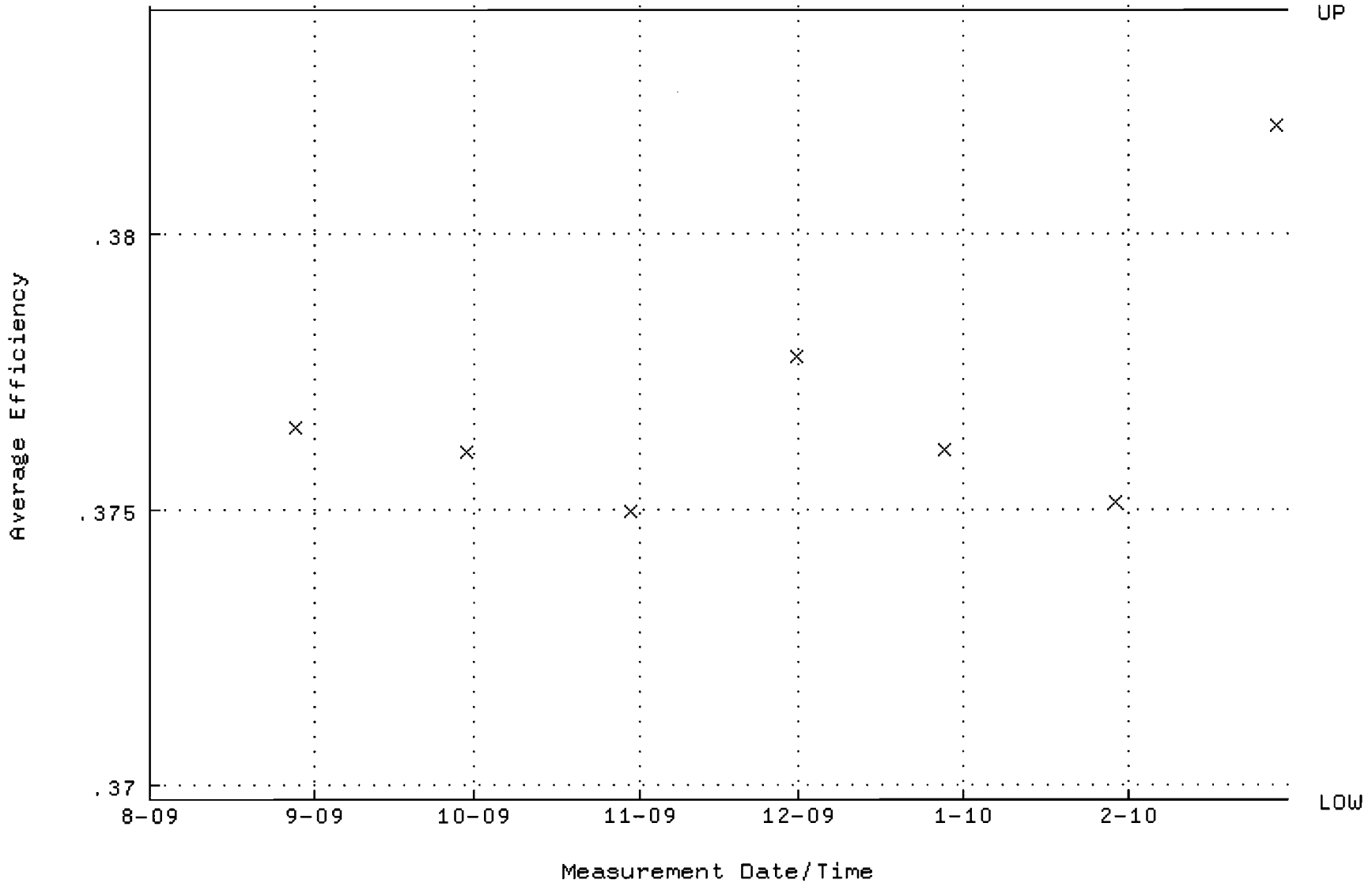
QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:18 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 83.1251 through 93.8923



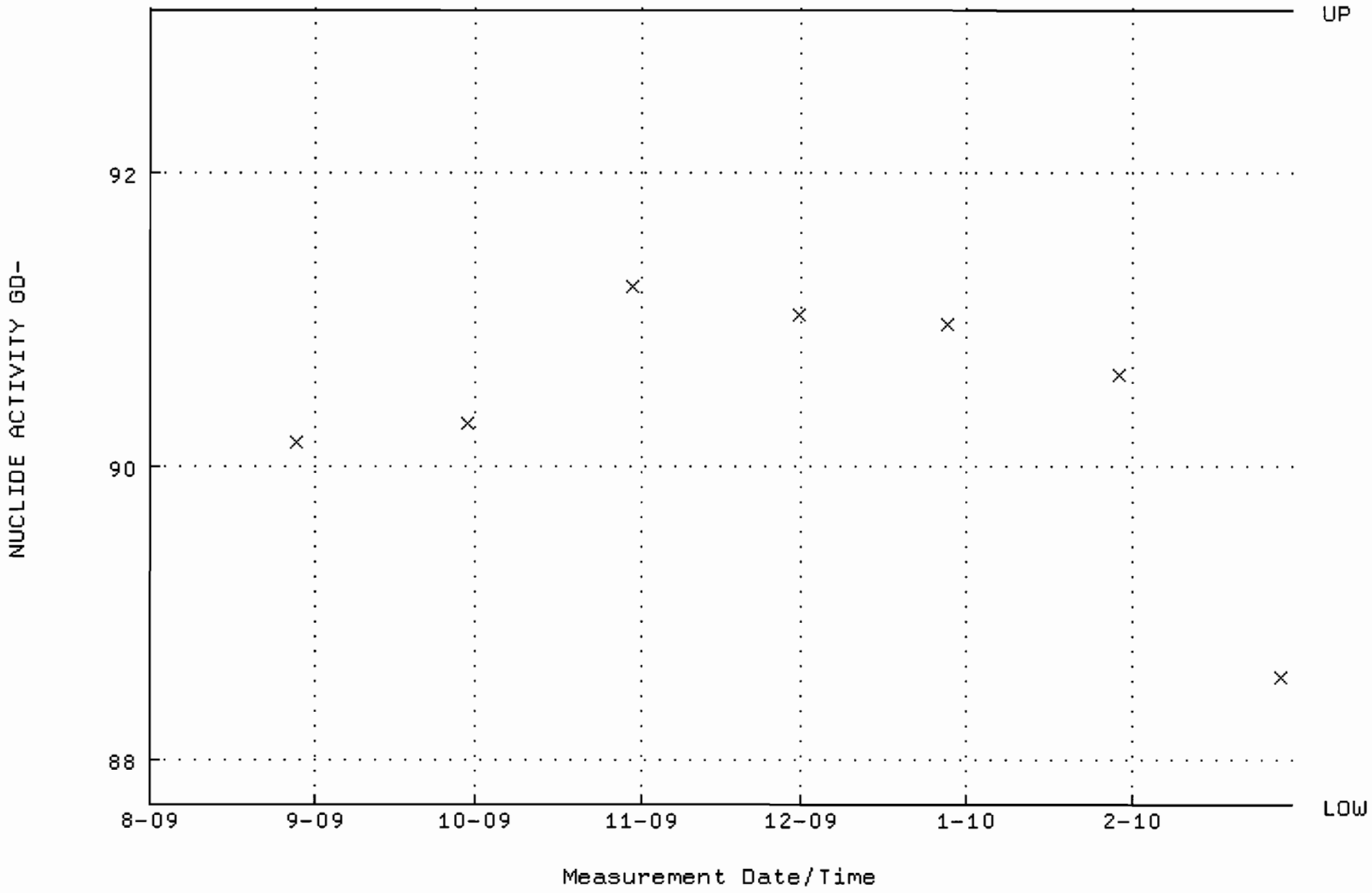
QA filename : DKA100:[ENV_ALPHA.QA.B]B219.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:52 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



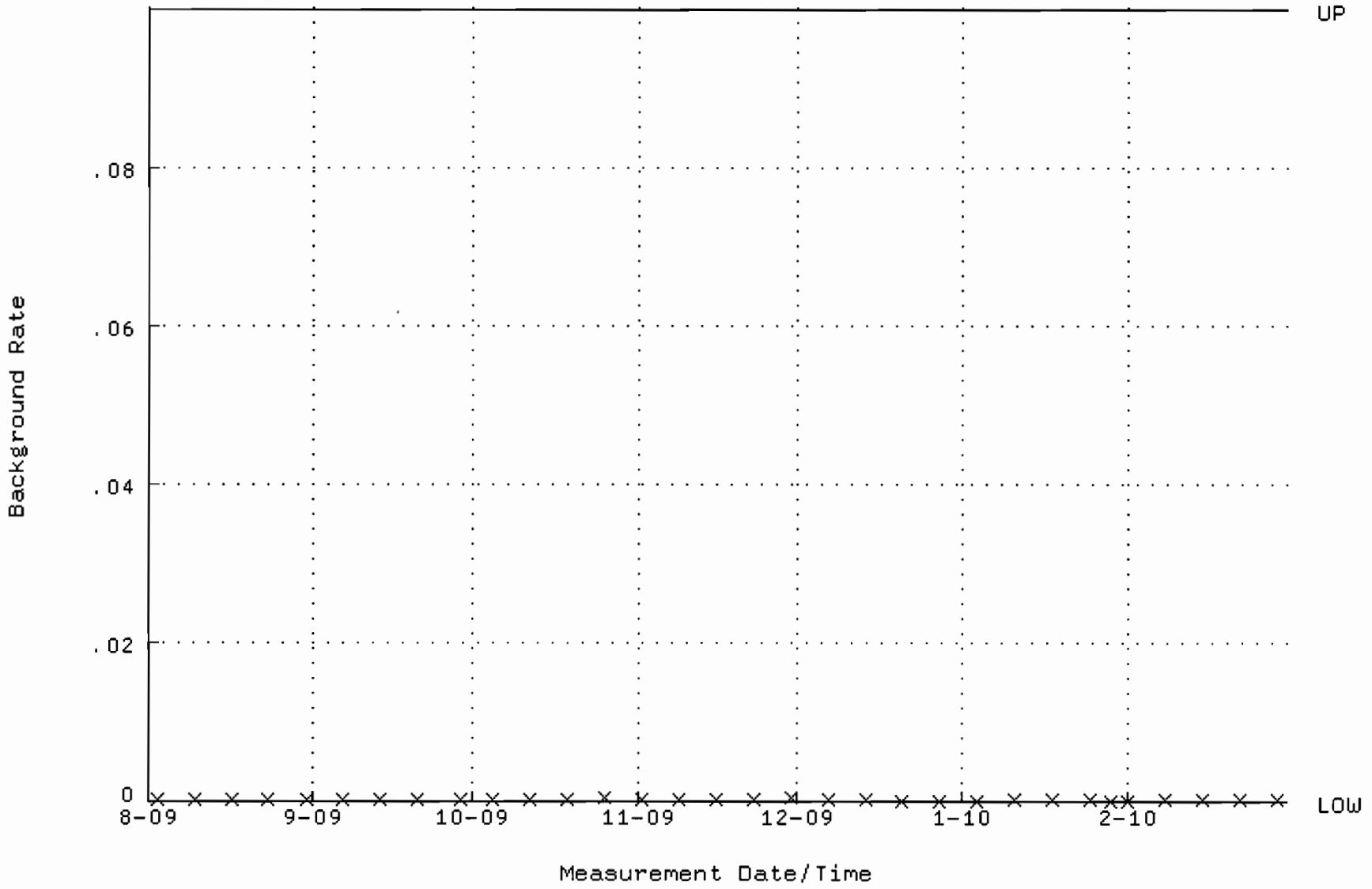
QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:19 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.369716 through 0.384082



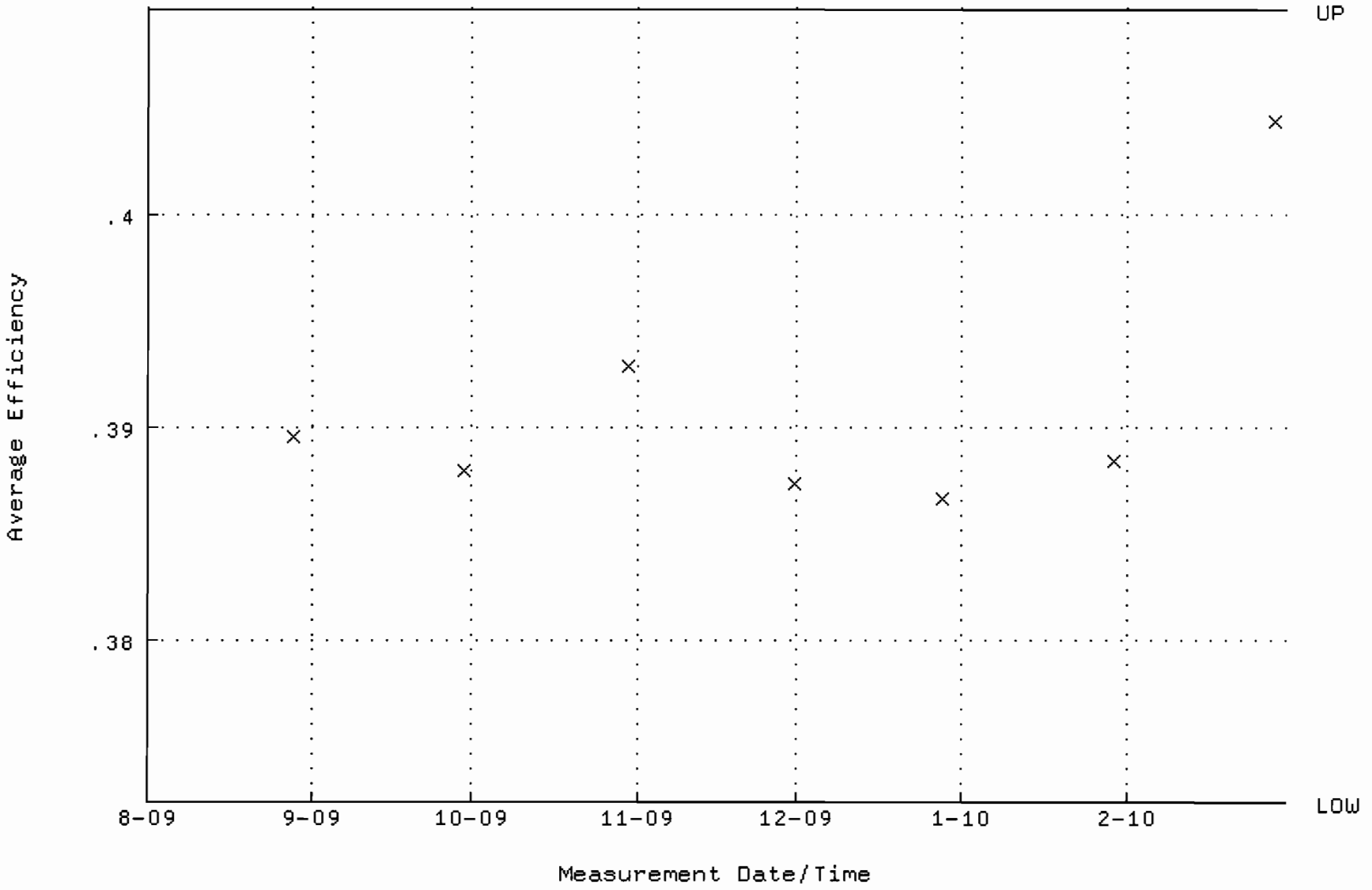
QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:19 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 87.6979 through 93.1141



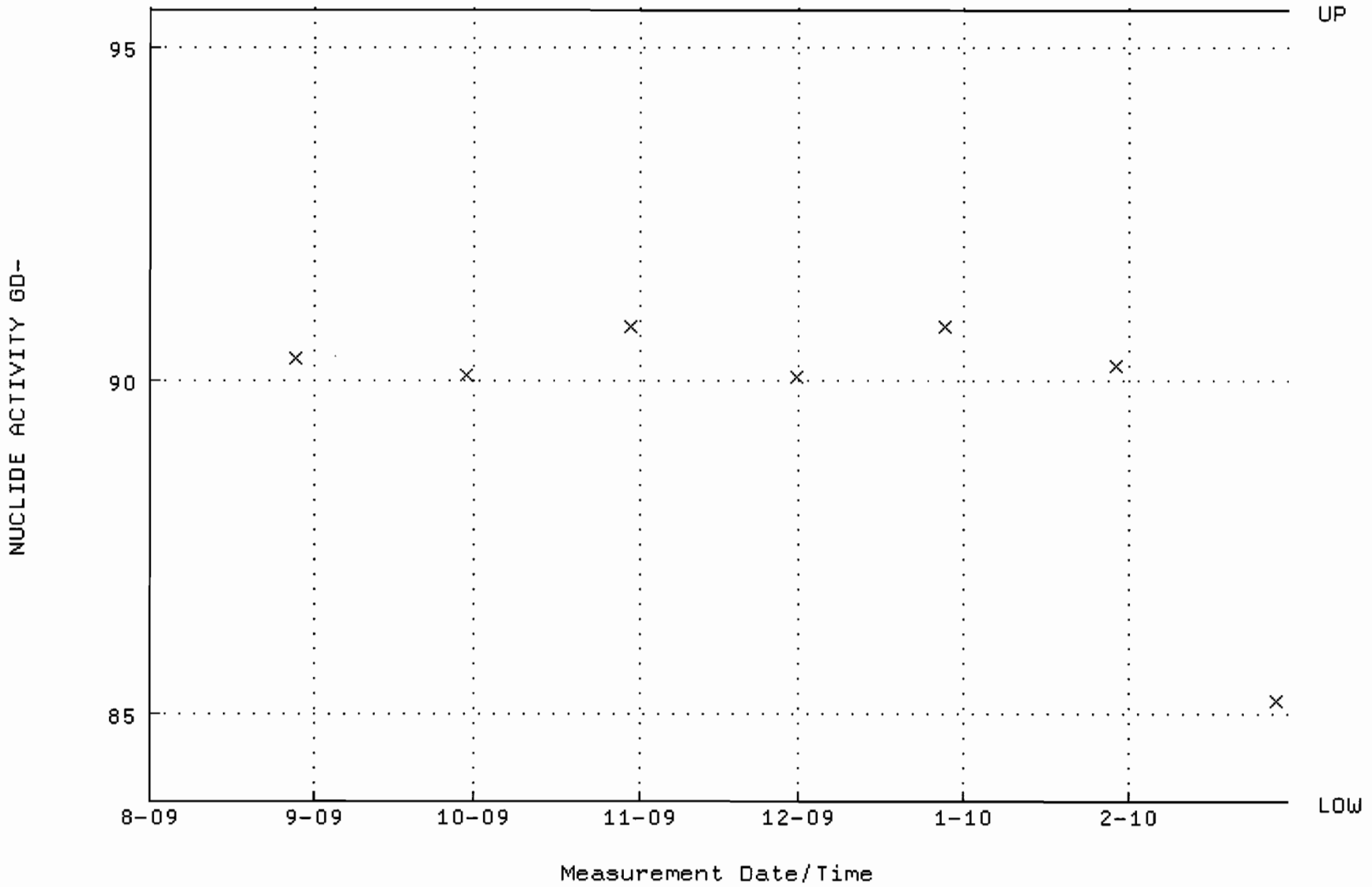
QA filename : DKA100:[ENV_ALPHA.QA.B]B230.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:38 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



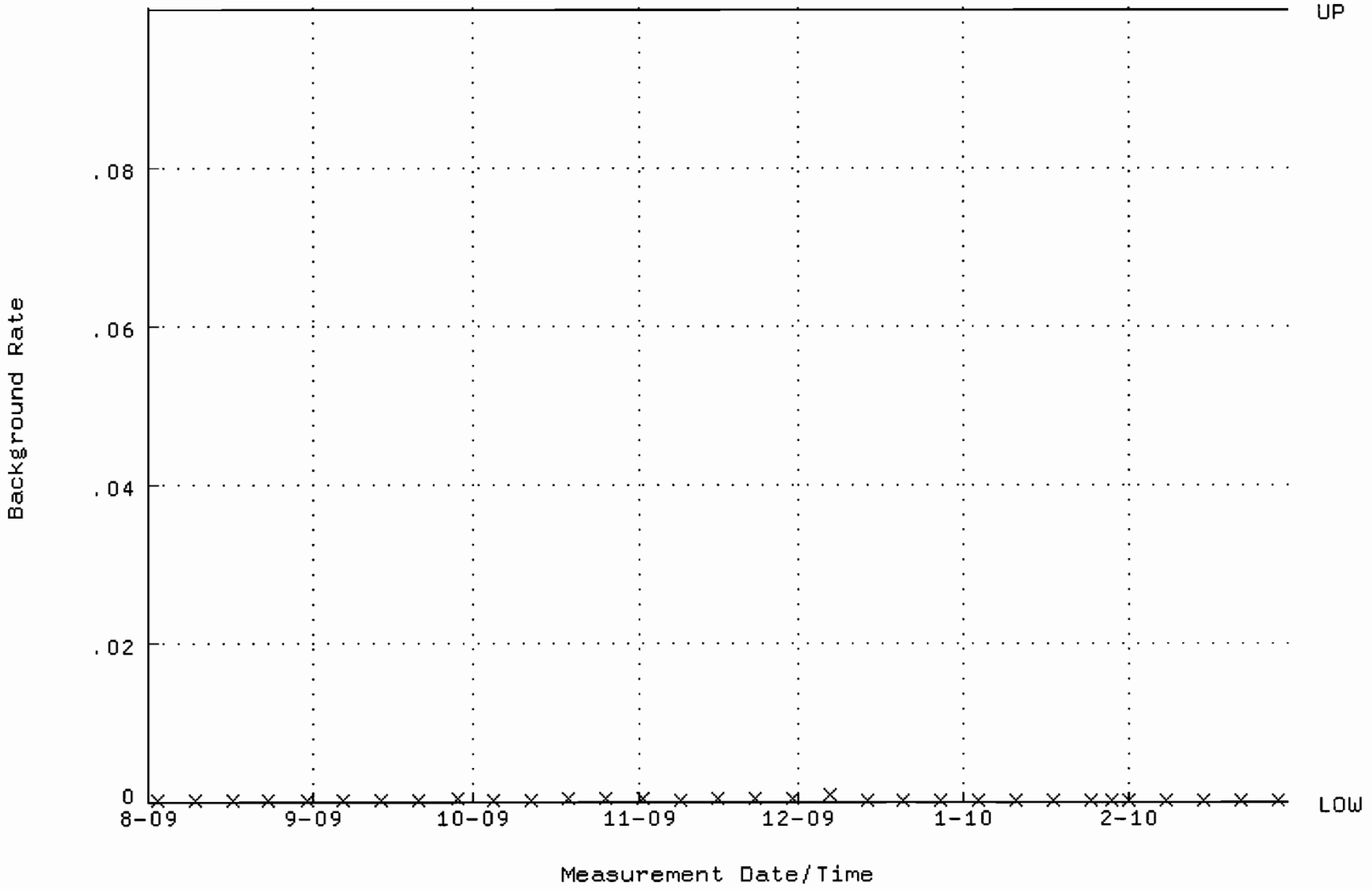
QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:24 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.372352 through 0.409678



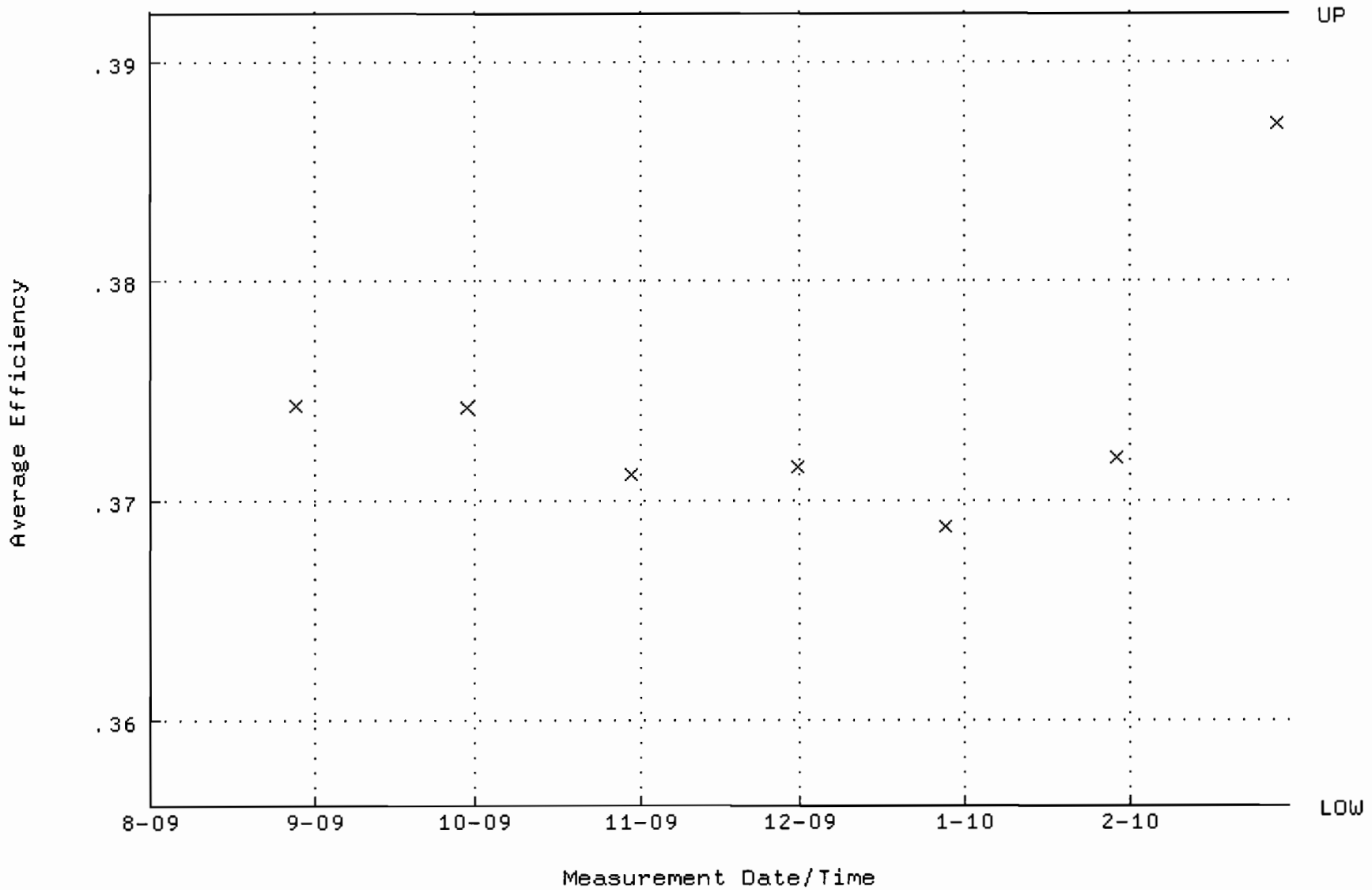
QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:24 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 83.6949 through 95.5595



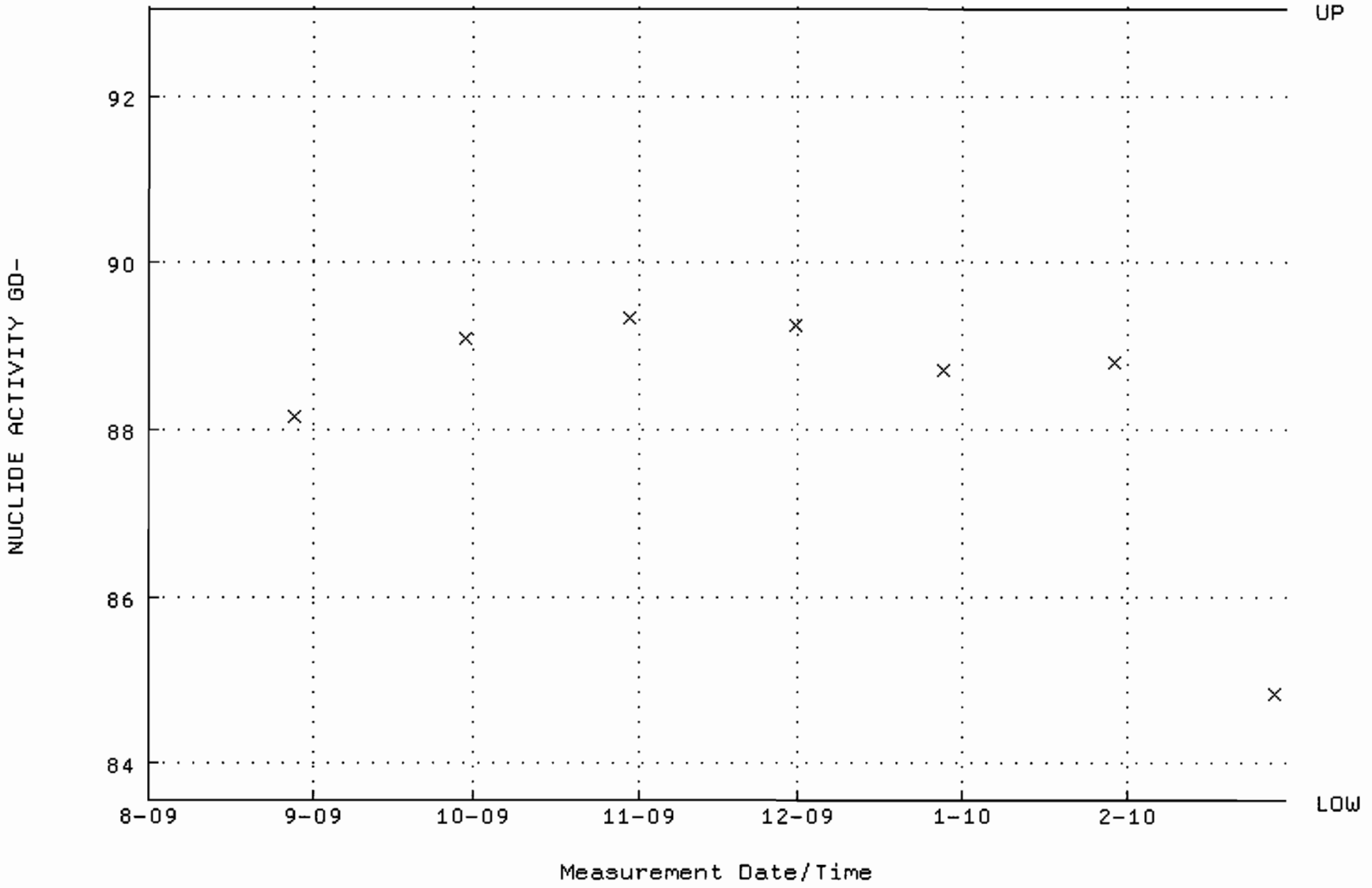
QA filename : DKA100:[ENV_ALPHA.QA.B]B231.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:43 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



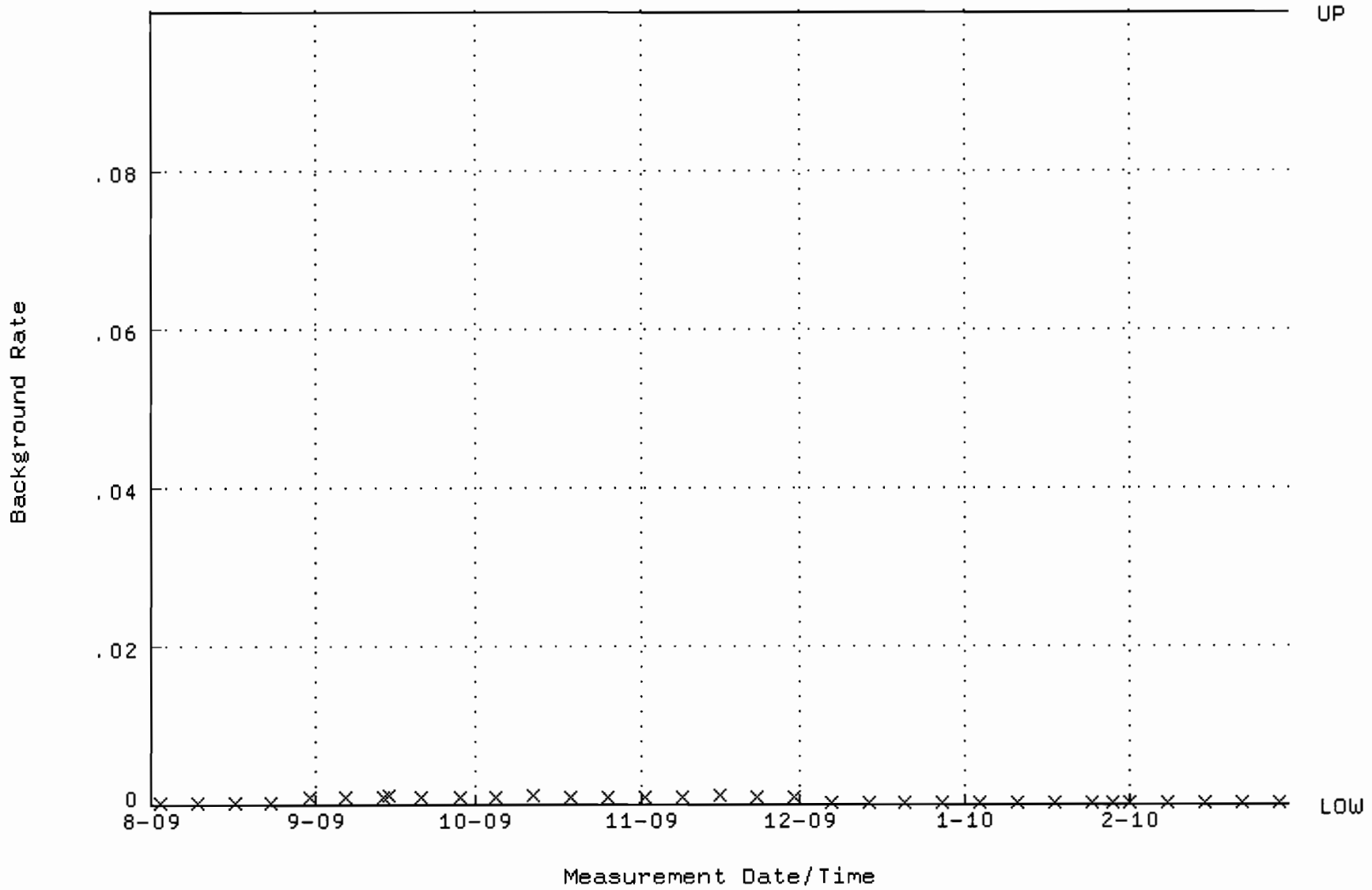
QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:30 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.356063 through 0.392181



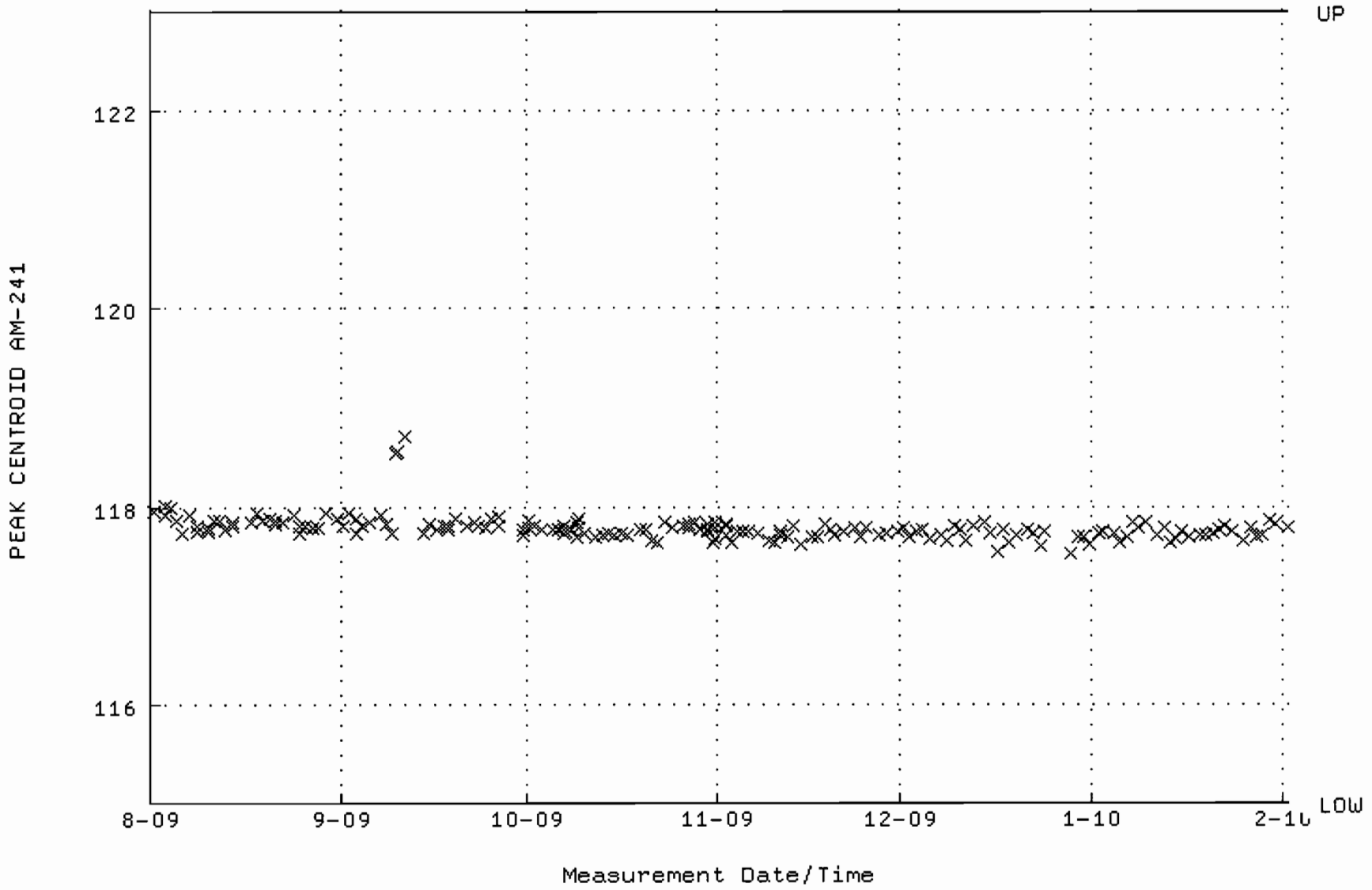
QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:30 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 83.5615 through 93.0435



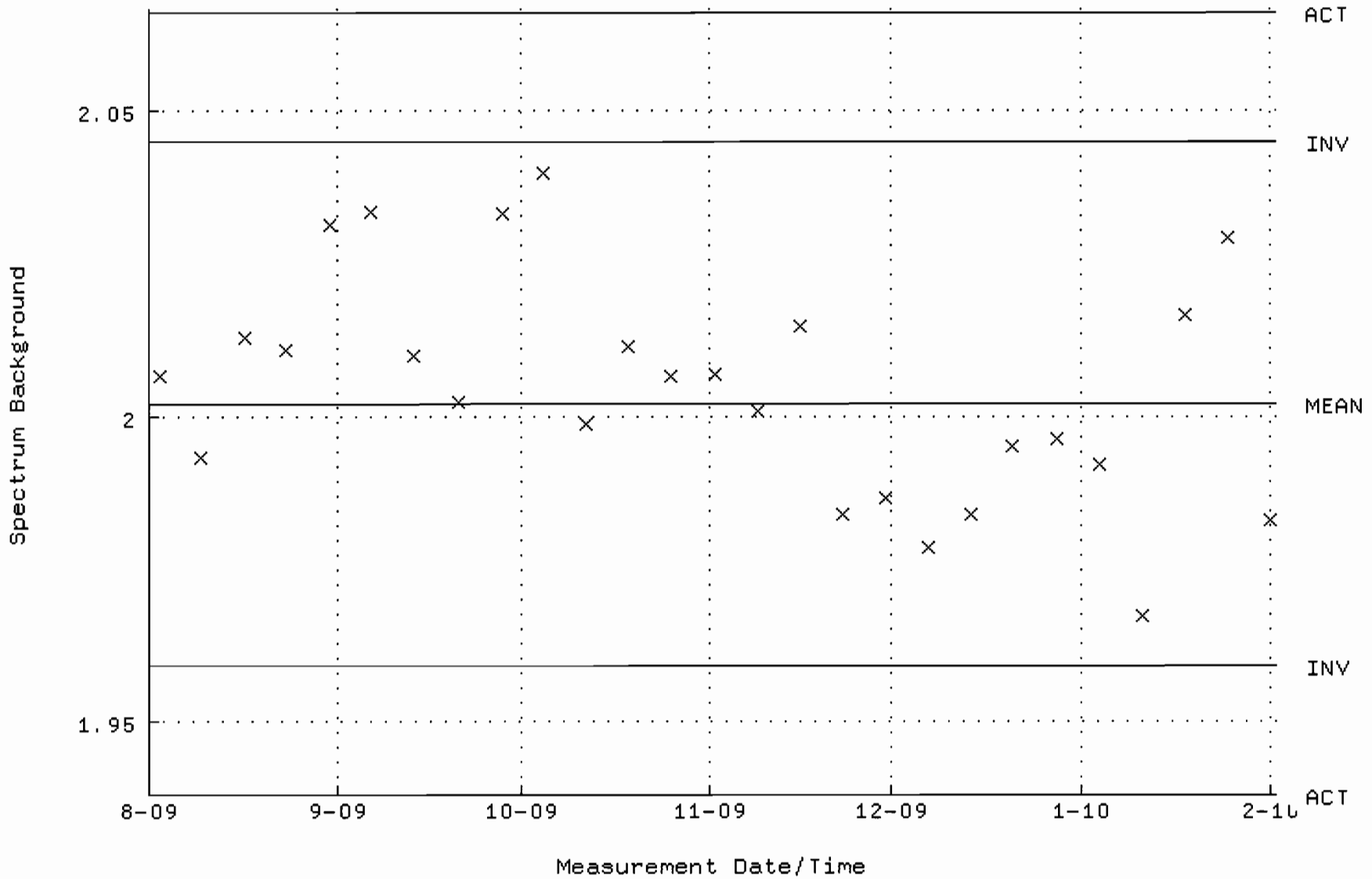
QA filename : DKA100:[ENV_ALPHA.QA.B]B232.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:47 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



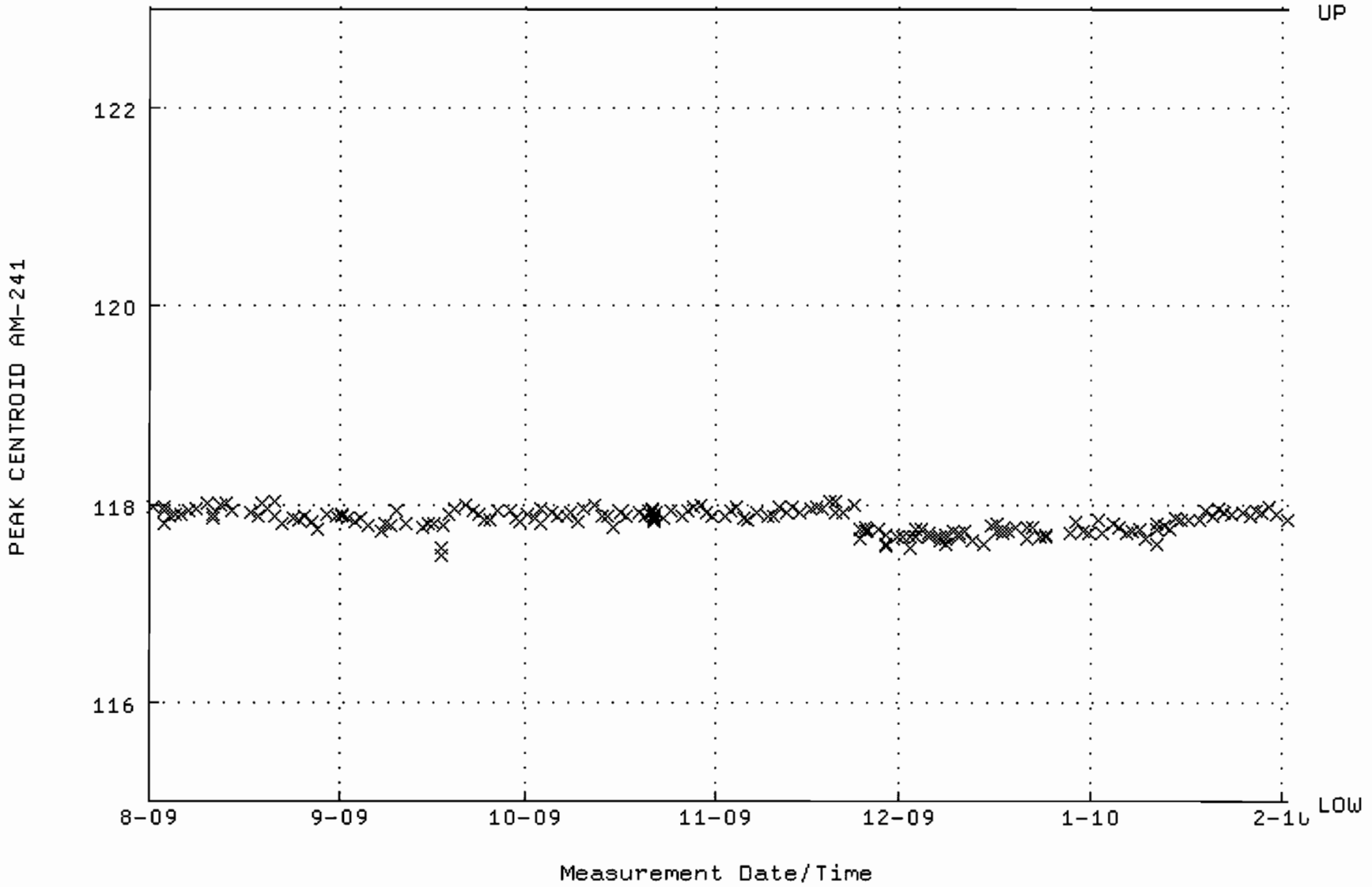
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:19:33 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



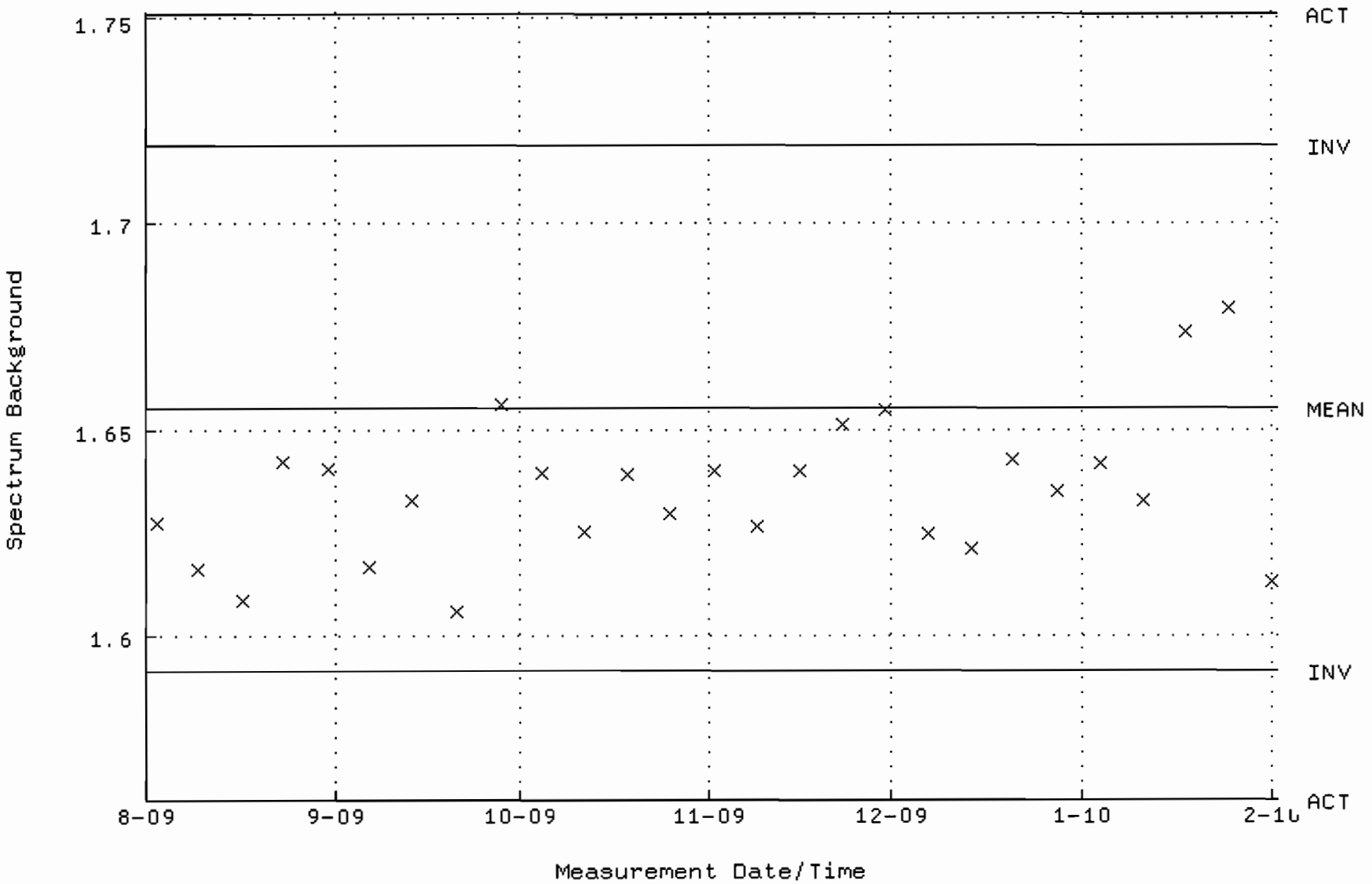
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM02.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:22:27 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.00226 +- 2.139827E-02 (1.07 %)



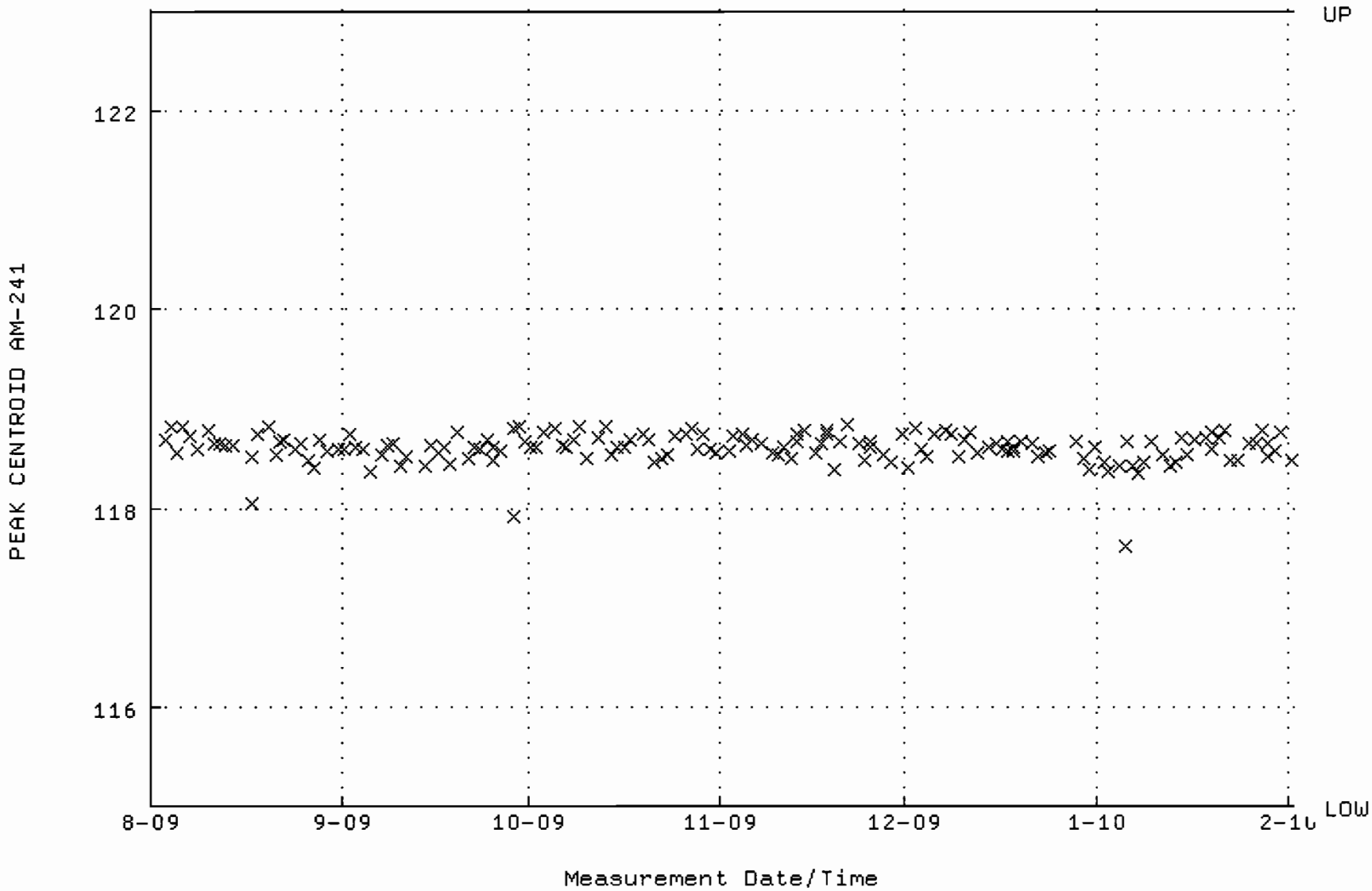
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



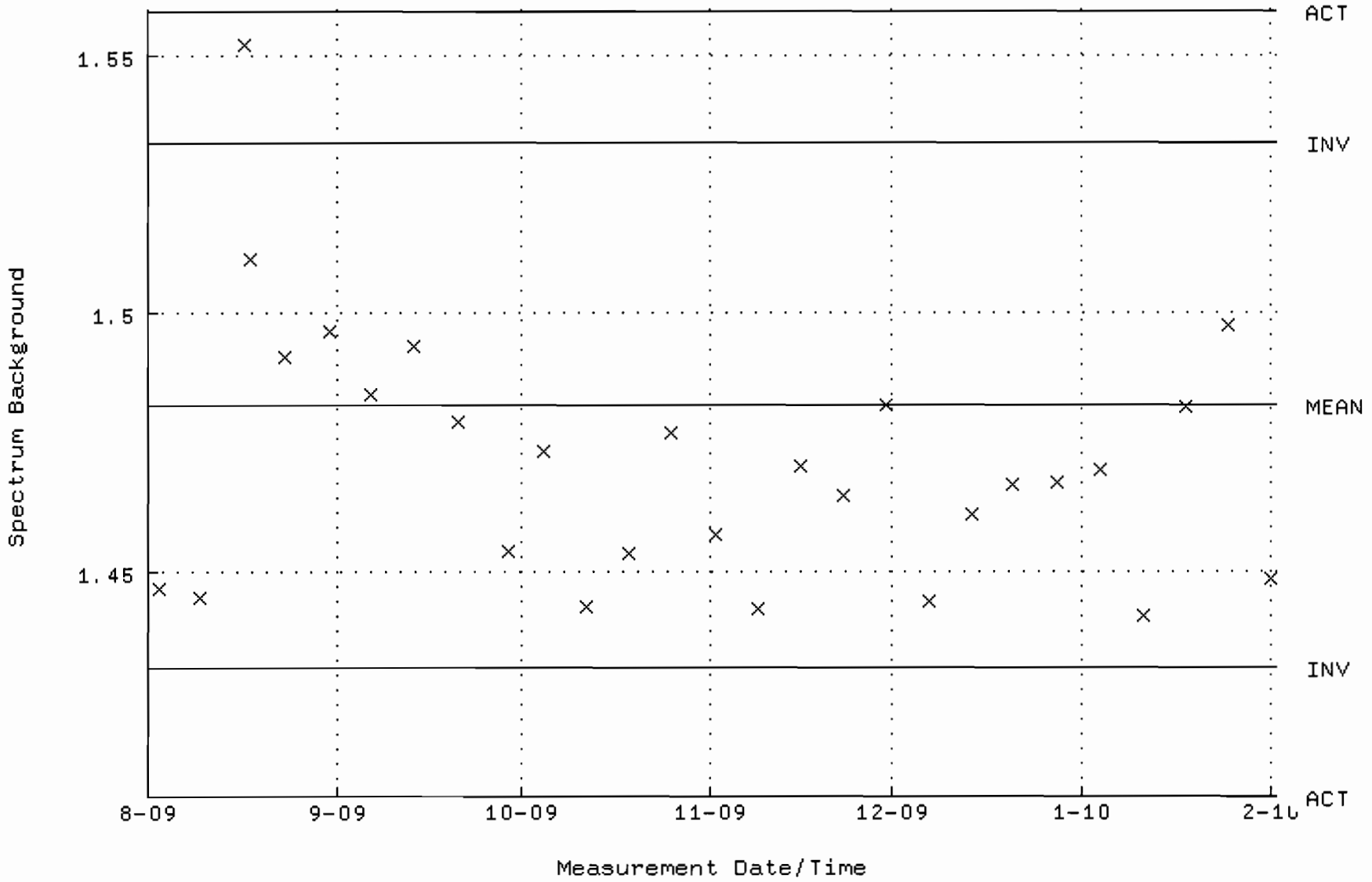
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)



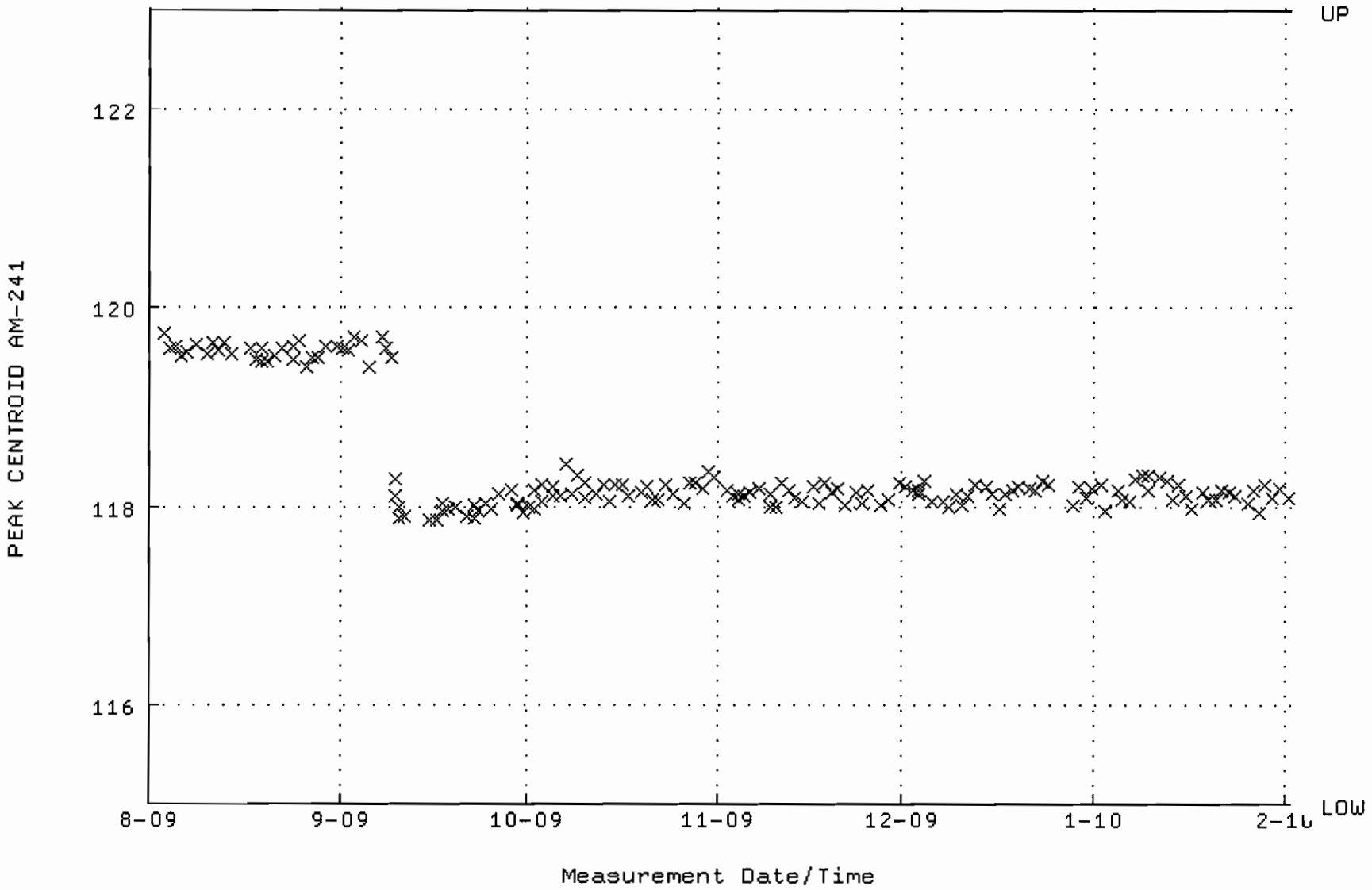
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:15:54 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



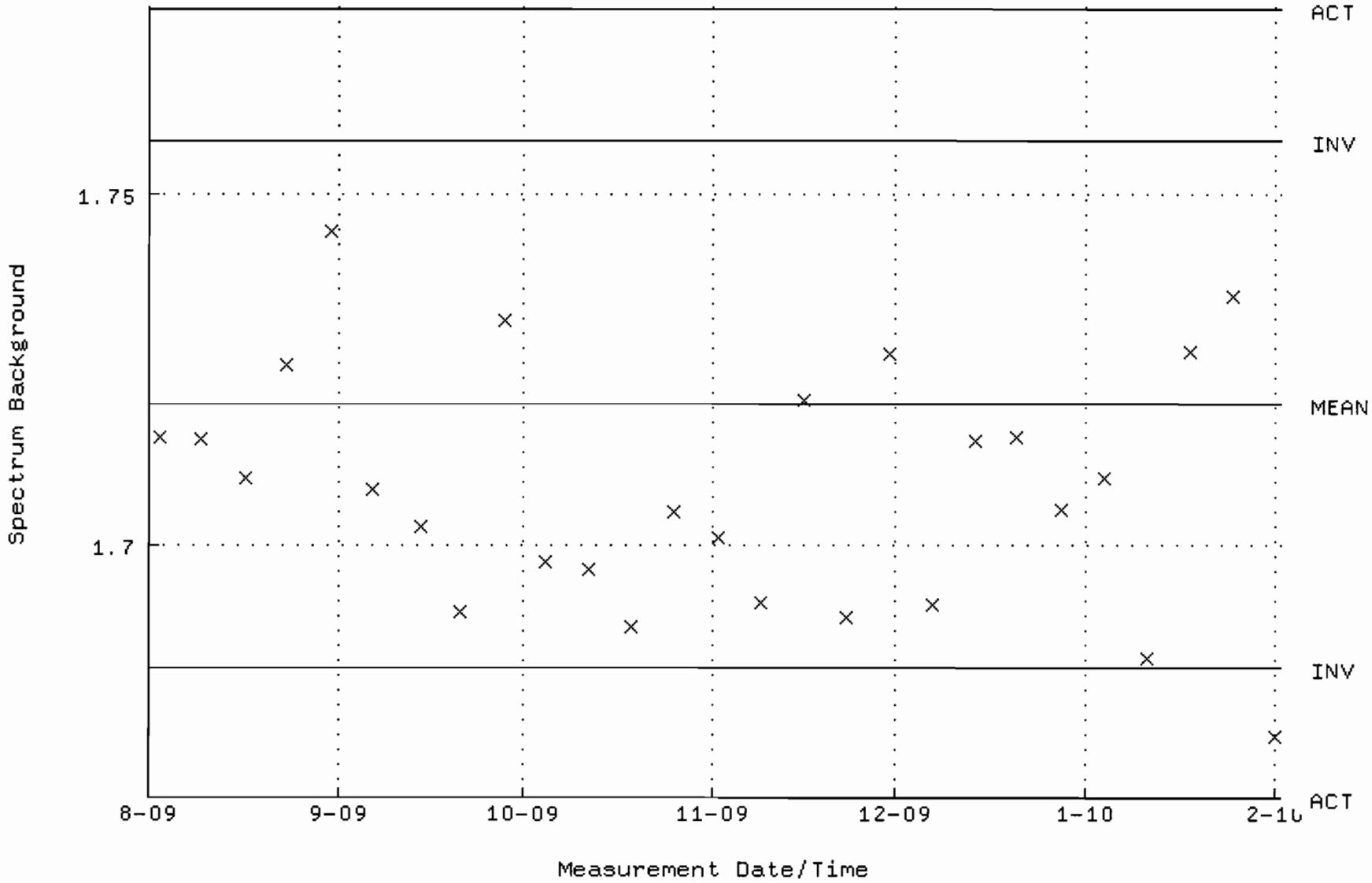
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:33 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)



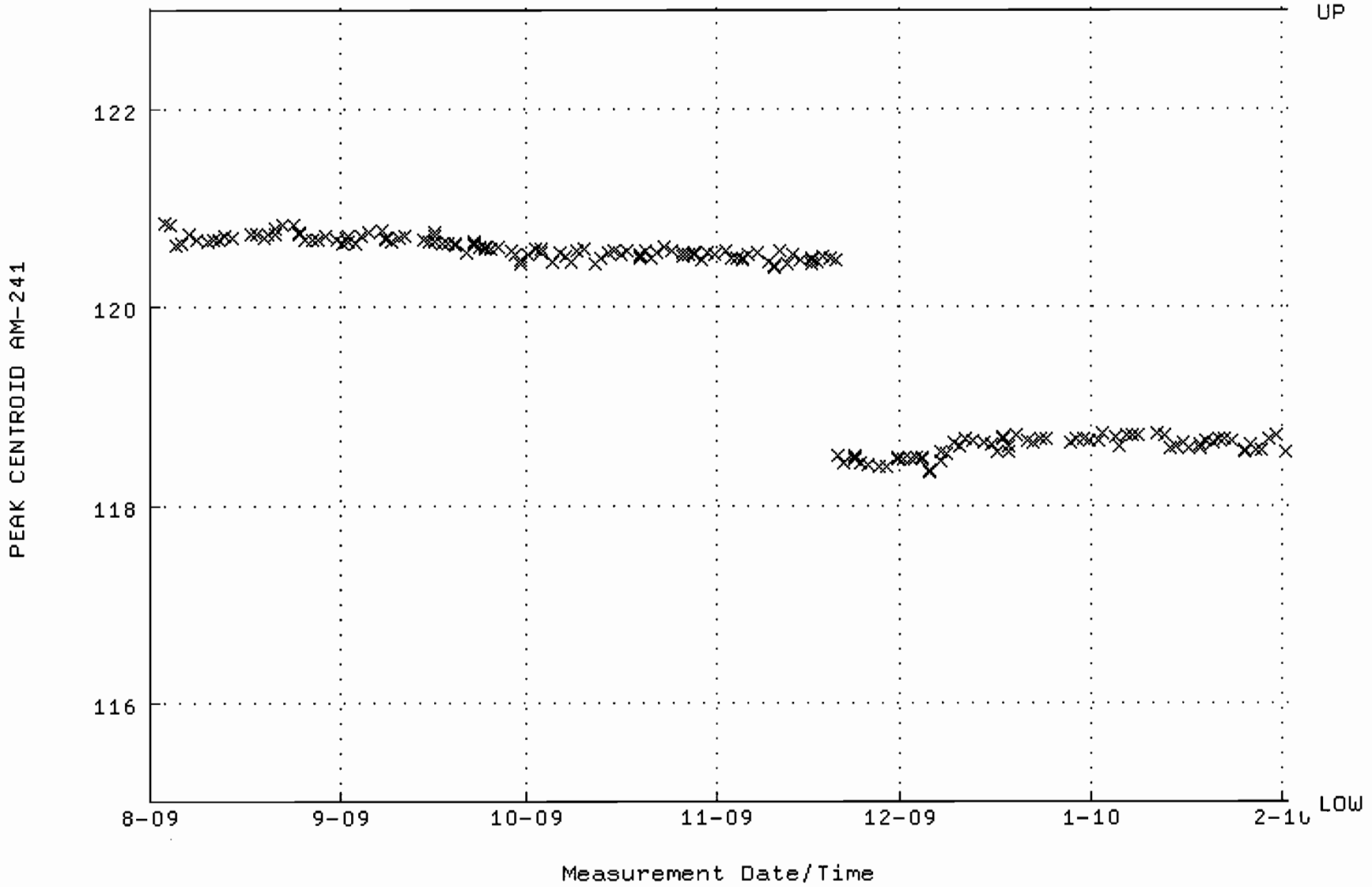
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:53:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



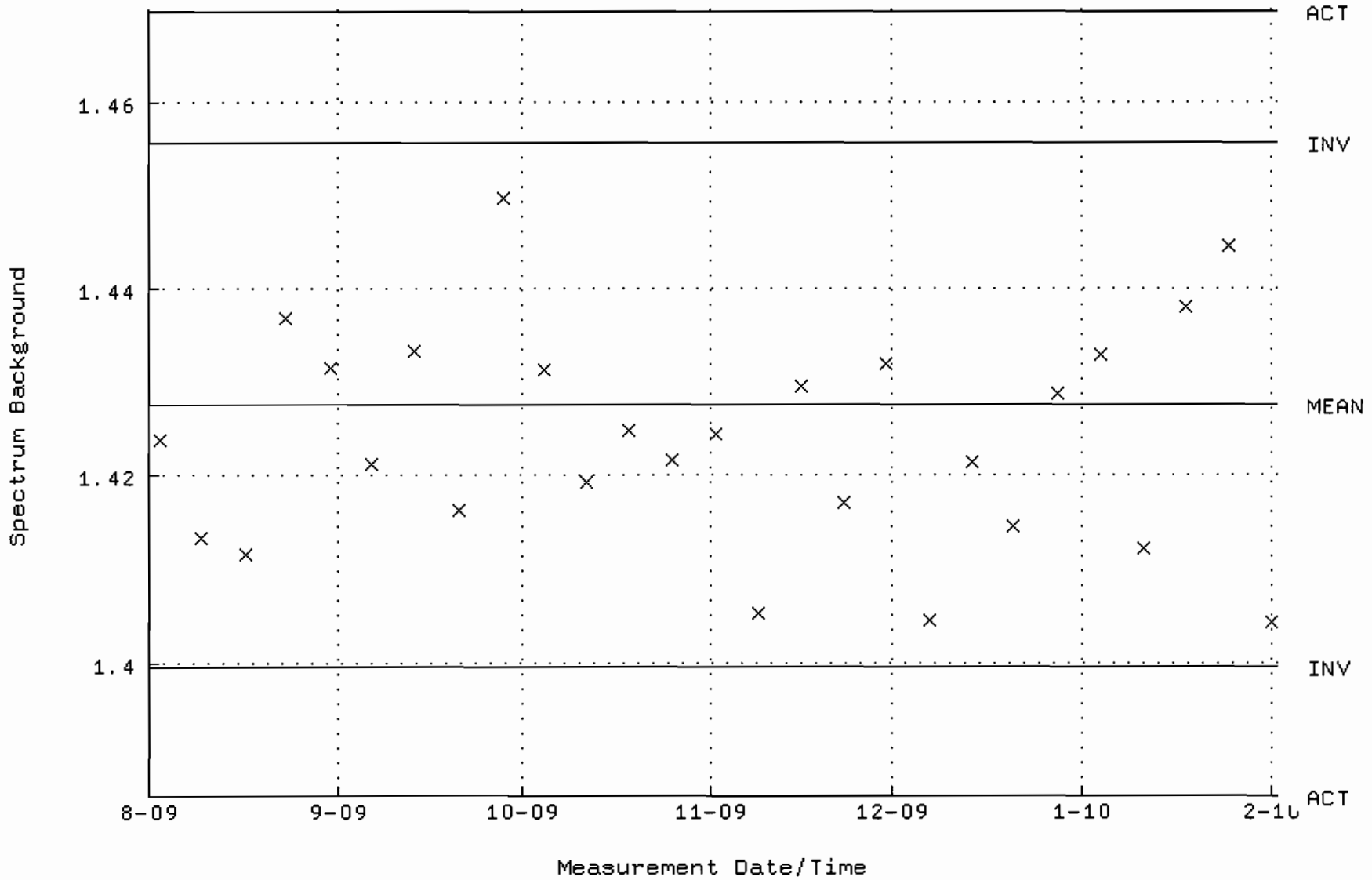
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:46 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)



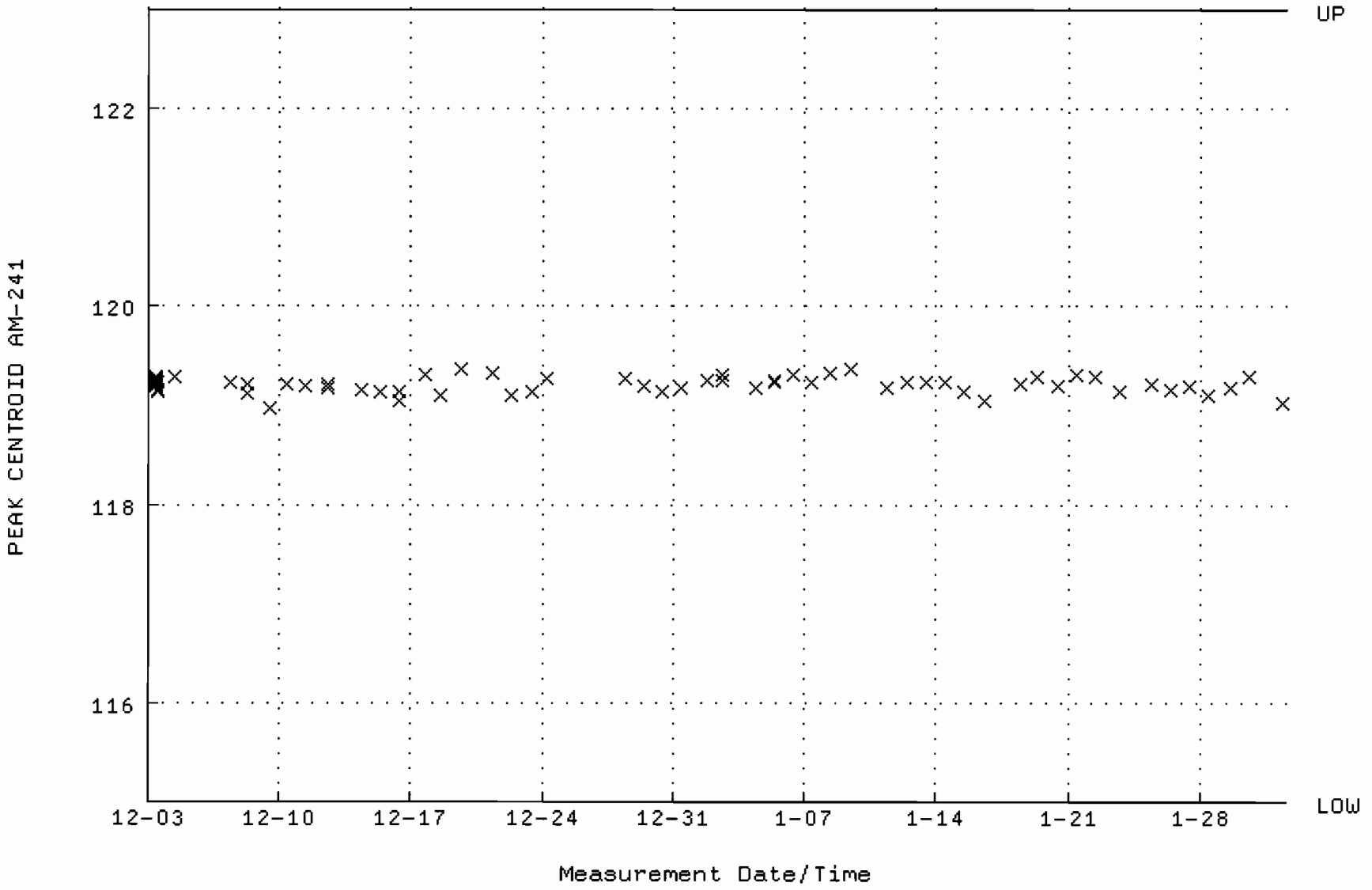
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:55:06 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



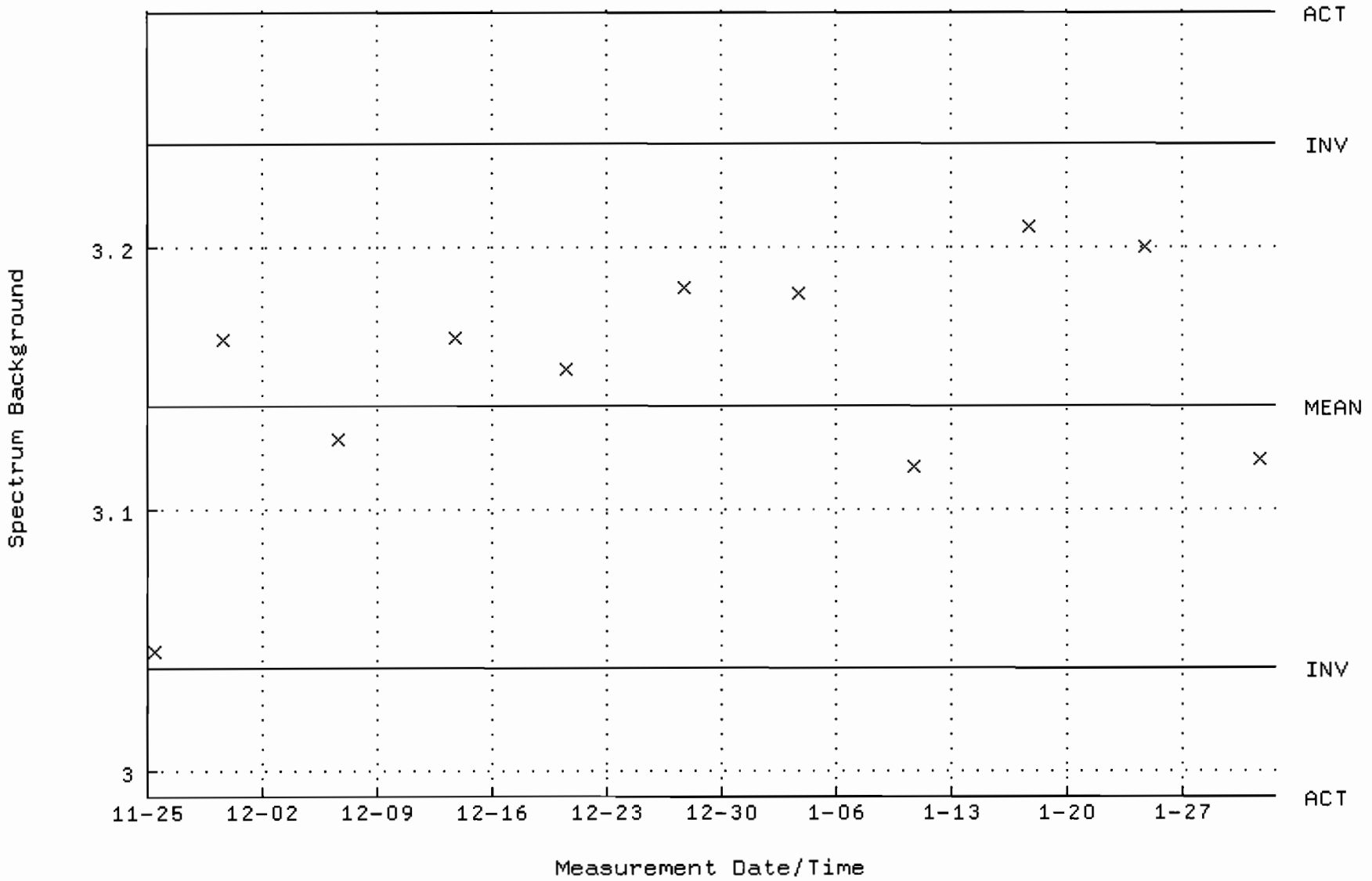
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:10 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)



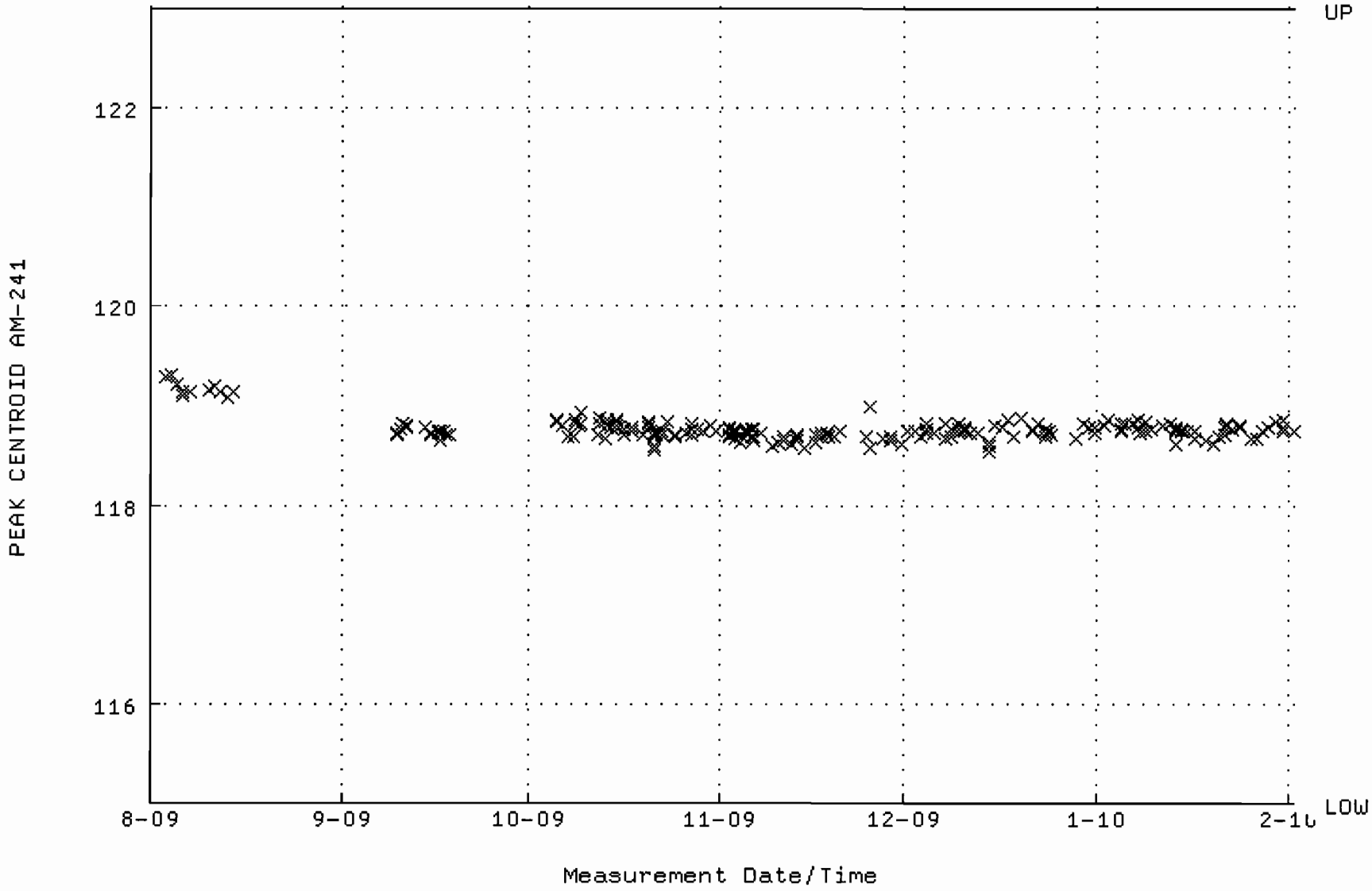
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



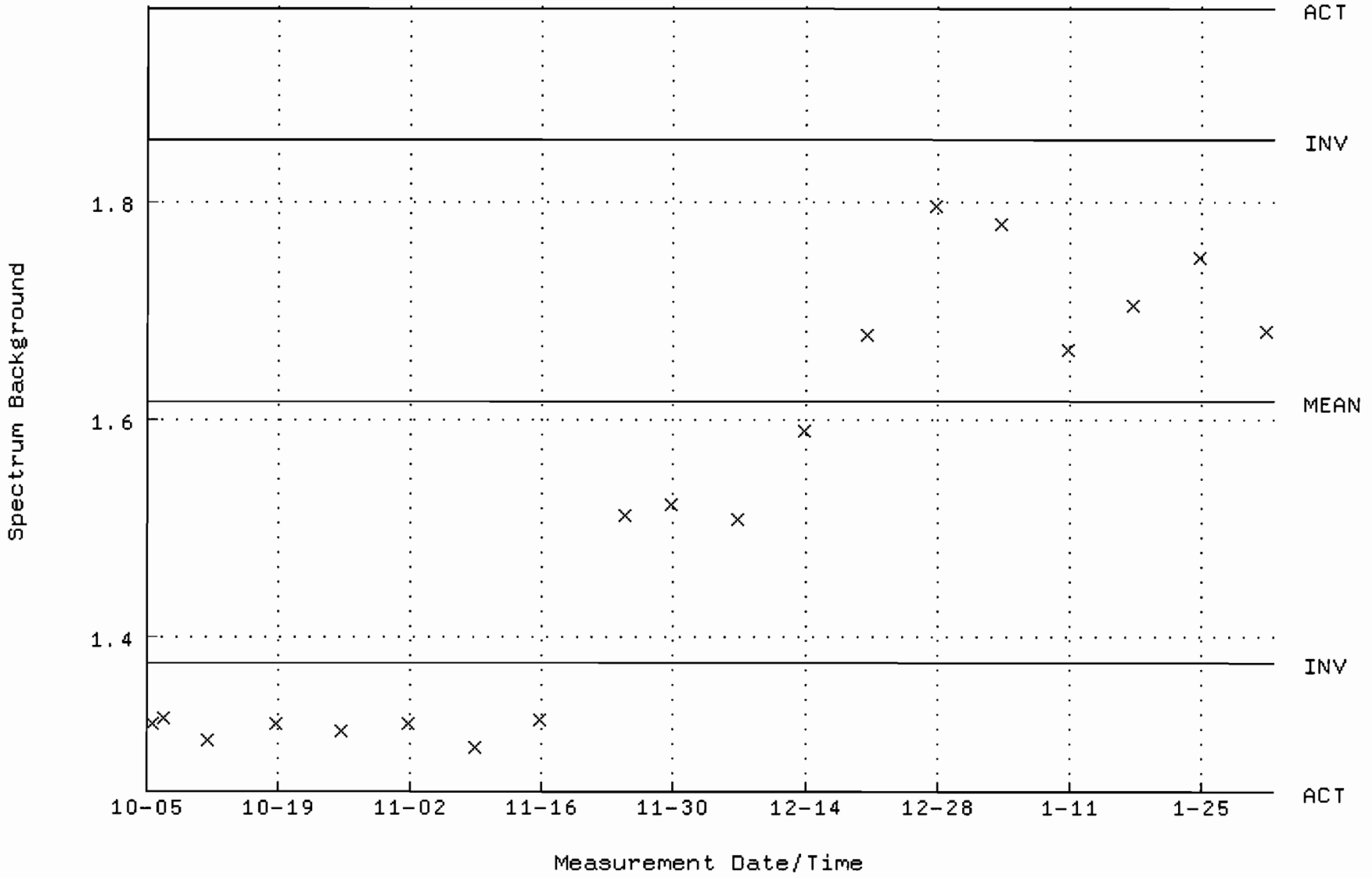
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)



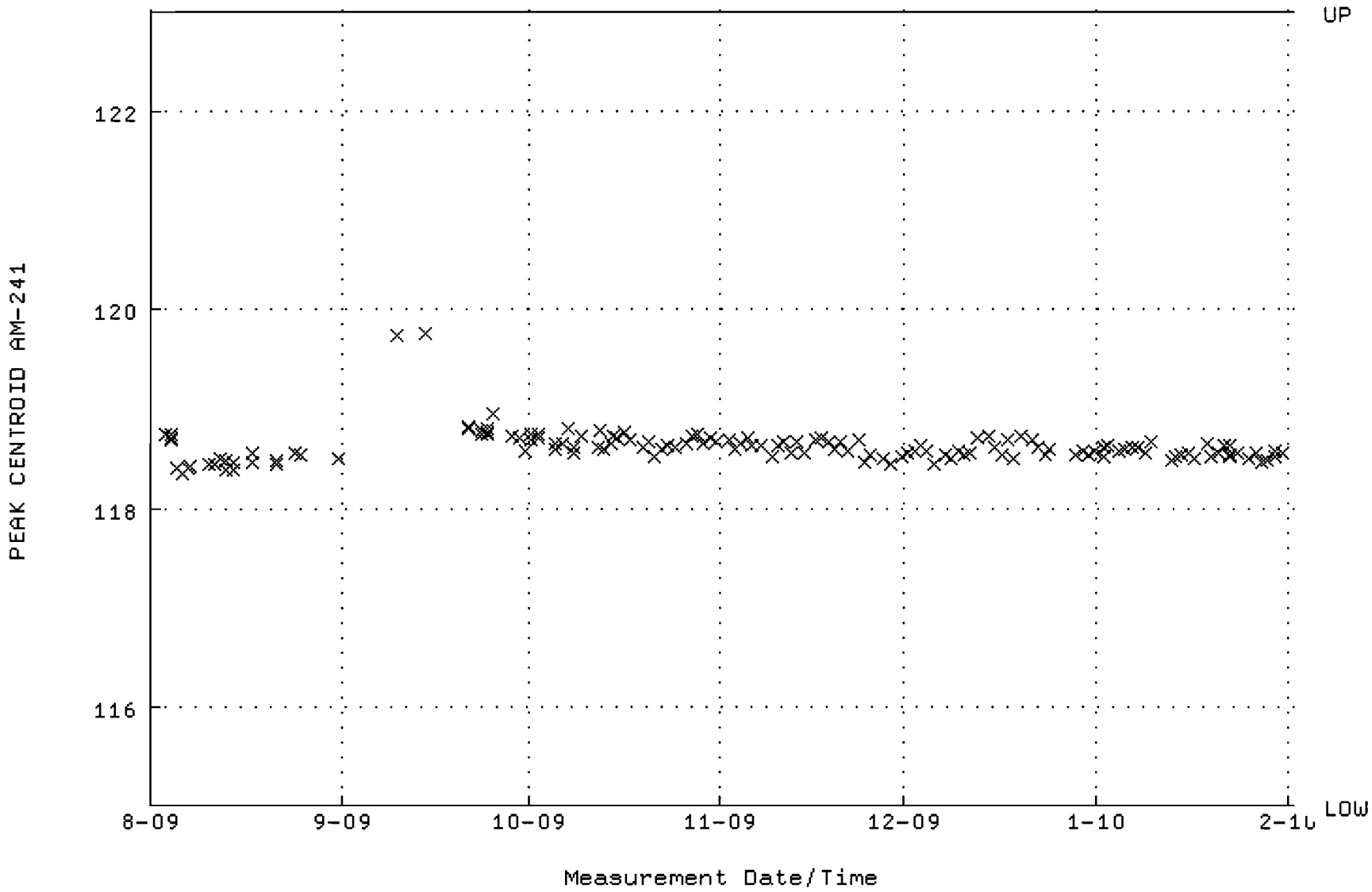
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



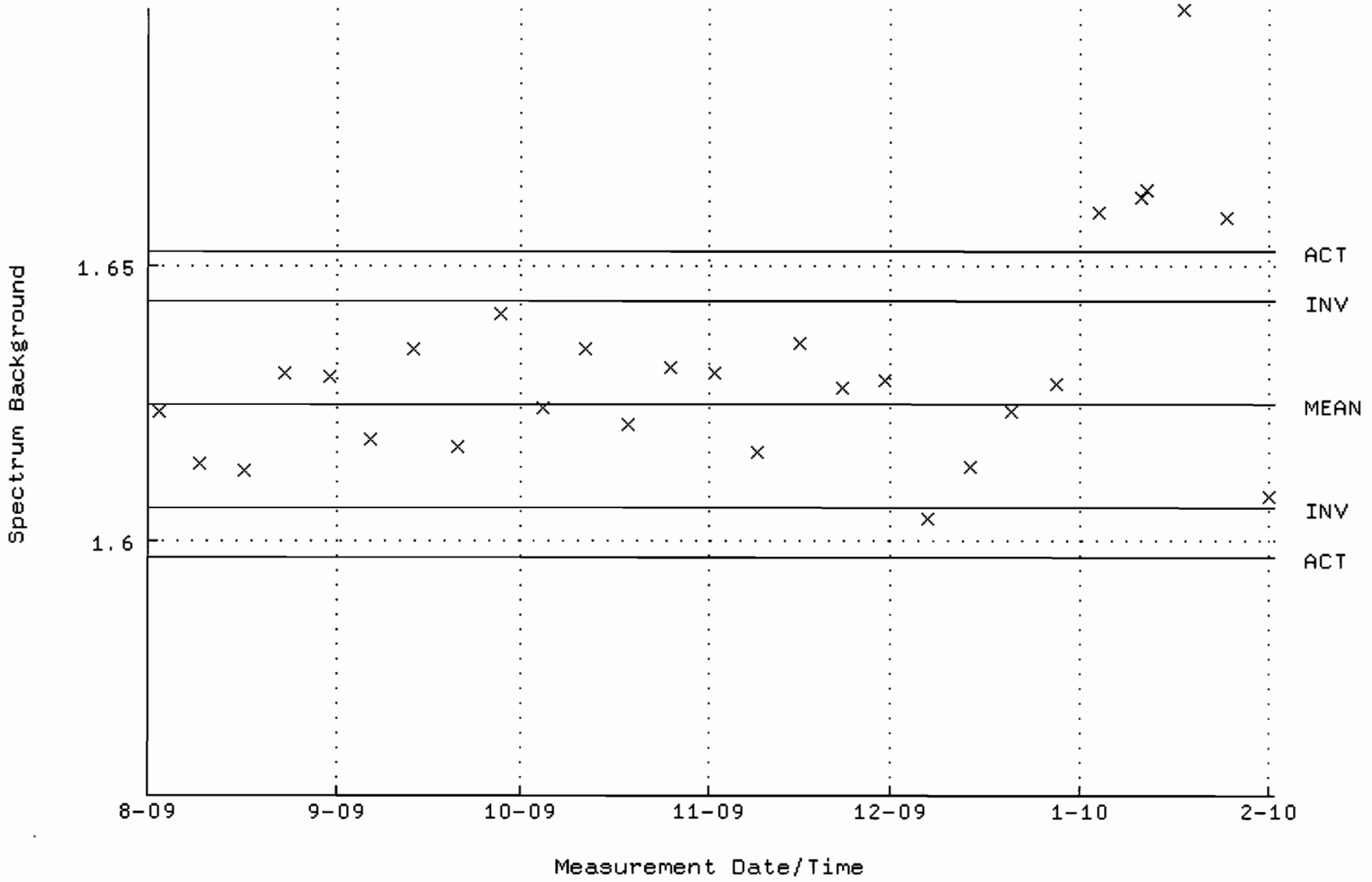
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

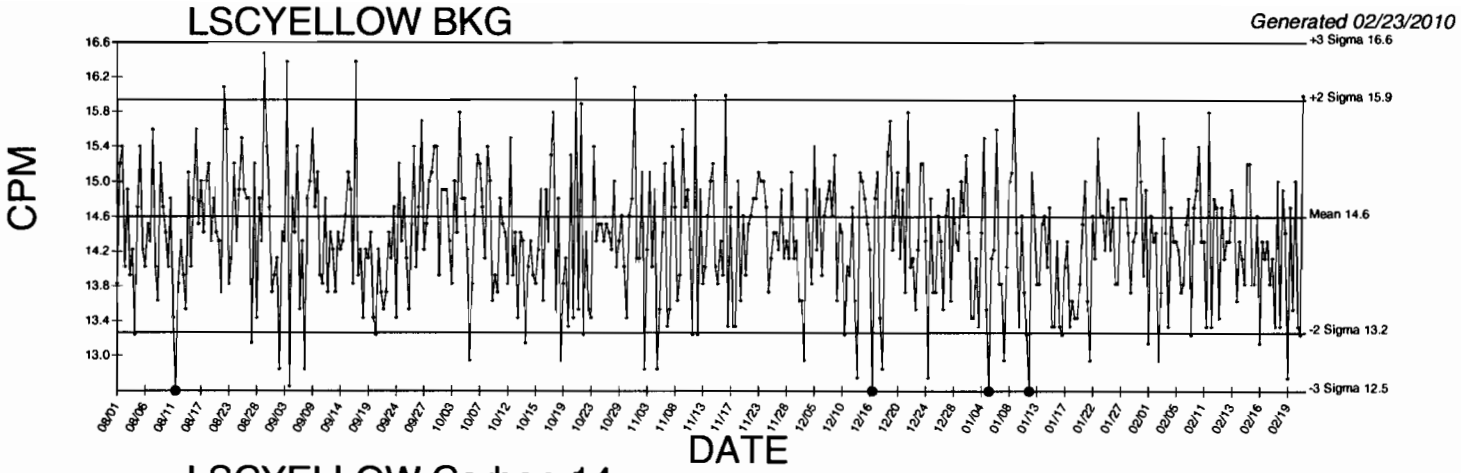


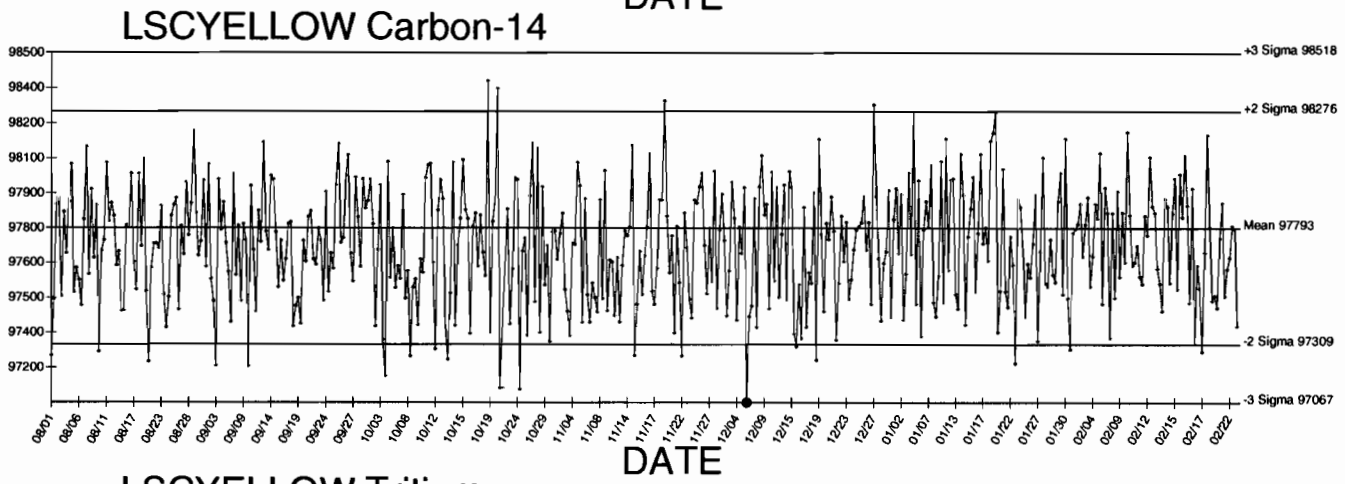
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:11:17 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

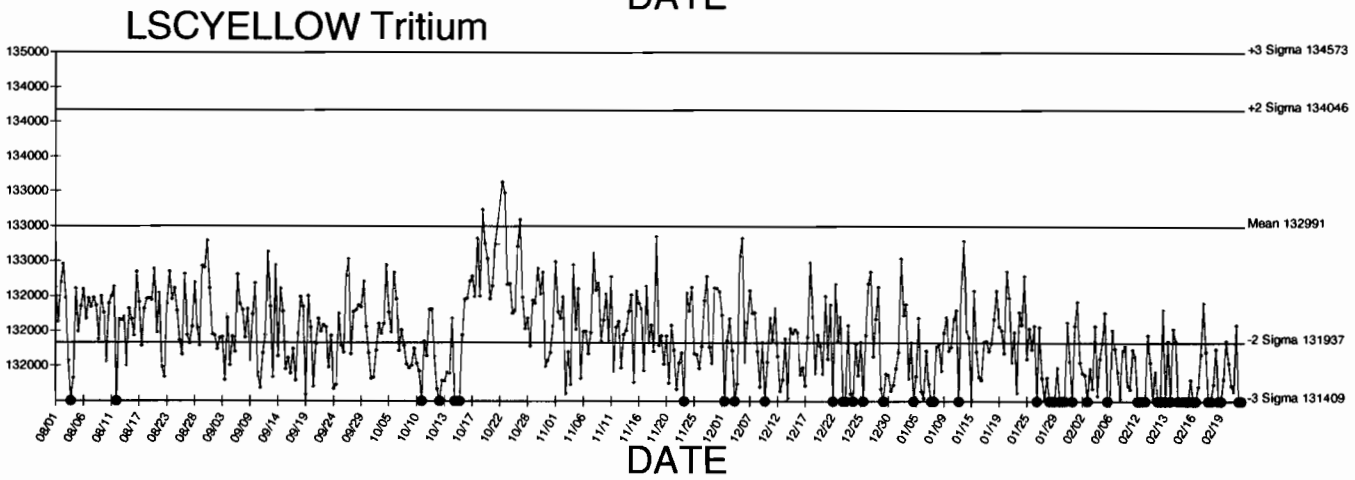


QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:26:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)









● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION
No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

RC-5-023-061a

Amersham
The Health Science Group

WF Case

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

[illegible] 4/9/09
Amanda L. [illegible] 4/9/09

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837

www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result	
	Mixed Gamma N1	2534	pCi/L - VER-JAR-1
	Mixed Gamma N2	2510	pCi/L - VER-JAR-3
	Mixed Gamma N3	2413	pCi/L - VER-JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**
Certificate Value =	2485.68018	pCi/L	
Lower Limit =	2357.536524	pCi/L	
Upper Limit =	2613.796809	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	128.1301422		
10 % of Mean =	248.56666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Scott C Reid 12/1/04

Angela A. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01-70

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location Tech Area VI
Building N/A Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐ Yes ☒ No Ref. No.
Sample Disposal ☐ Return to Client ☒ Disposal by lab
Turnaround Time ☒ Normal ☐ Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by
QC Units

Special Instructions/QC Requirements
EDD ☐ Yes ☒ No
Raw data package ☐ Yes ☒ No
These "samples" are well characterized rad materials being sent to GEL on behalf of Mark Mintzer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	[initials]	Weston / 7577 / 845-0867

1. Relinquished by	[signature]	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White)
1st Copy To Accompany Samples, Return to SMO (Blue)
2nd Copy SMO Suspense Copy (Yellow)
3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATE 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI
Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
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050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

QC Units

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
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1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White)
1st Copy To Accompany Samples, Return to SMO (Blue)
2nd Copy SMO Suspense Copy (Yellow)
3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Lindeau 5/15/09

007509

1375

National Institute of Standards & Technology

Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7/21/07

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: $(373\,500 \pm 1100)$ a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	--	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10
1/12/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S'-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMD 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 952641**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246837001	SAMPLE	MXR1	GAM11	23-FEB-10 12:05	DONE	CAN	18-NOV-09 00:00
246837002	SAMPLE	MXR1	GAM15	23-FEB-10 12:05	DONE	CAN	03-FEB-10 00:00
246837003	SAMPLE	MXR1	GAM17	23-FEB-10 12:06	DONE	CAN	06-JAN-10 00:00
246837004	SAMPLE	MXR1	GAM22	23-FEB-10 12:06	DONE	CAN	02-DEC-09 00:00
246837005	SAMPLE	MXR1	GAM25	23-FEB-10 12:07	DONE	CAN	07-OCT-09 00:00
246837006	SAMPLE	MXR1	GAM02	23-FEB-10 12:13	DONE	CAN	29-OCT-09 00:00
246841001	SAMPLE	MXR1	GAM14	23-FEB-10 12:54	DONE	CAN	06-MAR-09 00:00
246841002	SAMPLE	MXR1	GAM23	23-FEB-10 12:54	DONE	CAN	02-JUN-09 00:00
246841003	SAMPLE	MXR1	GAM16	23-FEB-10 13:11	DONE	CAN	16-NOV-09 00:00
246843002	SAMPLE	MXR1	GAM10	23-FEB-10 13:33	DONE	CAN	16-MAR-09 00:00
246843003	SAMPLE	MXR1	GAM18	23-FEB-10 13:33	DONE	CAN	23-APR-09 00:00
246843004	SAMPLE	MXR1	GAM21	23-FEB-10 13:34	DONE	CAN	28-JUL-09 00:00
246846001	SAMPLE	MXR1	GAM15	23-FEB-10 14:22	DONE	CAN	03-FEB-10 00:00
246846002	SAMPLE	MXR1	GAM22	23-FEB-10 14:22	DONE	CAN	02-DEC-09 00:00
246847001	SAMPLE	MXR1	GAM25	23-FEB-10 14:22	DONE	CAN	07-OCT-09 00:00
246847002	SAMPLE	MXR1	GAM12	23-FEB-10 15:22	DONE	CAN	10-FEB-09 00:00
1202041817	MB	MXR1	GAM14	23-FEB-10 15:22	DONE	CAN	06-MAR-09 00:00
1202041819	LCS	MXR1	GAM23	23-FEB-10 15:23	DONE	CAN	02-JUN-09 00:00
1202041818	DUP	MXR1	GAM15	23-FEB-10 16:54	DONE	CAN	03-FEB-10 00:00

Instrument Run Log

Instrument Type: LSC **Batch ID: 953111**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246557001	SAMPLE	KXK2	LSCYELLOW	22-FEB-10 20:19	DONE		
246681001	SAMPLE	KXK2	LSCYELLOW	22-FEB-10 21:55	DONE		
246681002	SAMPLE	KXK2	LSCYELLOW	22-FEB-10 23:07	DONE		
246681003	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 01:17	DONE		
246681004	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 02:05	DONE		
246681005	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 02:59	DONE		
246681006	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 04:06	DONE		
246681007	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 04:50	DONE		
246681008	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 06:02	DONE		
246837001	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 07:12	DONE		
246837002	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 08:49	DONE		
246837003	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 10:25	DONE		
246837004	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 12:01	DONE		
246837005	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 13:37	DONE		
246837006	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 15:14	DONE		
247033002	SAMPLE	KXK2	LSCYELLOW	23-FEB-10 16:50	DONE		
1202042933	MB	KXK2	LSCYELLOW	23-FEB-10 18:26	DONE		
1202042934	DUP	KXK2	LSCYELLOW	23-FEB-10 20:02	DONE		
1202042935	LCS	KXK2	LSCYELLOW	23-FEB-10 21:39	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 953337**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246837005	SAMPLE	CXM2	1214	27-FEB-10 16:36	DONE		
246837006	SAMPLE	CXM2	1219	27-FEB-10 16:36	DONE		
246841001	SAMPLE	CXM2	1220	27-FEB-10 16:36	DONE		
246841002	SAMPLE	CXM2	1221	27-FEB-10 16:36	DONE		
246841003	SAMPLE	CXM2	1222	27-FEB-10 16:36	DONE		
246843002	SAMPLE	CXM2	1223	27-FEB-10 16:36	DONE		
246843003	SAMPLE	CXM2	1224	27-FEB-10 16:36	DONE		
246843004	SAMPLE	CXM2	1225	27-FEB-10 16:36	DONE		
246846001	SAMPLE	CXM2	1226	27-FEB-10 16:36	DONE		
246846002	SAMPLE	CXM2	1227	27-FEB-10 16:36	DONE		
246847001	SAMPLE	CXM2	1228	27-FEB-10 16:36	DONE		
246847002	SAMPLE	CXM2	1229	27-FEB-10 16:36	DONE		
1202043669	MB	CXM2	1230	27-FEB-10 16:36	DONE		
1202043670	DUP	CXM2	1231	27-FEB-10 16:36	DONE		
1202043671	LCS	CXM2	1232	27-FEB-10 16:36	DONE		
246837001	SAMPLE	CXM2	1019	27-FEB-10 19:56	DONE		
246837002	SAMPLE	CXM2	1020	27-FEB-10 19:56	DONE		
246837003	SAMPLE	CXM2	1021	27-FEB-10 19:56	DONE		
246837004	SAMPLE	CXM2	1022	27-FEB-10 19:56	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 953338**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246847001	SAMPLE	CXM2	1209	27-FEB-10 16:36	DONE		
246847002	SAMPLE	CXM2	1210	27-FEB-10 16:36	DONE		
1202043672	MB	CXM2	1211	27-FEB-10 16:36	DONE		
1202043673	DUP	CXM2	1212	27-FEB-10 16:36	DONE		
1202043674	LCS	CXM2	1213	27-FEB-10 16:36	DONE		
246837003	SAMPLE	CXM2	1025	27-FEB-10 19:45	DONE		
246837004	SAMPLE	CXM2	1026	27-FEB-10 19:45	DONE		
246837005	SAMPLE	CXM2	1027	27-FEB-10 19:45	DONE		
246837006	SAMPLE	CXM2	1028	27-FEB-10 19:45	DONE		
246841001	SAMPLE	CXM2	1029	27-FEB-10 19:45	DONE		
246841002	SAMPLE	CXM2	1030	27-FEB-10 19:45	DONE		
246841003	SAMPLE	CXM2	1037	27-FEB-10 19:45	DONE		
246843002	SAMPLE	CXM2	1038	27-FEB-10 19:45	DONE		
246843003	SAMPLE	CXM2	1039	27-FEB-10 19:45	DONE		
246843004	SAMPLE	CXM2	1040	27-FEB-10 19:45	DONE		
246846001	SAMPLE	CXM2	1041	27-FEB-10 19:45	DONE		
246846002	SAMPLE	CXM2	1042	27-FEB-10 19:45	DONE		
246837001	SAMPLE	CXM2	1023	27-FEB-10 19:56	DONE		
246837002	SAMPLE	CXM2	1024	27-FEB-10 19:56	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 953339**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246837001	SAMPLE	CXM2	1001	27-FEB-10 16:44	DONE		
246837002	SAMPLE	CXM2	1002	27-FEB-10 16:44	DONE		
246837003	SAMPLE	CXM2	1003	27-FEB-10 16:44	DONE		
246837004	SAMPLE	CXM2	1004	27-FEB-10 16:44	DUSE		
246837005	SAMPLE	CXM2	1005	27-FEB-10 16:44	DONE		
246837006	SAMPLE	CXM2	1006	27-FEB-10 16:44	DONE		
246841001	SAMPLE	CXM2	1147	27-FEB-10 20:05	DONE		
246841002	SAMPLE	CXM2	1148	27-FEB-10 20:05	DONE		
246841003	SAMPLE	CXM2	1149	27-FEB-10 20:05	DONE		
246843002	SAMPLE	CXM2	1150	27-FEB-10 20:05	DONE		
246843003	SAMPLE	CXM2	1151	27-FEB-10 20:05	DONE		
246843004	SAMPLE	CXM2	1152	27-FEB-10 20:05	DONE		
246846001	SAMPLE	CXM2	1153	27-FEB-10 20:05	DONE		
246846002	SAMPLE	CXM2	1154	27-FEB-10 20:05	DONE		
246847001	SAMPLE	CXM2	1155	27-FEB-10 20:05	DONE		
246847002	SAMPLE	CXM2	1156	27-FEB-10 20:05	DONE		
1202043678	MB	CXM2	1157	27-FEB-10 20:05	DONE		
1202043679	DUP	CXM2	1158	27-FEB-10 20:05	DONE		
1202043680	LCS	CXM2	1159	27-FEB-10 20:05	DONE		
246837004	SAMPLE	CXM2	1152	02-MAR-10 13:58	DONE		